

**ABANDONED HARDROCK MINES
AND THE ROLE OF NON-
GOVERNMENTAL ENTITIES**

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND
MINERAL RESOURCES

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED FIFTEENTH CONGRESS

SECOND SESSION

Thursday, March 15, 2018

Serial No. 115-41

Printed for the use of the Committee on Natural Resources



Available via the World Wide Web: <http://www.govinfo.gov>

or

Committee address: <http://naturalresources.house.gov>

U.S. GOVERNMENT PUBLISHING OFFICE

28-981 PDF

WASHINGTON : 2018

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**OVERSIGHT HEARING ON ABANDONED
HARDROCK MINES AND THE ROLE OF NON-
GOVERNMENTAL ENTITIES**

**Thursday, March 15, 2018
U.S. House of Representatives
Subcommittee on Energy and Mineral Resources
Committee on Natural Resources
Washington, DC**

The Subcommittee met, pursuant to notice, at 2:09 p.m., in room 1324, Longworth House Office Building, Hon. Paul Gosar [Chairman of the Subcommittee] presiding.

Present: Representatives Gosar, Lamborn, Wittman, Tipton, Hice, Bergman; Lowenthal, Huffman, Beyer, and Soto.

Also present: Representative Gianforte.

Dr. GOSAR. The Subcommittee on Energy and Mineral Resources will come to order. The Subcommittee is meeting today to hear testimony on abandoned hardrock mines and the role of non-governmental entities.

I ask unanimous consent that the gentleman from Montana, Mr. Gianforte, be allowed to sit with the Subcommittee and participate in the hearing.

Without objection, so ordered.

Under Committee Rule 4(f), any oral opening statements at hearings are limited to the Chairman, Ranking Minority Member, and the Vice Chair. This will allow us to hear from our witnesses sooner and help Members keep to their schedules.

Therefore, I ask unanimous consent that all other Members' opening statements be made part of the hearing record if they are submitted to the Subcommittee Clerk by 5 p.m. today.

Without objection, so ordered.

**STATEMENT OF THE HON. PAUL A. GOSAR, A REPRESENTATIVE
IN CONGRESS FROM THE STATE OF ARIZONA**

Dr. GOSAR. Today, the Subcommittee will discuss the problem of abandoned hardrock mines and the role that non-government entities can play as a part of the solution. We have held several hearings in the Subcommittee on the value of domestic mining. Hardrock mines inject tangible value into the economy, provide employment opportunities, and contribute to the overall economic well-being of the United States.

While mining projects today are subject to strict safety and environmental regulations, this was not always the case. Abandoned hardrock mines, also known as abandoned mine lands or AMLs, were mined and deserted before the era of modern regulations. These historic sites have no current responsible party, and when left unattended, they may pose health, safety, or environmental risks to the nearby communities.

Furthermore, the task of reclaiming these sites presents an ongoing financial burden at the local, state, and Federal level. While exact numbers are not known, the scale of the AML problem is extensive and hundreds of thousands of sites may exist across the country. For instance, Federal agencies spend about \$80 to \$85 million every year on hardrock AML reclamation projects.

However, the United States is lucky enough to have non-government entities willing to lend their own resources and expertise to help reclaim abandoned hardrock mines. These NGOs, which include conservation organizations, watershed groups, and industry, are third-party actors with no responsibility for existing damage at AML sites. Unfortunately, liability and regulatory concerns have discouraged third-party participation in hardrock AML projects.

In particular, the threat of liability under the Comprehensive Environmental Response, Compensation, and Liability Act, also known informally as "Superfund," as well as the Clean Water Act, are of particular concern. Under existing law, any individual, corporation, or non-profit acting on an AML site may be held responsible for historic discharges at the site, as well as other existing environmental and safety issues.

Water treatment as regulated by the Clean Water Act is an especially complicated aspect of AML reclamation. While water quality at AML sites may be drastically improved, Clean Water Act standards can be unfeasible and even impossible to meet, even with highly advanced treatment systems.

At the risk of a potential lawsuit, third-party actors may avoid projects they might otherwise try to improve. To truly empower NGO participation in abandoned mine cleanups, they must have certain protections from undeserved liability.

Let's not forget that these AML sites are already polluted, with the polluters long gone. Many of these sites are already in violation of the Clean Water Act requirements and have been for years. NGOs volunteering cleanup efforts today can help improve an already bad situation. While a so-called "polluter pays" policy is fair in principle, making groups who clean up pollution pay is not.

Some states and local communities have begun to address this problem by establishing their own public-private partnerships. Pennsylvania has shown positive results from a 1999 law which gives protections to third-party groups undertaking AML reclamation projects. Other states are interested in similar endeavors but the lack of a Federal framework and the high vulnerability to lawsuits makes that difficult.

Another hurdle to effective AML remediation is a lack of one Federal agency with full authority over this issue. This role was once filled by the U.S. Bureau of Mines, but the Bureau was closed in 1996. Today, several agencies share AML reclamation responsibilities, causing confusion and hindering efforts for an accurate nationwide inventory.

The problem of abandoned hardrock mines is a nationwide issue that may take decades, if not longer, to resolve. Non-government entities can be a powerful force in reclamation efforts, and empowering them to act will benefit communities across the United States.

I want to thank the witnesses for being here and look forward to hearing from them today.

[The prepared statement of Dr. Gosar follows:]

PREPARED STATEMENT OF THE HON. PAUL A. GOSAR, CHAIRMAN, SUBCOMMITTEE ON
ENERGY AND MINERAL RESOURCES

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We have held several hearings in this Subcommittee on the value of domestic mining. Hardrock mines inject tangible value into the economy, provide employment opportunities, and contribute to the overall economic well-being of the United States.

While mining projects today are subject to strict safety and environmental regulations, this was not always the case. Abandoned hardrock mines, also known as “abandoned mine lands” or AML, were mined and deserted before the era of modern regulations. These historic sites have no current responsible party, and when left unattended, they may pose health, safety, or environmental risks to the nearby communities.

Furthermore, the task of reclaiming these sites presents an ongoing financial burden at the local, state, and Federal level. While exact numbers are not known, the scale of the AML problem is extensive, and hundreds of thousands of sites may exist across the country. For instance, Federal agencies spend about \$80–\$85 million every year on hardrock AML reclamation projects.

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I want to thank the witnesses for being here and look forward to hearing from them today.

Dr. GOSAR. With that, I now recognize the gentleman from California, Ranking Member Mr. Lowenthal, for his 5 minutes.

STATEMENT OF THE HON. ALAN S. LOWENTHAL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Dr. LOWENTHAL. Thank you, Mr. Chairman. Thank you, Mr. Chairman. Thank you, Mr. Chairman. Three times, remember, three thank you's. And thank you for your continued focus on this issue that affects so many communities, particularly in the West. You have been a champion on this issue.

As we have discussed in this Subcommittee many times over the past few years, the roughly one-half million abandoned hardrock mines that litter this country are a huge public safety and environmental problem. Yet, unlike coal, we have no dedicated source of funding for cleaning these sites up.

The idea behind the coal abandoned mine land fee was that the coal industry had a responsibility to address its own historical legacy of pollution. The hardrock mining industry has no less of a responsibility than the coal industry.

This does not mean, though, that I feel they should be the only source of funding for this effort. I certainly do support providing opportunities for Good Samaritans to volunteer their own time and their own money toward cleaning up abandoned mines, but that is no substitute for a robustly-funded program that makes the mining industry pay their fair share to help solve a problem they helped to create.

The lack of coordination between agencies on cleaning up abandoned hardrock mines is another handicap in this effort, and an issue that I really appreciated being raised in the Majority's memo on this hearing.

This also ties in with the issue of hardrock mine permitting, which we have also discussed numerous times in this Committee. For coal mines, there is a specific law, the Surface Mining Control and Reclamation Act, that deals with permitting and establishes, really, the coordinating agency that oversees that program as well as the abandoned coal mine cleanup.

With hardrock mining, no such law exists. Instead, we are still working under the Mining Law of 1872, an obsolete, creaky, absolutely decrepit law that is as relevant to modern mining as the Pony Express is to smartphones.

I think it was President Ulysses S. Grant who passed the Mining Law of 1872, very liberal and very progressive, not because he wanted to, it was because the West needed more development. Well, I have to tell President Grant, the West has developed. We don't need to continue to do that any longer.

So, instead of having a coherent permitting system for hardrock mining, our land managers have to adapt other more general laws, such as the Federal Land Policy and Management Act, the Safe Drinking Water Act, the Clean Air Act, and more, in order to get the job done. It simply does not make any sense. It is long past time to comprehensively reform the Mining Law of 1872.

Not only could we create a permitting system designed specifically for hardrock mining and establish a reclamation program for

abandoned hardrock mines, we could also finally make it so that companies can no longer extract billions of dollars of gold, silver, copper, and other precious metals from public lands without paying a dime of royalties to the American taxpayers.

We could provide more certainty for mining companies, particularly when it comes to identifying which of our public lands are simply too precious or vulnerable to be mined. And we could finally get rid of the idea that mining is always the best and highest use of our public lands.

We do need mines. I am not saying we don't. We do need mines, there is no question about it. But we don't need to continue operating under a law that says mines are all we need.

We need parks, wilderness, hunting grounds, rivers to canoe on, and breathtaking vistas. And we need to ensure that these things are still around for our children and our grandchildren to enjoy.

That is why I am working with Ranking Member Grijalva on a new bill to reform the Mining Law of 1872. And I hope once we introduce that this spring, we will be able to start talking about comprehensive mining reform in this Committee.

I thank the witnesses for being here, and I yield back the balance of my time.

[The prepared statement of Mr. Lowenthal follows:]

PREPARED STATEMENT OF THE HON. ALAN S. LOWENTHAL, RANKING MEMBER,
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

Thank you, Mr. Chairman, and thank you for your continued focus on this issue that affects so many communities, particularly in the West.

As we have discussed in this Subcommittee many times over the past few years, the roughly half-million abandoned hardrock mines that litter this country are a huge public safety and environmental problem. Yet, unlike coal, we have no dedicated source of funding for cleaning these sites up.

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With hardrock mining, no such law exists. Instead, we are still working under the Mining Law of 1872, an obsolete, creaky, absolutely decrepit law that is as relevant to modern mining as the Pony Express is to smartphones.

Permits aren't needed under the Mining Law of 1872. The whole law is designed to give land and minerals away for next to nothing, not ensure that mines are built and operated in a responsible manner.

So, instead of having a coherent permitting system for hardrock mining, our land managers have to adapt other more general laws, such as the Federal Land Policy and Management Act, the Safe Drinking Water Act, the Clean Air Act, and more, in order to get the job done. It simply doesn't make sense. It is long past time to comprehensively reform the Mining Law of 1872.

Not only could we create a permitting system designed specifically for hardrock mining, and establish a reclamation program for abandoned hardrock mines, we could also finally make it so that companies can no longer extract billions of dollars

of gold, silver, copper, and other precious metals from public lands without paying a dime of royalties to the American taxpayers.

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I thank the witnesses for being here, and I yield back the balance of my time.

Dr. GOSAR. I thank the Ranking Member.

I am now going to introduce Mr. Gianforte for two witness introductions.

Mr. GIANFORTE. Thank you, Mr. Chairman. I am very pleased that two of my fellow Montanans are here today.

I would first like to introduce Ms. Autumn Coleman, the Program Manager for the Abandoned Mines Lands Program at the Montana Department of Environmental Quality. In addition to her experience with abandoned mines in Montana, she is also Vice President of the National Association of Abandoned Mine Lands Programs and can offer a national perspective on this issue.

Second, I would like to introduce another constituent of mine from Missoula, Missoula County Commissioner, David Strohmaier.

Thank you both for being here today. I yield back.

Dr. GOSAR. I thank the gentleman. I would like to introduce our two other witnesses.

First, a friend of mine, Mr. Chris Wood, President and Chief Executive Officer of Trout Unlimited. Thanks, Chris.

And Mr. Jeff Graves, Director of the Inactive Mine Reclamation Program at the Colorado Department of Natural Resources.

Let me remind the witnesses that under Committee Rules, they must limit their oral testimony to 5 minutes. Our lights are automatic. For the first 4 minutes, there is a green light. When it turns yellow, start summarizing. When you see it turn red, we are going to cut you off, OK? Just that quick. We want to make sure that everybody has some interaction with some questions for you.

I would like to now recognize Ms. Coleman for your 5 minutes. Thank you.

**STATEMENT OF AUTUMN COLEMAN, VICE PRESIDENT,
NATIONAL ASSOCIATION OF ABANDONED MINE LANDS
PROGRAMS; PROGRAM MANAGER, ABANDONED MINE LANDS
PROGRAM, MONTANA DEPARTMENT OF ENVIRONMENTAL
QUALITY, HELENA, MONTANA**

Ms. COLEMAN. Thank you. Good afternoon, Mr. Chairman and members of the Committee. My name is Autumn Coleman and I am the Montana Abandoned Mine Lands Program Manager, as well as the Vice President of the National Association of Abandoned Mine Lands Programs. I am honored to appear here today on behalf of the state of Montana and the AML Association.

Throughout the country, state and tribal AML programs are working hard to return lands and waters impacted by legacy hardrock mining to productive use. But available resources are very limited in comparison to the scale of the problem. Every source of help is needed to contend with that problem, but current circumstances constrain AML programs' efforts and deter motivated volunteers from assisting in that work. A Good Samaritan policy holds the potential to unbind the AML programs' hands and allow our volunteer partners to lend theirs.

While it is difficult, as you said, to put an exact number on the total hardrock AML costs or produce a perfectly accurate inventory, there is no question that the problem is massive and pervasive.

To give an example of my home state, Montana has thousands of abandoned hardrock mines, with over 200 discharging adits. Between mine waste left in creeks and rivers and acid mine drainage coming from those mines, Montana also has 2,500 miles of rivers and streams polluted by abandoned mines.

For other examples, government sources report that Arizona has an estimated 50,000 and California has 47,000 abandoned mines. Various sources, as you pointed out, cite over half a million abandoned hardrock mines nationwide. The price tag on these public safety and environmental liabilities could be in the tens of billions of dollars.

Recognizing the economic environmental and social benefits of addressing public safety and restoring lands and rivers impaired by abandoned hardrock mines, AML programs, municipalities, Federal agencies, volunteer citizen groups, and private parties have come together across the West to try to clean up some of these sites. Unfortunately, the existing state and Federal grants do not provide consistent or adequate funding.

To address the hardrock abandoned mine land problem, there is no question that the greatest need is funding. That is where our Good Samaritan volunteers come in to try to help fill that gap. To empower our Good Samaritans, the first step is to solve a thorny legal problem that is keeping our resources on the sidelines.

In Montana, I have had the privilege of working with several Good Samaritans including Trout Unlimited and local government agencies. These groups extend the reach of limited government funds by providing matching funding from outside resources.

The Montana AML program in its successful partnership with Powell County Conservation District and Trout Unlimited was successful in raising funds to reclaim the Lilly Orphan Boy Mine. Together, we have removed toxic mine waste from the banks and flood plain to restore Telegraph Creek, we stabilized a dangerous mine waste embankment, closed a hazardous mine opening, and protected a historic headframe.

While the project speaks to a success in partnership between the state and Good Samaritans, the work of the Lilly Orphan Boy Mine is not done. In the middle of the beautifully restored flood plain, there still flows acid mine drainage from an adit. The water quality below the mine has seen significant improvement following the mine waste removal, but there are still impacts from the drainage. Both our Good Samaritans and the Montana AML Program have

no choice but to walk away from these straining mines because of liability concerns.

Perpetual treatment of acid mine drainage can be a multi-million-dollar commitment, which is difficult for the states and Good Samaritans to afford. Affordable acid mine drainage treatment options could make a significant difference in water quality, but they would likely never meet all the water quality standards, therefore Good Samaritans and the state could be liable under the Clean Water Act.

The key to resolving this issue is to bring clarity and practicality to any Clean Water Act requirements borne by the states and Good Samaritans. Rather than focus on achieving the impossibility, which is perfection, the basic goals for eligible Good Samaritan projects should be simple: achieving improvements in the environment.

In this way, states and Good Samaritans would uphold the essential purpose of the Clean Water Act, which would be to improve water quality. Good Samaritan groups should also be responsible for their own work on the site and whatever pre-existing pollution remains should not be considered a Good Samaritan's responsibility.

The mechanism in both Pennsylvania's Good Samaritan law and the excellent Community Reclamation Partnerships Act offers an example of how a hardrock Good Samaritan program could be structured, by partnering Good Samaritans with the state or travel programs and legitimizing their good work in the eyes of the Clean Water Act.

In a time where we are seeing cuts in Federal AML funding, help from Good Samaritans is needed now more than ever. The AML association would welcome the opportunity to work with the Committee to enable Good Samaritans to help conquer the monumental task of reclaiming our abandoned mine lands and impaired waters.

Thank you for the opportunity to submit this statement.

If the Committee would accept it, I would like to submit for the record the Policy Resolution from the Western Governors' Association on the issue of Good Samaritan.

Dr. GOSAR. Without objection, so ordered.

[The prepared statement of Ms. Coleman follows:]

PREPARED STATEMENT OF AUTUMN COLEMAN, PROGRAM MANAGER, ABANDONED MINE LANDS PROGRAM, MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY ON BEHALF OF THE NATIONAL ASSOCIATION OF ABANDONED MINE LAND PROGRAMS AND THE INTERSTATE MINING COMPACT COMMISSION

INTRODUCTION

Good afternoon Chairman Gosar, Ranking Member Lowenthal, and members of the Committee. My name is Autumn Coleman and I am Program Manager of the Abandoned Mine Lands (AML) Program within the Montana Department of Environmental Quality. I also serve as Vice President of the National Association of Abandoned Mine Land Programs (NAAMLPL). Thank you for the opportunity to provide the state of Montana's perspective as well as NAAMLPL's position on the role of non-governmental entities in hardrock AML work.

NAAMLPLP represents 31 state and tribal AML programs across the Nation. Many of these programs have earned delegations of authority from the Federal Government to implement national environmental laws such as the Surface Mining Control and Reclamation Act (SMCRA) and Federal Water Pollution Control Act (otherwise known as the Clean Water Act or CWA).

The topic of the hearing today is of great interest and importance to the states and tribes represented by NAAMLPLP. Throughout the country our AML programs are working diligently to restore lands and waters impacted by legacy hardrock mining, but available resources are very limited in comparison to the scale of the problem before us. Every source of help is needed to contend with that problem, but current circumstances constrain the states' efforts and deter motivated, well-intentioned volunteers from assisting in that work. "Good Samaritan" policy holds the potential to unbind the state AML programs' hands and allow our potential volunteer partners to lend theirs.

We commend the Committee for its continuing efforts to establish an effective way for both state and tribal programs and Good Samaritans to work toward restoring water resources impacted by historic mine pollution. We appreciate the opportunity to share our perspective on how this can be accomplished. My testimony today will address the current status of hardrock abandoned mine lands, the efforts underway to reclaim these sites and remediate their impacts, and the potential for a Good Samaritan program to encourage and enhance those efforts.

THE HARDROCK ABANDONED MINE LAND PROBLEM

Background

The United States has a rich history of hardrock mineral mining. The role that gold, silver, and copper mining played in the settling of the American West and the rise of a fledgling industrial nation are the stuff of legend. Hardrock mining continues to this day to be a mainstay of vibrant economies throughout the country and especially in the West, but today's mining is conducted very differently than it was in the past. Today's mines are required to be fully reclaimed and impacts are carefully monitored, but in a time prior to modern day controls and understanding of environmental impacts, mines were often abandoned in disrepair. Many of those historic mining sites have enduring impacts today, which has resulted in a massive environmental and economic problem.

Following the passage of comprehensive national environmental laws in the 1970s, the states and tribes have largely taken the lead in fashioning and implementing effective programs for the regulation of mining and its impacts, including reclaiming and restoring lands and waters impacted by historic abandoned mines. Every year our AML programs are working to reclaim open mine pits, stabilize cave-ins and landslides, close mine shafts, remove left behind equipment and mining waste, and restore rivers and streams impacted by acid mine drainage (AMD). The safety hazards associated with these sites result in injuries and even deaths each year, and environmental impacts like AMD are incredibly damaging in their own right. While most will recall visions of orange rivers following the blow out of a mine pool at the Gold King AML site, few realize that there are thousands of similar sites scattered throughout the West. In fact, many times the amount of impaired water released during the Gold King event drain out of abandoned mines throughout the country every day. These water impairments degrade ecosystems and have widespread adverse economic impacts, including the loss of recreational fisheries and contamination of water and irrigation supplies.

While it is difficult to put an exact number on total hardrock AML costs or to produce a perfectly accurate inventory of remaining sites, there is no question that the hardrock AML problem is massive and pervasive, and would be counted in tens of billions of dollars. Today's environmental laws are meant to hold polluters to account, but because the historic mining in question happened so long ago, there are no potentially responsible parties available to pay for their cleanup; these sites are an unfunded public cost. Abandoned mines are everyone's problem but no one's responsibility.

Hardrock AML Inventory

Over the years, several studies have been undertaken in an attempt to quantify the total hardrock AML cleanup need. Despite these efforts, there is currently no comprehensive, fully accurate national inventory of the hardrock AML problem. 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. The AML programs are therefore generally well positioned to direct limited reclamation dollars to best protect public health and

safety and the environment without the need for significant enhancements to AML inventories. To the extent that the Committee finds additional inventorying efforts expedient for policy making, separate funding would ideally be provided for those efforts. Otherwise, the states and tribes generally find that the best use of limited hardrock AML funding is to accomplish as much reclamation and restoration work as possible.

The state of Montana's hardrock AML inventorying efforts provide a good case study. In the early 1990s Montana conducted a comprehensive inventory of abandoned hard rock mines and began work in earnest to close hazardous mine openings. Of the 3,500 abandoned hard rock mines in the inventory, over 300 of those were designated as high priority sites due to the risk to human health and the environment from heavy metals and arsenic. As part of the inventory, Montana tallied 217 discharging adits. Between the mine waste left in creeks and rivers in Montana and the acid mine drainage coming from those adits, Montana has almost 2,500 miles of rivers and streams impacted by metals and arsenic from abandoned mines. New abandoned mines are being discovered as people move further into the wildland-urban interface and as forest fires move through and expose new abandoned mine hazards previously unknown.

Funding for Hardrock AML

Current state and tribal agencies work 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 over the years. 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 rely on their Federal partners. Unfortunately, most of these existing Federal and state 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 authorized under SMCRA. While the vast majority of this funding is used to address coal AML and AMD problems, *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. The small amount of money that SMCRA states have been able to spend on physical safety hazards at hardrock sites is making a difference.

To make more progress with hardrock AML there is no question that the greatest need is funding. Recognizing the potential economic, environmental and social benefits of remediating lands and streams impaired by abandoned hardrock mines, states, tribes, municipalities, Federal agencies, volunteer citizen groups and private parties have come together across the West to try to clean up some of these sites. In Montana, our local governments and Good Samaritan partners have the capacity to raise funds inaccessible to the state. Leveraging outside grant funds with state and Federal funds is the only way we can afford these cleanups. However, due to questions of liability, many Good Samaritan efforts, as well as the states' and tribes' own efforts, have been stymied. To encourage public-private partnerships and empower state and tribal AML programs, first we need to solve the thorny legal problem that is keeping private resources on the sideline, increasing the burden on public funds, and prolonging harm to our citizens and environment.

THE NEED FOR A GOOD SAMARITAN PROGRAM

The Clean Water Act (CWA) was designed to clean up our waterways and safeguard the health of our citizens and environment, and the country is undoubtedly a better place as a result. It is therefore a great irony that this law, which was meant to facilitate water quality, now stands in the way of water quality improvements at AMD sites. As a cornerstone of Federal Environmental Law, the CWA is intentionally very strict in the restrictions and penalties directed at those who impact our Nation's water resources. As an unintended consequence of that strict design, in particular its purposefully stringent and inflexible standards for water treatment, CWA requirements do not comport well with the realities of AMD treatment. With regard to this issue, John Whitaker, a White House staffer who played an integral role in the passage of the Clean Water Act, recalls the following:

“When I and other White House staffers responsible for environmental initiatives during the Nixon administration recommended to the President new water pollution control strategies for congressional consideration, our

focus was primarily on sewage treatment and industrial effluent, not the acid mine drainage problems from abandoned mines. We should have had more foresight . . . We did not envision at the time that the day would come when the zero discharge provision would prevent Good Samaritans from cleaning up acid mine drainage . . .”¹

This dilemma has been confirmed by the Environmental Protection Agency on many occasions, and is summarized well by the following quote from an EPA Administrator’s testimony before Congress in 2006:

“Under the CWA, a party may be obligated to obtain a discharge permit which requires compliance with water quality standards in streams that are already in violation of these standards. . . . Yet, in many cases, the impacted water bodies may never fully meet water quality standards, regardless of how much cleanup or remediation is done. By holding Good Samaritans accountable to the same cleanup standards as polluters or requiring strict compliance with the highest water quality standards, we have created a strong disincentive to voluntary cleanups. Unfortunately, this has resulted in the perfect being the enemy of the good.”²

The crux of the problem is that the Federal statutory paradigm for treating AMD-impacted water is not well-suited to the unique characteristics of these sites. The fundamental issue with AMD treatment is that impacted waterways are by definition already impaired, and in the case of abandoned mines, the originators of the pollution have long since gone out of business. Even so, due to joint and several liability under the CWA, any party who re-affects an AMD-impacted site risks being held permanently responsible for fully eliminating the existing discharge, even where the pollution is the result of legacy mining, the project is significantly improving water quality, the party in question has no connection to the pollution, and no recklessness or negligence is exhibited.

The EPA has acknowledged and attempted to mediate the conflict between AMD treatment and the CWA in the past, but the Agency’s efforts have not meaningfully facilitated progress. The EPA’s guidance memoranda of 2007³ and 2012⁴ regarding Good Samaritan involvement in such projects, and the “comfort letters” issued by the Agency pursuant to that approach, unfortunately led to very few additional projects being undertaken. The primary remaining obstacle is that these projects are still potentially subject to citizen suit liability under the CWA. This means that even where these projects are conducted under established procedures, condoned by the EPA and/or the state NPDES authority, and are improving water quality by reducing pollution loading, they could still be sued by a third party and be assessed immense, perpetual liability. State and tribal AML programs could similarly still be assessed liability and compelled to take immediately required, expensive, tax-funded action to return a given site to an impracticable condition, which already strained state budgets must avoid.

There can be little question that obstacles posed by the CWA to the treatment of AMD-impacted water have significantly slowed progress with such projects throughout the country. State and tribal AML programs must choose between forgoing these projects or proceeding and exposing themselves to significant liability risks. While the need for resolution of these issues has been widely agreed upon for some time, the specifics of the ideal solution have long been debated—and it is clear that debate is stalling desperately needed water treatment.

EXAMPLES OF THE NEED FOR GOOD SAMARITAN PROTECTIONS IN MONTANA

The Montana AML Program in partnership with the Powell County Conservation District and Trout Unlimited was successful in raising the funds to reclaim an abandoned lead and silver mine in the mountains near the state capital. This project had been shelved by the Montana AML Program due to insufficient funding for hardrock abandoned mines, but our Good Samaritan partners were able to secure the funding needed to resurrect it. In 2016, the Montana AML Program and TU completed the

¹“Cleaning Up Abandoned Hardrock Mines In The West: Prospecting for a Better Future”—Limerick, Ryan, Brown, and Comp, Center for the American West.

²Benjamin H. Grumbles, Assistant Administrator for Water, U.S. Environmental Protection Agency, Testimony before the Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, U.S. House of Representatives, March 30, 2006, pp. 2–3.

³“Interim Guiding Principles for Good Samaritan Projects at Orphan Mine Sites and Transmittal of CERCLA Administrative Tools for Good Samaritans,” June 6, 2007.

⁴Clean Water Act Sec. 402 National Pollutant Discharge Elimination System (NPDES) Permit requirements for “Good Samaritans” at Orphan Mine Sites,” Dec 12, 2012.

Lilly Orphan Boy Mine Reclamation Project. We removed toxic mine waste from the banks and floodplain to restore Telegraph Creek, we stabilized a dangerous mine waste embankment, closed a hazardous mine opening and protected a historic headframe. While this project speaks to a successful partnership between the state and Good Samaritans, the work at the Lilly Orphan Boy Mine is still not done. In the middle of the beautifully restored floodplain flows acid mine drainage from an adit. The water quality below the mine has seen significant improvement following the removal of the mine waste in the creek, but there are still impacts from acid mine drainage. Both TU and the Montana AML Program have walked away from addressing these draining adits because of the concerns over the Clean Water Act liability.

Treatment of acid mine drainage is a multi-million dollar commitment which neither the state nor their partners can raise on a consistent or predictable basis. Less expensive options, such as passive wetland treatment cells and automatic lime dosers, will generally not meet all in-stream water quality standards or discharge permit parameters. The other mechanism for eliminating acid mine drainage is to plug mine openings, but those strategies are also costly and may present safety concerns. The result is that adits continue to drain into rivers and streams impacting fisheries and hampering economic development.

Montana continues to address abandoned mine lands as best it can given funding limitations and potential liability for discharge exceedances. In instances where state and tribal AML programs are able to proceed despite liability concerns, some success has been found in source removal actions to address water quality. For example, Montana recently recommended de-listing Soda Butte Creek, a tributary to the Lamar River in Yellowstone National Park, for metals following a tailings impoundment (dam) removal project. This de-listing of an impaired waterbody for metals following abandoned mine reclamation is the first of its kind in Montana and is critical for fisheries in Yellowstone National Park. Much more of this type of progress could be made if the states, tribes, and their Good Samaritan partners could be provided consistent, reasonable relief from unnecessary liability.

PENNSYLVANIA EXAMPLE OF SUCCESSFUL STATE-LEVEL GOOD SAMARITAN PROGRAM

We have seen the positive results from an effective approach to AMD treatment in Pennsylvania, which enacted its own Good Samaritan law to provide protections related to state clean water requirements for groups and individuals who were not legally responsible but who voluntarily undertook AML reclamation or AMD treatment projects. Pennsylvania recognized long ago that with the availability of these volunteer efforts and advances made in our understanding of mine drainage, many of the state's abandoned coal mine AMD discharges could be eliminated or improved at little or no cost to the Pennsylvania tax-payer if only the potential for undeserved liability could be addressed.

To that end, Pennsylvania enacted its Environmental Good Samaritan Act (EGSA) of 1999,⁵ under which 79 AMD treatment projects have been undertaken in various partnerships between the Commonwealth, local governments and municipal authorities, individual community supporters, corporations, watershed associations, and conservancies. Much like previous Federal Good Samaritan proposals, projects eligible under the EGSA must abate water pollution resulting from abandoned mine lands and eligible participants must meet certain conditions demonstrating that they and the project are worthy of liability protections offered by the program. These projects are spread among 20 counties and 53 distinct groups, and the majority are active today. State-level liability protections have enabled these projects to occur without risk of undue liability under state law, but risks remain for the Commonwealth and their partners under Federal law, and still more projects could have been pursued if not for the remaining specter of liability.

Pennsylvania's experience in the almost 20 years since the passage of the EGSA demonstrates that there are countless opportunities for Good Samaritans to assist the AML programs, especially in the treatment of AMD-impacted water. The Commonwealth and its partners' work under the EGSA provides a proof of concept for the beneficial, responsible participation of such groups in the AML programs' work.

CONSIDERATIONS IN CRAFTING GOOD SAMARITAN LEGISLATION

Over the course of the past 15 years, several Good Samaritan bills have been introduced in the U.S. Congress, each of which offered a unique approach. From the states' and tribes' perspective, we have several recommendations that we believe

⁵Title 27 Pennsylvania Consolidated Statutes Annotated Sections 8101–811.

should be considered in any Good Samaritan legislative effort. We offer the following considerations based on our AML programs' decades of firsthand experience contending with hardrock AML issues, our long-time participation in the Good Samaritan policy debate, the lessons learned through Pennsylvania's successful state-level Good Samaritan program, and the recent success of the Community Reclamation Partnerships Act.

To summarize the preceding section: the specter of undeserved liability is constraining much needed hardrock AML work. At the center of concern is the simple fact that, as noted above, NPDES permits are not well-suited for treating AMD-impacted water. The key to resolving this issue is bringing clarity and practicality to any Clean Water Act compliance responsibilities borne by the states and potential Good Samaritan partners as they conduct AMD water treatment work. The states' tribes' experience demonstrates that this can be accomplished while maintaining uncompromising care in how these projects are conducted. Through commitment to that goal and cooperation among stakeholders, a process can be designed that finds the necessary balance between the accountability that must be maintained and the flexibility that must be provided to allow AMD work to move forward.

The Need for Reasonableness

To achieve sensible, effective Good Samaritan policy, the focus must be on designing a system that is immanently reasonable. We must recognize that the potential Good Samaritan AMD projects in question are fundamentally different from other classes of projects and therefore should not require the same level or type of regulatory requirements. The waters in question are already impaired and the responsible parties are long gone, meaning that certain aspects of the CWA are inordinately strict in the context of these projects; most notably the zero discharge standard and the application of perpetual responsibility. Rather than focus on achieving impossible perfection or holding no-longer-existent originators of the pollution to account, the basic standards for eligible Good Samaritan projects should be simple: achieving improvements in the environment. In this way, Good Samaritan legislation would uphold the purposes of the CWA and further its effectiveness by helping to fulfill its essential goal of improving water quality.

Toward the goal of reasonable Good Samaritan policy, perhaps the most important recognition needed is that partial remediation is acceptable. Some abandoned mine problems are so intractable that it is not possible to achieve "total cleanup" even with today's advanced technologies, but a "limited" cleanup can result in very significant environmental improvement. We also know that, in some circumstances, even where total cleanup is technically possible, at some juncture the cleanup effort reaches a point of diminishing returns and the money would be better spent on addressing other sites.

These realities of AMD treatment have led many state AML programs, particularly in the East, to adopt an approach that attempts to maximize the number of discharges that receive treatment to the highest standard practicable, with particular focus on supporting biological and other functions of the water resource. Decisions regarding water treatment are based on practical limitations such as available space, technology options, landowner cooperation, and cost. While these projects often do not strictly adhere to NPDES water quality based effluent requirements, they nevertheless significantly improve water quality in the receiving streams, the aggregate effect of which produces drastic improvements in overall health of the greater watershed at a comparatively low cost. This approach has led to great strides in restoring AMD-impacted watersheds, as well as for the community health and livelihoods that depend on those watersheds. Mine drainage at these sites is being treated, pollution is substantially reduced, and noticeable water quality improvements are being made, and yet these efforts are still being constrained. It would be shortsighted policy to continue to disallow this type of partial treatment strategy when so much good can come as a result.

Another key recognition that must be made is that groups conducting volunteer cleanups should not be held as permanently responsible for the sites at which they conduct their work. The courts have created an expectation that states and volunteer groups affecting an existing source of water pollution may be held as "operators" under the Clean Water Act and compelled to comply with full

requirements of and indefinite liability associated with an NPDES discharge,^{6,7} even where those requirements are clearly unreasonable and the liability clearly undeserved with respect to the parties in question. Under these circumstances, states, tribes and potential volunteers are heavily disincentivized from taking on cleanup projects, especially where the expectation is that full NPDES requirements cannot be met. Rather, Good Samaritan groups should only be responsible for their own work on the site. As long as that work is positively affecting the environment and no negligence is committed, whatever pre-existing pollution remains should not be considered the Good Samaritan's responsibility. The Clean Water Act policy that anyone who affects an impaired site is held responsible for the entirety of the pollution in perpetuity is meant to hold polluters to account, but in the case of Good Samaritan projects the groups in question are decidedly not polluters. Ensuring that only worthy groups receive designation as Good Samaritans is certainly a key consideration in Good Samaritan policy, and it is the states' and tribes' experience that our AML programs are well-equipped to make this distinction appropriately. Once a Good Samaritan group's innocence with respect to the site can be established, it should be understood that holding them to account for past pollution is unhelpful—rather than encouraging higher water quality it precludes any improvement at all.

Furthermore, if the protections provided to Good Samaritan groups would have end dates, meaning that protections would only apply during the time frame of the work on the project, many potential Good Samaritans will be reluctant to engage in activities for which they might incur liability beyond the termination date of work, as would be the case with water treatment projects. Good Samaritans must be supplied with liability protection in perpetuity in order to ensure that they can afford to undertake the project. Similarly, an expectation that the applicant has sufficient financial resources to carry out all operation and maintenance activities related to the project may be prohibitive. Most potential Good Samaritan groups, including state and local governments, will not have the type of financial resources available to fulfill or guarantee this requirement.

A third important recognition is that onerous, complex requirements for achieving status as a Good Samaritan and securing project approval will at some point be counterproductive to encouraging more work. There has been a tendency in past Good Samaritan proposals for the requirements to become very similar if not nearly identical to that of standard NPDES permits, which would ultimately mean little if any effective difference from the status quo would be achieved.

Potential Good Samaritans, in particular non-governmental organizations (NGOs), tend to have limited funding, often in the form of discrete grants. They often acquire funding for watershed restoration projects in small incremental amounts over long periods of time. Overly burdensome permitting requirements will therefore be cost-prohibitive, as many NGOs will not be able to afford compliance with overly elaborate permitting requirements. Much of this permitting activity would have to be completed before the project is approved and many NGOs will be reluctant to expend a substantial amount of their limited grant funding to develop a project that may never be implemented. States similarly must be very careful in how they proceed with their limited hardrock AML funding. For these reasons it must be acknowledged that for Good Samaritan policy to be effective, there must be careful attention paid to constructing a system that is not unduly burdensome on states or their potential volunteer partners. A reasonable balance must be struck between ensuring the project will proceed properly and that it will be possible to do the project at all—and the states' experience demonstrates that this balance is achievable.

As an alternative to the stand-alone permitting system often proposed by past legislation, we suggest consideration of a procedure similar to that utilized by the Commonwealth of Pennsylvania's successful Good Samaritan program. The EGSA utilizes letters of approval that apply to a specific AML or AMD project rather than permits, and is generally more workable and less cost-prohibitive to the efforts of potential Good Samaritans. For example, grant applications include descriptions of the proposed projects, but are not required to submit detailed engineering plans until the basic aspects of the project have been approved, thereby preventing the potential Good Samaritan group from wasting limited resources. Additionally, EGSA

⁶Pursuant to the Fourth Circuit Court of Appeals decision in *West Virginia Highlands Conservancy v. Huffman* to designate water treatment facilities as point-source discharges, West Virginia must now obtain CWA permits for bond forfeiture sites. There have been concerns that this ruling could be extended to AML projects being undertaken by the states and tribes under SMCRA.

⁷It is important to note that AML reclamation is handled separately and distinctly from bond forfeiture sites, and that these sites, and any companies experiencing bond forfeiture would not expectedly be eligible for participation under a Good Samaritan Program.

approval provides Good Samaritan projects involving treatment systems that require long-term operation and maintenance perpetual protection from liability, rather than only during the duration of a permit, which quells concerns with long-term liability.

A State-lead Partnership Model; Working within Existing Frameworks

There are many state and tribal agencies throughout the country whose mission is to reclaim hardrock AML sites and restore AMD-impacted water. While the focus of Good Samaritan policy discussions is generally on protecting volunteer groups, providing protection for these state and tribal agencies is an equally critical, if not more fundamentally needed step in encouraging this type of work. The agencies that have been ordained for this specific purpose, and the environmental law frameworks they work within, are not being allowed to fulfill the mission they were designed to do. The circumstances described above continue to discourage if not totally preclude many state's and tribe's ability to treat water under their dedicated AML programs; and even in states that have been able to proceed with some amount of water treatment work, these circumstances have been a severely complicating factor. Recognizing this, we recommend that Good Samaritan policy first seek to establish a means for the states and tribes to fulfill their missions and conduct this work free from the unhelpful aspects of the CWA. Building on that notion, working through existing state and tribal regulatory frameworks to the extent possible and emphasizing a state-lead partnership approach will lead to optimal results for potential Good Samaritan legislation.

In accordance with the principles of state primacy contained in laws such as SMCRA and the Clean Water Act, it is essential that Good Samaritan programs be administered by state and tribal agencies. The states and tribes best understand the specific complexities associated with abandoned mine lands within their borders and tend to have better working relationships with potential Good Samaritans. Our experience indicates that reliance on the state and tribal AML programs is crucial to achieving workable Good Samaritan policy. For example, one of the key components of the Pennsylvania EGSA program's success is its reliance on the state AML program's long-standing expertise in their field. Under the EGSA, all activities related to a given project proceed under the guidance and approval of the PADEP, which utilizes its expertise and long resume of successful water treatment projects to appropriately adjust requirements to match the scale and complexity of the proposed project and to ensure that only well-conceived projects move forward. PADEP works very closely with Good Samaritan volunteers to assist them in the process of assessing circumstances, receiving necessary approvals, designing a project, and conducting and overseeing work on the project.

Optimal Federal Good Samaritan legislation will seek to emulate this type of partnership approach, which was also utilized in the Committee's recent Community Reclamation Partnerships Act (H.R. 2937). Partnership between state agencies and Good Samaritan groups is of great mutual benefit—Good Samaritan groups can be guided through the process of pursuing a project with the unique experience of the AML programs, and the program is able to harness the passion and financial resources available in these groups toward their mutual goals of improving water quality.

The Scope of Eligibility

The scope of liability protection is another key consideration for Good Samaritan policy. The states and tribes have several recommendations related to the necessary scope of protection intended to ensure that Good Samaritan policy has its intended effect of meaningfully facilitating AMD treatment work.

For example, Good Samaritan project eligibility should be extended to projects undertaken on state, tribal, and private lands in addition to Federal lands. Pollution problems know no such boundaries and must be addressed wherever they occur.

Further to that point, it has been the states' experience, in particular through Pennsylvania's EGSA, that the extension of protections to innocent landowners is critical to a viable Good Samaritan program. Many landowners will not cooperate if they are not distinctly protected, because if not, they risk being held permanently responsible for untenable water treatment requirements simply by allowing a project to take place on their property. The inclusion of language speaking directly to the potential liabilities of landowners will help ensure the success of Good Samaritan legislation.

Many previous Good Samaritan legislative efforts have focused only on liability with regard to the Clean Water Act. While this is certainly the most pronounced issue, it should be noted that Good Samaritan remediation efforts may also be stifled by the prospect of incurring liability under a variety of other Federal

environmental laws such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), depending on the situation. The key here is that if potential Good Samaritans do not feel completely assured of liability protection related to these additional laws, many potential Good Samaritan groups will have little choice but to forego working at sites where the risk is simply too great a threat to their organization's financial health. A system that allows liability coverage to be tailored to the situation and the treatment strategy at hand would greatly help to alleviate these concerns.

The considerations recommended above will result in more prevalent and effective AMD water treatment work and mine waste removal actions by the state and tribal AML programs, additional engagement of private funding resources in Good Samaritan groups, and a more effective overall implementation of Federal Environmental Law with respect to these sites. Without such improvements, the difficulties in CWA's application to abandoned AMD pollution will continue to constrain and delay much-needed progress.

CONCLUSION

The legacy of abandoned mine lands still looms large in many of our Nation's communities. In the pursuit of eliminating the lingering effects of abandoned mines, and in particular the impairment of water resources, every source of help is needed. To that end, the enactment of reasonable CWA (and other Federal environmental law) liability protection for prospective Good Samaritan groups and state and tribal AML programs holds immense potential benefit. The states' experience demonstrates that the Good Samaritan idea works, but the Federal-level obstacles to further enfranchisement of these groups must be removed. In a time when funding available from SMCRA is approaching expiration, and Federal Budget proposals are continuing to scale back on our Federal partners' hardrock AML funding, help from Good Samaritans is more needed than ever. As Congress continues to consider how to contend with the multi-billion dollar public cost represented by remaining hardrock AML problems, it is clear that every source of help is needed. NAAML^P would welcome the opportunity to work with the Committee in designing balanced, sensible, effective Good Samaritan legislation.

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

QUESTIONS SUBMITTED FOR THE RECORD BY REP. GOSAR TO MS. AUTUMN COLEMAN,
VICE PRESIDENT OF NAAML^P AND ABANDONED MINE LANDS PROGRAMS MANAGER
AT MONTANA DEQ

Question 1. At many reclaimed sites, long-term water treatment is often necessary to prevent future acid mine drainage from occurring. However, many third-party actors do not have the means to manage treatment facilities in-perpetuity.

- *In your view, what is the best approach for handling the long-term maintenance of water treatment systems?*

Answer. Acid Mine Drainage (AMD) treatment is often prohibitively expensive for potential Good Samaritans. Most of the Good Samaritan discussion focuses on the need to incentivize these actors to make water quality better without the fear of becoming liable for not making it perfect. This question points out another dimension of the Good Samaritan's dilemma. Their potential exposure extends not just to liability for treatment to "perfect" quality, but also for such treatment over an unlimited length of time. Liability for long-term operation and maintenance (O&M) requirements must also be addressed. If steps can be taken to design a practicable system for long-term O&M at Good Samaritan projects, it may be possible to improve these groups' ability to participate.

For example, while decades-long O&M plans will be too onerous for the vast majority of potential Good Samaritans to bear, a more reasonable 5–10 year plan may be tenable. The key is for these plans to be flexible and provide a distinct end point to a Good Samaritan's responsibility at a site. The abandoned mine lands program's ability to review project plans and assess their feasibility before approving a Good Samaritan project will ensure that O&M requirements are well designed for their purpose.

Good Samaritans cannot be expected to sign up for an indefinite and unpredictably expensive responsibility at treatment site, but that extreme extent of responsibility and planning is unnecessary. Circumstances at these sites change over time and updated decisions must be made about treatment as time goes on, for example

where technology advances and improvements can be made. It is also possible that new funding and personnel resources become available as time goes on, especially after a system begins to demonstrate water improvements and its value becomes more obvious. To accommodate those circumstances and allow the use of more practical, short-term O&M plans, it is critical that O&M responsibilities can be split or shared among multiple parties.

The level and types of O&M anticipated for Good Samaritan projects should be flexible and based on specific circumstances and goals at a given site. The overall goal should be accomplishing the most efficient, effective improvements in water quality given the resources available, and O&M requirements should be scaled to meet those more modest goals. Finding the correct balance for O&M requirements at a given site is important to ensure that enough funding and personnel resources are available to address other sites in the region, in order to maximize the restorative effect a network of AMD treatment projects can have.

In Montana, when we evaluate the best approach for AMD treatment we consider the following items. Plans for O&M at AMD treatment projects should address the same basic components whether it is a large-scale active AMD treatment system or a smaller passive AMD treatment system such as a doser or wetland cell.

1. The scale of the existing problem and our water quality goals;
2. Feasibility of treatment technology given the site conditions and selection of the best available option given the resources;
3. Monitoring plan to demonstrate water quality improvements;
4. Funding source and annual budget for operations and maintenance (O&M);
5. Anticipated life cycle;
6. O&M plan and responsibilities; and
7. Plan for decommissioning the treatment system at the sunset of funding.

Dr. GOSAR. Thank you, Ms. Coleman.

I now recognize Mr. Wood for his conversation for 5 minutes.

**STATEMENT OF CHRIS WOOD, PRESIDENT AND CEO, TROUT
UNLIMITED, ARLINGTON, VIRGINIA**

Mr. WOOD. Chairman Gosar, Ranking Member Lowenthal, and other members of the Subcommittee, my name is Chris Wood and I have the privilege of serving as the President and CEO of Trout Unlimited.

I want to thank everyone here for their leadership on this issue of cleaning up abandoned mines. This Committee and then the entire House of Representatives played a really vital role in passage of the Community's Reclaimers Act, which was very significant earlier this year. Hopefully, today will be a step toward applying similar common-sense protections for would-be Good Samaritans who wish to clean up abandoned hardrock mines as opposed to coal mines, which the Community's Reclaimers Act implicates.

My testimony today is on behalf of 300,000 members and supporters nationwide. Abandoned hardrock mines are ticking time bombs that dot the western landscape. The EPA estimates that 40 percent of western headwater streams are negatively affected by abandoned mines.

The reason that we care so much about this issue is because those headwater streams are exactly where all of our native trout are holed up these days, not to mention that they are also the sources of drinking water of tens of thousands of downstream communities.

The challenges for organizations such as mine who are dedicated to protecting and restoring trout and salmon and the rivers in

which they live, is that in some cases if we touch abandoned mine waste, we become part of that chain of liability that Autumn mentioned.

If, for example, we were to improve water quality by 95 percent by spending \$200,000, but do not have either the technical capacity or perhaps the additional \$1 million or \$2 dollars that we might need to get to 100 percent of water quality standards, we may be liable under the Clean Water Act. That is a bit of simplification of the scenario on the ground, but it is also a reality.

Good Samaritans like Trout Unlimited have no legal obligation to take on abandoned mine cleanup. We do so simply based on a desire to improve water quality and watershed health.

This is a proposal without critics. There is no constituency for acid mine drainage. Everyone, from our partners such as Tiffany & Company, to mining companies such as Newmont, Freeport-McMoran, Kinross, and a host of state and Federal agencies, everyone wants clean water and fishable water for their communities and their children.

Despite a general lack of opposition, Good Samaritan legislation has been a challenge, so we wanted to recommend an approach that we think might work. Specifically, we urge the Committee to consider legislating a pilot program, whereby EPA in coordination with the states could authorize 5 to 10 projects or so in the western states to allow us to prove that the Good Sam concept can be turned into reality.

In pursuit of our mission, Trout Unlimited has restored streams and rivers damaged by abandoned mines from the Appalachian Coal Fields to the hardrock mining areas of the Rocky Mountain states.

Theodore Roosevelt once defined conservation as the application of common sense to common problems for the common good, and no definition could better describe the need for Good Samaritan legislation.

Thank you, Chairman.

[The prepared statement of Mr. Wood follows:]

PREPARED STATEMENT OF CHRIS WOOD, PRESIDENT & CEO, TROUT UNLIMITED

Chairman Gosar, Ranking Member Lowenthal, and Subcommittee members, my name is Chris Wood. I am the President and CEO of Trout Unlimited. Thank you for the opportunity to testify today on abandoned hardrock mines and the role of non-governmental entities in helping to clean up pollution from them.

I offer the following testimony on behalf of Trout Unlimited and its nearly 300,000 members and supporters nationwide. My testimony will focus on the need for legislation and funding to facilitate the cleanup of abandoned hardrock mine lands and water, and specifically the need to facilitate abandoned hardrock mine cleanups by "Good Samaritans"—those individuals or entities who have no legal obligation to take on an abandoned mine cleanup, but who wish to improve water quality and watershed health.

We deeply appreciate the Subcommittee's focus on this issue, and we urge the Subcommittee to continue to work with us, the states, the Interior Department, the EPA, and other stakeholders to fashion a bill to help provide an important tool to facilitate cleanups. Last year's successful passage of the Subcommittee's "Community Reclaimers" bill to facilitate cleanup of abandoned coal mines was a great step forward.

But we need both the coal and hardrock Good Sam bills to cross the finish line and get enacted into law. Looking back, I was very involved in the effort to develop a hardrock Good Sam bill that passed the Senate Environment and Public Works

Committee—but got no further—all the way back in 2006. We are 12 years down the road and past due for passage of Good Sam legislation.

In the vein of making it more, rather than less, likely that a bill could pass Congress this year, there are several legislative approaches that could work well for Good Samaritans that might reduce potential opposition to the Good Sam concept. Specifically, we urge your attention to the idea of legislating a pilot program whereby EPA, in coordination with the states, could authorize 5–10 projects in the western states to allow us and others to prove that the Good Sam concept can be turned into reality. Last Congress' Gardner, Bennet, Tipton Draft measure could be used as the permit mechanism for the pilot programs. Title III, of Representative Lamborn's H.R. 3843 of the previous Congress, could also work as the pilot project permit mechanism.

Whatever the legislative solution might be, TU is ready to go to work to clean up abandoned mine pollution. TU's mission is to conserve, protect and restore North America's trout and salmon fisheries and the watersheds they depend on. In pursuit of this mission TU has worked to restore streams and rivers damaged by pollution from abandoned mines from the Appalachian coalfields in Pennsylvania to the hardrock mining areas of the Rocky Mountain states, and my testimony is based upon these experiences. We need such legislation and additional funding to expand the pace and scale of work to clean up abandoned mines. We seek a bipartisan Good Sam bill to address what is clearly a bipartisan, multi-state, problem.

Allow me to take a few moments to describe one of the Nation's worst remaining pollution problems—the scourge of acidic and toxic orange colored abandoned mine pollution coming down into the headwaters of the West's great rivers.

ABANDONED MINE POLLUTION IS A WIDESPREAD PROBLEM BUT MUCH OF IT IS FIXABLE

Americans want clean water. Americans do not want orange water running through their backyards and into their rivers.

Trout Unlimited members and staff are passionate about cleaning up abandoned mine pollution. Even a cursory look at the damages to our streams, rivers and groundwater caused by pollution from abandoned coal and hardrock mines show that we have a long way to go to achieve clean water for all. There is no better time than right now, as the Trump administration and the 115th Congress discuss including water clean-up work as part of an infrastructure package, to address cleanup of pollution from abandoned coal mine.

Sadly, much of abandoned mine pollution is “out of sight, out of mind.” But in August 2015, we received a vivid view of the mess. The 3 million gallons spill of polluted water from the Gold King mine near Silverton, Colorado showed the world what TU members and staff who live in mining country see every day: orange, polluted water leaking out from abandoned mines.

Cleaning up abandoned mines is challenging and expensive. That does not make it any less important. The legacy of historical mining practices—thousands of abandoned coal and hardrock mines with an estimated cleanup cost in the billions of dollars—has persisted for the better part of a century with insufficient progress toward a solution.

Abandoned coal mines dot the Rocky Mountain and Appalachian landscape. Pollution from abandoned hardrock mines impairs as much as 40 percent of the headwater streams in the region, and abandoned coal mines continue to damage thousands of miles of streams and rivers—over 10,000 miles just within Pennsylvania and West Virginia. While much has been accomplished through the Surface Mining Control and Reclamation Act's (SMCRA) extremely valuable Abandoned Mine Lands Fund (AML Fund) for abandoned coal mine cleanup, no analogue exists for hard rock mines. Coming up with dedicated funding is essential to cleaning up abandoned hard rock mines in the western United States.

We have developed several model projects that can be replicated and taken to scale. In Pennsylvania, aided by state-based Good Samaritan policy, watershed groups, including Trout Unlimited, are working with state agencies, communities, and other partners to conduct more than 250 abandoned coal mine pollution projects throughout the state. We can do a lot more if the problem is fixed in the East, and we can develop similar model projects in the West if the right policies and adequate funding are in place. I will speak to the barriers, and then I will turn to the solutions.

PARTS OF OUR BEST ENVIRONMENTAL LAWS, THE CLEAN WATER ACT AND CERCLA
(SUPERFUND), CAN BE BARRIERS TO ABANDONED COAL MINE CLEANUP

TU and other prospective Good Samaritans are interested in cleaning up smaller, lower risk abandoned mine sites. We are not interested in larger, higher risk, sites where ownership and reclamation responsibility is clear.

Smaller sites generally are not a high enough priority to get funding under the “Superfund” provisions of CERCLA. For these sites, where the parties responsible for the mining pollution are long gone, and with current owners having little to no incentive to do any of the cleanup because of liability risks, projects to reduce pollution can become a legal quagmire. A partnership between TU, western states, and EPA resulted in EPA policy that provides useful protection to Good Samaritans from CERCLA liability in 2007,¹ but CWA liability has remained a significant obstacle.

CERCLA: When TU first started working on abandoned hardrock mines in the West, we had liability concerns under CERCLA and the Clean Water Act that prevented many Good Samaritan projects from moving forward. CERCLA presented a significant barrier to Good Samaritan projects, both because the statute presents real risks for any party helping to clean up toxic wastes, but also because the statute’s complexities and perceived risks are incredibly daunting for many watershed groups, local communities and NGOs. If any liability concerns were raised, even the legal cost of sorting through it would financially strain a non-profit such as TU.

In 2006, TU completed a pioneering Good Samaritan cleanup in Utah’s American Fork Canyon that overcame CERCLA liability concerns with the help of EPA, the Forest Service and the state of Utah. The liability protection document (an Administrative Order on Consent, or “AOC”) negotiated with the EPA for the American Fork work led to the issuance of EPA guidance and model documents for dealing with CERCLA liability protection for future Good Samaritans to use in similar projects.

TU has now negotiated three separate AOCs with the EPA covering two different projects—one project on the American Fork in Utah (two AOC’s for different phases of the project) and another on Kerber Creek in Colorado. These AOCs have allowed TU to undertake cleanup projects with significant local benefits while eliminating the risks of additional cleanup expenses or future liability under CERCLA. We greatly appreciate the work that EPA has put into their model AOC for Good Samaritan cleanups, and the work that EPA staff have put into negotiating the specific AOCs for TU. Though there remains the need for legislation, the AOCs have helped to reduce one of the major impediments that have prevented communities, watershed groups, conservation organizations, TU chapters and others from undertaking abandoned mine cleanup projects.

Clean Water Act: There are many projects where water quality could be improved by collecting run-off, or taking an existing discrete discharge, and running the polluted water through a treatment system. However, for would-be Good Samaritans, Clean Water Act (CWA) compliance and liability issues remain a barrier to such projects. Several courts have held that discharges from systems that treat wastewater from abandoned mines are point source discharges that require a National Pollutant Discharge Elimination System (NPDES) permit under section 402 of the CWA. Although EPA and some eastern states have not considered such projects to be point sources requiring NPDES permits, the Fourth Circuit’s 2010 decision in *West Virginia Highlands Conservancy, Inc. v. Huffman* creates uncertainty around that approach.

Stakeholders in projects involving treatment of mine drainage have been held back because of CWA liability for two reasons. First, NGOs, including TU, are not well suited to apply for and hold permits for such projects. TU does not have an adequate funding mechanism to legally bind itself to pay for the perpetual costs associated with operating a water-treatment facility and permit compliance.

Second, for many projects it may be impossible to obtain a permit, because the treatment systems, even if they will greatly improve conditions, may not be able to treat abandoned mine wastewater to a level that meets all applicable water quality standards or other applicable criteria. It should be noted that while these treatment systems are certainly capable of producing water that will support a healthy fishery, the resulting water quality might not meet CWA standards for some pollutants that are particularly difficult to remove from mine waste. For example, passive wetland systems that effectively treat highly polluted water often leave levels of manganese that do not comply with CWA standards.

This is not to say that CWA standards should be weakened; just the opposite, in fact. But there should be incentives for would-be Good Samaritans to make water

¹ <http://water.epa.gov/action/goodsamaritan/>.

cleaner even if water quality is still short of full CWA standards. Put another way, Federal law should provide incentives for would be Good Samaritans to make our water cleaner and communities safer, one project at a time. The rationale for this is simple—Good Samaritans can deliver outstanding projects with our local, state and Federal partners, which cumulatively can make a huge improvement in a particular watershed.

TU has worked with the EPA to try to address these challenges, and we appreciate the efforts the agency has made to help us and other would-be Good Samaritans. For example, in December of 2012 the EPA issued a guidance memo designed to clarify how the Clean Water Act applies to Good Samaritan abandoned mine cleanup projects. The guidance memo requires potential Good Samaritans to fully comply with the 2007 Superfund Good Sam policy, but allows eligible Good Samaritans to avoid CWA requirements under certain circumstances.

Several years of experience now indicate that the restrictions in the guidance memo may not be a good fit for the type of work, such as passive treatment facilities, that is needed. Indeed, the details of the policies application remain quite unclear, in part because no one has yet opted to use it for a project because, among other questions, the policy leaves open the liability and compliance obligations of owners of land where projects take place. While the EPA's guidance memo is a good start, a legislative solution is necessary.

As we explain in more detail below, TU is working with our partners and allied watershed groups to restore miles of stream in places like Pennsylvania, Colorado, Montana, and Washington right now under the constraints of current law. With Good Sam policy and increased funding in place, the sky is the limit on fighting back against pervasive abandoned mine pollution.

GOOD PROJECTS COULD BE EXPANDED AND REPLICATED WITH EFFECTIVE GOOD
SAMARITAN POLICY FOR COAL

Western Projects

By using the CERCLA liability protection and avoiding projects that trigger Clean Water Act liability, and with the support of the Tiffany & Co. Foundation, Freeport-McMoRan Copper & Gold, Inc., and other partners and supporters, TU has made substantial progress in cleaning up abandoned mine impacts in several watersheds in the West. These projects not only improve the environment, but also put local contractors to work, providing both clean water and jobs.

American Fork, Utah. The Pacific Mine cleanup in the American Fork Canyon was the first voluntary, non-profit-led abandoned hardrock mine restoration project in the West. TU and its partners received awards from the Utah Board of Oil, Gas and Mining and the EPA for work on the American Fork. Anglers can now catch Bonneville cutthroat trout immediately downstream of the area where pollution used to run off mine tailings piles.

Mores Creek, Idaho. To date, over 14,000 cubic yards of mine tailings have been removed from the banks of Mores Creek to create a more natural floodplain area, and trees planted along the stream will provide critically needed shade for coldwater fish. Hundreds of schoolchildren from the area have participated in tree plantings and other restoration work. Migratory fish are now seen using instream habitat structures installed as part of the restoration effort.

Kerber Creek Watershed, Colorado. In total, TU and its partners restored over 80 acres of mine tailings, improved 8 miles of stream, and installed more than 340 instream structures that are now home to a reproducing brook trout population. Volunteers logged over 13,000 hours of work in the watershed over the past 3 years. The restoration project has received four prestigious awards: the BLM's *Hardrock Mineral Environmental Award*, the Colorado Riparian Association's *Excellence in Riparian Area Management Award*, the Rocky Mountain Region of the USFS's *Forest and Grassland Health Partner of the Year*, and the Public Lands Foundation's *Landscape Stewardship Award*.

Leavenworth Creek Watershed, Colorado. In 2015, TU and Federal partners removed and capped 5,400 cubic yards of mill tailings containing high levels of zinc and lead, while constructing 2,500 feet of hardened channel through a dispersed tailings area adjacent to the Waldorf Mine. Removing the mill tailings, creating a vegetated floodplain, and establishing a hardened channel will allow for the conveyance of clean surface water runoff to Leavenworth Creek. This is an important step in improving water quality to downstream South Clear Creek, which acts as the drinking water source for the town of Georgetown, Colorado.

Clark Fork River Basin, Montana. TU and partners have reclaimed four mine sites in the Middle Clark Fork River and have six ongoing mine reclamation projects

in the planning and design phases. For example, on Mattie V Creek, TU and its partners removed 12,000 cubic yards of dredge tailings and reclaimed 500 feet of stream channel reclamation project. Fish are now swimming up Mattie V Creek from Ninemile Creek for the first time in 80 years. Because of these and other accomplishments, the TU project manager in Montana was awarded with the American Fisheries Society's Individual Achievement Award and the U.S. Forest Service's Rise to the Future Award in 2010.

Eastern Projects

In Pennsylvania, abandoned coal mine pollution is being successfully treated and streams and rivers are being brought back to life because the Commonwealth has provided Good Samaritans with dedicated funding. We believe that we can export the Pennsylvania model across the rest of the country if liability concerns are eased and funding is increased.

Kettle Creek, Pennsylvania. Our experiences in Pennsylvania are illustrative of the positive effect of Good Samaritan cleanups. Over the past 20 years, Pennsylvania has seen an increase in abandoned mine reclamation projects by watershed groups, including TU. This boom has been fueled by funding from the state's Growing Greener grant program and the Federal Abandoned Mine Land (AML) reclamation fund. Most of these projects involve treatment of acid mine drainage using passive treatment systems, which run the polluted mine drainage through a series of limestone basins and wetlands that increase the water's pH and cause heavy metals to precipitate out. These projects have significantly improved water quality and restored fish populations in numerous Pennsylvania streams.

The Pennsylvania Department of Environmental Protection estimates that public funding sources have paid for the construction of nearly 250 passive treatment systems in the state, the majority of which have been constructed by private watershed groups, conservation districts or other local groups.

Beginning in 1998, the work of TU and its partners in the lower Kettle Creek watershed has resulted in the reclamation of approximately 160 acres of scarred abandoned mine lands and installation of nine treatment systems that successfully improved mine water polluted with high levels of acidity and metals. The results to date have been tremendous, with water quality restored to 3 miles of previously dead streams and 6 miles of a fully reconnected and thriving native brook trout population.

This story of recovery plays out again and again in individual streams and watersheds. Several years ago, the Babb Creek Watershed Association accomplished delisting 14 miles of Babb Creek, now a wild trout fishery, from EPA's impaired streams list. Another 14 miles in the Tangascootack Creek watershed is pending removal from the impaired streams list as a result of passive treatment systems constructed by the Clinton County Conservation District.

On a much larger scale, the West Branch Susquehanna River watershed has made tremendous strides over the past few decades. A comparison of conditions in the West Branch Susquehanna in 1972 with those in 2009 indicated that fish species increased 3,000 percent, and pH increased from 3.8 to 6.6.

These improvements result in economic benefits. In Pennsylvania, almost \$4 billion was spent on fishing, hunting, and wildlife viewing in 2006. A 2008 study found that full remediation of the West Branch Susquehanna River watershed would result in "an additional \$22.3 million in sport fishing revenues could be expected to be generated each year. Additional recreation spending—over and above that for fishing—would be expected after remediation is completed."¹¹

Regardless of the overall scope of the abandoned mine problem, each of these projects restored a significant water body and represents a big win for the local community.

WHAT WE WOULD LIKE TO SEE IN A GOOD SAM BILL

Good Samaritan projects need an appropriate mechanism that requires the project to produce significant improvements in water quality, implement best-design and management practices, and conduct appropriate monitoring, but that does not expose the Good Samaritan to liability if the project at some point fails to achieve a required criterion for a given pollutant.

Positive Features of a Draft Bill

- Authorizes EPA, in coordination with the appropriate state agencies, to approve 5–10 qualified Good Sam pilot projects.
- The Clean Water Act liability protection mechanism should be narrowly tailored and ensures that water pollution clean-up results in a significant improvement to the environment.
- The bill should supply adequate public notice and comment for each project.
- The bill should clarify that private landowners who are not responsible for abandoned mine cleanup on their lands, but who are willing to work cooperatively with the Good Sams and the state to clean up pollution from abandoned mines on their land, should also receive liability protection from the bill over the life of the project.
- Projects must meet applicable water quality standards to the maximum extent practicable “under the circumstances.” We will need to make sure that implementing agencies understand that “under the circumstances” will mean performing cleanup activities that are cost-effective at high elevations and in remote locales.
- Projects are eligible for Clean Water Act Section 319 funding. Abandoned mine cleanup activities sometimes fall into a gray area of the law between non-point and point source control. Greater application of 319 funds to this work will be very helpful.
- The bill should provide protection from future liability from the Clean Water Act and CERCLA once Good Samaritans have successfully completed their permitted work activities. This provision is much appreciated and is in fact, essential for any Good Samaritan projects.

MORE FUNDING IS NEEDED

Cleanup of abandoned coal mine pollution is a long-term job, and long-term funding is needed to get the job done.

We urge Congress to consider establishing a fair royalty from any minerals taken from public lands, a portion of which could be invested in an abandoned hardrock mine cleanup fund. Almost every commodity developed on our public lands—coal, wood fiber, oil, gas, and livestock forage—has dedicated funding for mitigation of impacts and restoration. The only commodity that lacks such a dedicated fund is hardrock minerals.

CONCLUSION

Improving water quality around the Nation is a fundamental goal of the work of this Subcommittee, and thus we are pleased that the Subcommittee is looking at one of the most vexing water problems remaining in coal country. We stand ready to work with you so that affected communities around the Nation will again have clean, fishable waters. Thank you for considering our views, and thank you for working with us on these important matters.

Dr. GOSAR. I thank the gentleman.
I now recognize Mr. Strohmaier for his 5 minutes.

STATEMENT OF HON. DAVID STROHMAIER, COUNTY COMMISSIONER, MISSOULA COUNTY, MONTANA

Mr. STROHMAIER. Chairman Gosar, Ranking Member Lowenthal, and members of the Subcommittee, thank you for the opportunity to testify today on the problems and potential solutions to cleaning up abandoned hardrock mines.

My name is David Strohmaier and I am a county commissioner from Missoula County, Montana. Speaking as a fellow elected official, I want to thank all of you for your service, which I am sure you do not hear often enough.

With the Chair’s permission, Austin has agreed to project a graphic that goes along with the presentation.

[Slide.]

Missoula County is home to blue ribbon trout streams such as the Blackfoot, Bitterroot, Clearwater, and Clark Fork. Outdoor recreation is intrinsic to our way of life. It is also crucial to our economy. In fact, recreation is now the largest sector of Montana's economy.

When entrepreneurs come before our Commission seeking economic development assistance, I frequently ask them why they want to invest in Missoula County, and almost without exception, the first response they give is quality of life, which has everything to do with water.

Clean, cold water not only supports our recreation economy and attracts business, our waters have sustained indigenous peoples from time immemorial and are at the core of modern treaty rights. Moreover, since the settlement era, our rivers and streams have watered crops and livestock on farms and ranches in western Montana.

Montana also has a long and rich history of mining, yet thousands of abandoned hardrock mines in our state have left behind a legacy of water pollution, harming fish, wildlife, and their habitat, contaminating drinking water and degrading our iconic trout streams. I agree that Good Samaritan initiatives will provide important opportunities for abandoned mine cleanup by NGOs, but we must not lose sight of the sheer scale of the problem faced by western communities due to abandoned mine pollution. Missoula County alone contains 186 abandoned and inactive mines.

The Surface Mining Control and Reclamation Act, or otherwise known as SMCRA, for nearly two generations has required the coal industry to pay a fee for abandoned mine reclamation. An independent, dedicated funding source for hardrock abandoned mine cleanup similar to the SMCRA program is long overdue.

Missoula County in partnership with Trout Unlimited and the Lolo National Forest have secured over \$3 million to clean up abandoned placer mining and associated dredging. Nine Mile Creek located 20 miles west of Missoula is one of the most important native trout tributaries of the Middle Clark Fork and one of the most affected by mining impacts. Many of the tributaries of Nine Mile Creek nearly empty into dredge ponds rather than the creek itself.

Today, we have completed several mine reclamation projects in Nine Mile watershed yielding reduced sediment loading and enhanced fish passage. Bull trout now freely move between Nine Mile Creek and tributaries for the first time in 70 years.

But there is more work to do. Another \$4.5 to \$5 million are needed to fully restore Nine Mile Creek and adjoining tributaries.

In conclusion, Good Samaritan liability waivers, charitable giving, and charitable cleanup are only a small part of the abandoned mine solution. We, in Missoula County, Montana, hope that policy makers will find a path forward for Good Samaritans to help clean up some abandoned mines across the West. However, creating a dedicated, meaningful funding stream is essential to fully address the problem. Short of this, state, local, and tribal governments and citizen groups can only help clean up a small number of projects and our Nation's waters, public health, and economy will suffer.

As Norman Maclean said in his novella, *A River Runs Through It*, Missoula lies “at the junction of great trout rivers in western Montana.” For future generations of Montanans and visitors alike, we need to ensure that it remains that way, that water continues to run clean, and where it is degraded, we take steps to solve the problem. To do less is to squander the birthright of future generations in our state and across the Nation.

Thank you again for the opportunity to testify, and I would be happy to answer any questions.

[The prepared statement of Mr. Strohmaier follows:]

PREPARED STATEMENT OF DAVID STROHMAIER, COUNTY COMMISSIONER,
MISSOULA COUNTY, MONTANA

Chairman Gosar, Ranking Member Lowenthal, and members of the Subcommittee, thank you for the opportunity to testify before you today on the problems and solutions to cleaning up abandoned hardrock mines. My name is David Strohmaier and I am a county commissioner from Missoula County, Montana.

Outdoor recreation is intrinsic to our way of life, but it is also crucial to our economy. In fact, recreation is now the largest sector of Montana’s economy, garnering over \$7 billion in annual consumer spending.¹ People come to Montana and Missoula County for our world class trout streams, abundant public lands, and quality of life. In Montana, counties are charged with the responsibility of reviewing applications for Big Sky Trust Fund job creation grants. When entrepreneurs come before us, I frequently ask them why they want to invest in Missoula or Missoula County. Almost without exception, the first response they give is quality of life. According to Jeff Fee, interim director of the Missoula Economic Partnership, “Missoula’s natural scenery and opportunities for outdoor recreation contribute to our growing economy and enhance our ability to attract new businesses and skilled workers to our region. A clean, safe environment is inextricably linked to quality of life for Missoulians who choose to start new businesses and raise their families here.”²

Clean, cold water not only supports our recreation economy and attracts business, it has also sustained generation upon generation of indigenous peoples in the northern Rockies and is at the core of the Confederated Salish and Kootenai Tribes’ treaty rights. Moreover, since the settlement era, our rivers and streams have watered crops and livestock on farms and ranches in western Montana.

Montana also has a long and rich history of mining. While mining in Montana helped build the state and the Nation, it also left behind a legacy of thousands of abandoned mines. These abandoned mines are a significant source of water pollution, harming fish and wildlife and their habitat, contaminating drinking water aquifers, degrading the trout streams that Montana is renowned for, and jeopardizing our agricultural heritage. Abandoned placer and dredge mines can also have significant adverse effects, including dewatering, obstructing fish passage, and excessive sedimentation.

THE PROBLEM OF ABANDONED MINE LANDS (AML)

My main concern with abandoned hardrock mines is their potential to generate long-term water pollution, including the release of harmful metals and acid mine drainage (AMD). AMD can lower the pH of surrounding surface water, making it acidic and unable to support many forms of aquatic life. The Environmental Protection Agency (EPA) estimates that mining activity has contaminated the headwaters of more than 40 percent of watersheds in the West.³ The Government Accountability Office (GAO) estimates that 33,000 abandoned mine sites have

¹Outdoor Industry Association, “Montana Outdoor Recreation Economic Report,” July 26, 2017. Available at: <https://outdoorindustry.org/resource/montana-outdoor-recreation-economy-report/>.

²Jeff Fee, Interim Director, Missoula Economic Partnership, personal communication, March 12, 2018.

³U.S. Environmental Protection Agency, “Liquid Assets 2000: Americans Pay for Dirty Water,” Available at: <http://water.epa.gov/lawsregs/lawsguidance/cwa/economics/liquidassets/dirtywater.cfm>.

degraded the environment by contaminating waters or leaving “arsenic-contaminated” waste piles.⁴

To solve the problem of perpetual pollution from inactive and abandoned hardrock mines, we must reform the 1872 Mining Law and institute a source of revenue similar to the one paid by the coal industry for cleaning up abandoned coal mines. Unlike the coal industry, the hardrock mining industry pays no royalties for the minerals that are extracted from Federal public lands. I agree that Good Samaritan initiatives will provide important opportunities for abandoned mine clean-up by NGOs, but we must not lose sight of the sheer scale of the problem faced by western communities and water resources due to abandoned mine pollution.

The Surface Mining Control and Reclamation Act (SMCRA) has for nearly two generations required the coal industry to pay a fee for abandoned mine reclamation.⁵ This fee has successfully funded coal mine cleanups across the country. In fact, in some states like Montana, the coal industry’s funds have been used to clean up the messes of their hardrock brethren. This important funding source, however, is set to expire in 2021.

AML IN MONTANA

Montana’s Department of Environmental Quality (DEQ) estimates that our state has approximately 3,700 hardrock abandoned mines.⁶ Missoula County alone, which covers approximately 2,600 square miles, contains an estimated 186 abandoned and inactive mines, and others are located in the county’s watershed that encompasses adjoining counties.⁷ All together, these mines impair roughly 2,000 miles of Montana’s rivers and streams—often from acid mine drainage, metals, or other pollutants.⁸

Ninemile Watershed

Missoula County is involved in a collaborative effort with the Lolo National Forest and Trout Unlimited to clean up placer mining and large-scale dredging operations causing significant damage to tributaries of the middle Clark Fork River watershed. Ninemile Creek, located 20 miles west of Missoula, is one of the most important native trout tributaries in the middle Clark Fork River watershed and one of the most affected by mining impacts. Many of the streams that used to feed Ninemile Creek no longer reach it, emptying instead into mine dredge ponds that line the floodplain.⁹

Several mine reclamation projects on tributaries in Ninemile Creek have been successfully completed since an environmental analysis was conducted in 2012 by the U.S. Forest Service. Working in collaboration, the Lolo National Forest, Trout Unlimited, Missoula County, and others have brought in over \$3,000,000 to the local community (with \$900,000 garnered in 2018 and 2019 alone), restoring almost 3 miles of the main stem of Ninemile Creek, and connecting eight major tributaries.¹⁰ Due to the completed and ongoing work, sediment loads have been reduced, fish can now move to colder waters or to spawning grounds, and fish populations are increasing. Bull trout now freely move between Ninemile Creek and other tributaries for the first time in 70 years. The collaborative cleanup project illustrates that, with a proper funding source, we can make progress.¹¹

There’s more work to do, though. Another 3 miles of placer mine damaged streams must be remediated to complete the mainstem of Ninemile Creek, at an estimated cost of \$3,500,000, and another \$1 million is needed for two significantly

⁴U.S. Government Accountability Office, “Abandoned Mines: Information on the Number of Hardrock Mines; Cost of Cleanup and Value of Financial Assurances,” July 14, 2011, <https://www.gao.gov/products/GAO-11-834T>.

⁵See 30 U.S.C. 25 Subchapter IV §1231 et seq.

⁶Bozeman Daily Chronicle, “Scars of the past: Cleaning up abandoned mines and the fight of the funding to do it,” December 10, 2017. Available at: https://www.bozemandailychronicle.com/news/environment/scars-of-the-past-cleaning-up-abandoned-mines-and-the/article_6d014843-4d63-512b-bbbd-ffb454fe07d.html.

⁷Montana Bureau of Mines and Geology, abandoned and inactive mine database, available at: <http://data.mbgm.mtech.edu/3D/DataViewer.asp?Database=2&focus=Menu&getby=CNT&>.

⁸Montana Department of Environmental Quality, Montana Final 2016 Water Quality Integrated Report, Appendix A, January 6, 2017, Available at: <http://deq.mt.gov/Portals/112/Water/wqpb/CWAIC/Reports/IRs/2016/App A.pdf>.

⁹Missoula County Community and Planning Services—Parks, Trails and Open Lands Program.

¹⁰Ninemile Ranger District Staff, Lolo National Forest, personal communication, March 12, 2018.

¹¹Missoula County Community and Planning Services—Parks, Trails and Open Lands Program.

damaged tributary streams. All total, another \$4.5 to 5 million are needed to complete Abandoned Mine Land (AML) work in the Ninemile.¹²

Flint and Fred Burr Creeks

Another example is Flint Creek, a major tributary to the Clark Fork River of western Montana and part of the greater Clark Fork watershed upstream from Missoula County. From its headwaters at Georgetown Lake, Flint Creek travels through some of the region's most prized agricultural lands before joining the Clark near Drummond, Montana.¹³

The Flint Creek Watershed was actively mined throughout the 19th and early 20th centuries, and the Montana Bureau of Mines and Geology has catalogued 411 abandoned mining sites in the area.¹⁴ One of these sites, the Rumsey Mill, located on Fred Burr Creek, a tributary to Flint Creek near Phillipsburg, Montana, is an exceptionally significant problem, even for a region riddled with so many legacy mining issues. The mill became operational in 1889 and used mercury to recover gold and silver from ore until 1893, leaving a dispersed deposit of mercury-laden tailings along the creek downstream of the mill.¹⁵ Today, concentrations of mercury in surface water and sediments routinely exceed aquatic life and human health standards, and Fred Burr Creek is the source of an estimated 80 percent of the mercury to Flint Creek, which is in turn the largest source of mercury to the Clark Fork River. The mercury has clearly made its way into the regions' wildlife, with elevated concentrations having been detected in macroinvertebrates and fish, as well as in osprey, a fish-eater raptor common to the region.¹⁶ Montana officials have had to issue fish consumption advisories on Fred Burr Creek, Flint Creek, and the Clark Fork River due to the mercury released by the Rumsey Mill.¹⁷

Fortunately, a grassroots effort is underway to address the problem. The Granite Headwaters Watershed Group, based in Phillipsburg, has secured funding to determine the extent of the contaminated tailings and develop a preliminary remediation design. However, complete removal of the tailings and restoration of the creek and mine site are well beyond the financial means of the group. The initial estimate for cleanup was \$1 million, with the group securing approximately half of that from state sources. As the group has learned more about the extent of contamination, project costs have grown to several times the initial estimate and will likely rise even further.¹⁸ State and Federal AML hardrock funds could provide critical support to the long-term success of this project, helping to protect human health and the environment in Fred Burr and Flint Creeks and beyond.

Many of the abandoned mine cleanup projects are complex and costly, with multiple government agencies involved in trying to cobble funding together for a single cleanup effort that often spans multiple years. An independent, dedicated funding source for hardrock abandoned mine cleanup, similar to the SMCRA program, is long overdue. This is the only type of reclamation program that can truly solve our Nation's abandoned and inactive mine problem. Since 1980, Montana's AML program has reclaimed 408 coal mines and 38 hardrock mines in 17 counties.¹⁹

BENEFITS OF AML CLEANUP

Abandoned mine cleanup offers substantial economic benefits as well. Although it's been more than a decade since economic data has been collected for Montana AML projects, but earlier reports demonstrate their significant economic value. The Federal Office of Surface Mining Reclamation and Enforcement (OSMRE) calculated the economic benefits of various construction-ready projects in its annual evaluation reports of Montana's AML program. According to a 2005 report, if \$22.49 million in funding were available to complete the 20 construction-ready projects identified

¹² Paul Parson, P.E., Trout Unlimited, personal communication via e-mail, March 12, 2018.

¹³ John DeArment, Staff Scientist, Clark Fork Coalition, personal communication via e-mail, March 12, 2018.

¹⁴ Seagull Environmental Services, "Data Assessment Report Regarding Historical Analytical Data for the Flint Creek Watershed in Granite County, Montana," 2014.

¹⁵ Granite Conservation District, "Flint Creek Watershed Metals Remediation—Proposal for Fred Burr Creek Rumsey Mill Tailings," submitted to the Montana Department of Natural Resource Conservation, 2016.

¹⁶ Kindra McQuillan, *Disturbed Waters—A Montana Chemist Searches for the Source of a Persistent Poison*, 2014, Graduate Student Theses, Dissertations, and Professional Papers, 4365, available at: <https://scholarworks.umt.edu/etd/4365>.

¹⁷ State of Montana, Montana Sport Fish Consumption Guidelines, January 5, 2015, version.

¹⁸ Autumn Coleman, Abandoned Mine Program Supervisor, Montana Department of Environmental Quality, Personal Communication with John DeArment, March 2018.

¹⁹ Montana DEQ, Abandoned Mines website, available at: <http://deq.mt.gov/Land/AbandonedMines/accomplishments>.

that year, that investment would generate \$53.38 million in economic benefits and support 1,831 jobs.²⁰

In the case of Missoula County's Ninemile watershed mine reclamation projects, an average of 95 percent of project funds—estimated at over \$3 million—have been spent in the private sector on contracted services, and contracts have been awarded largely to local or regional contractors.²¹ This figure does not include other local industries that benefit from the projects, such as hotels, restaurants, gas stations, or other services used by the contractors.

Montana's abandoned mine lands program is an effective program with demonstrated on-the-ground successes. Yet, the limited funding available to the state allows the program to remediate only a few sites each year, and usually in phases.

The indirect economic benefits come from public use of the restored resource for a variety of purposes. Recreationally, people can use the clean water for fishing, swimming, rafting, and, in some cases, even drinking. Restored areas can also be utilized for livestock grazing, camping, and other activities that were previously restricted because of risk from either air contaminants, direct contact with materials or adversely impacted ground and surface water. Recreational dollars go into the local economy. A recent study found that outdoor recreation contributed \$373.7 billion to the Nation's Gross Domestic Product in 2016, comprising 2 percent of gross domestic product (GDP).²² And, again, a clean and healthy environment is one of the primary attractors to entrepreneurial activity and investment in our region.

SUCCESS OF THE COAL AML PROGRAM

A robust AML program with a significant, dedicated funding source can act as an economic driver. Across the country, SMCRA's AML program has reclaimed over \$5.7 billion worth of mine pollution and nearly 800,000 acres of damaged land and water.²³ The program delivered a total impact of \$778 million to the U.S. economy in FY2013, and supported 4,761 jobs across the country.²⁴ The Congressional Budget Office (CBO) estimates that every \$1 million invested in mine cleanup creates 14 to 33 new jobs.²⁵

CONCLUSION

Good Samaritan liability waivers, charitable giving, and charitable cleanup are only a small part of the AML solution. We, in Missoula County, hope that policy makers will find a path forward for Good Samaritans to help clean up *some* abandoned mines across the West. However, creating a dedicated, significant stream of funding is essential to fully address the pollution problem from half a million abandoned hardrock mines. Given this crushing need, without this funding source, state, local and tribal governments, and citizen groups, can only help clean up a small number of projects, and our Nation's waters, public health, and economy will suffer. As Norman Maclean said in his novella, *A River Runs Through It*, Missoula lies "at the junction of great trout rivers in western Montana." For future generations of Montanans and visitors alike, we need to ensure that it remains that way—that water continues to run clean, and where it is degraded, we take steps to improve water quality and stream flow.²⁶ To do less is to squander the birthright of future generations in our state and across the Nation.

Dr. GOSAR. Thank you, Mr. Strohmaier.
I now recognize Mr. Graves for his 5 minutes.

²⁰ Office of Surface Mining and Reclamation and Enforcement, "Annual Evaluation Summary Report for the Abandoned Mine Lands Program Montana," 2005.

²¹ Missoula County Community and Planning Services—Parks, Trails and Open Lands Program.

²² U.S. Bureau of Economic Analysis, Economic data by industry, Available at: <https://www.bea.gov/iTable/iTable.cfm?ReqID=51&step=1#reqid=51&step=51&isuri=1&5114=a&5102=5>.

²³ Appalachian Law Center, "Abandoned Mine Program: A Policy Analysis for Central Appalachia and the Nation," July 8, 2015. Available at: <https://appalachianlawcenter.org/abandoned-mine-land-policy/>.

²⁴ Id.

²⁵ <https://www.gpo.gov/fdsys/pkg/CHRG-110shrg43266/html/CHRG-110shrg43266.htm>.

²⁶ Norman Maclean, *A River Runs Through It* (Chicago and London: The University of Chicago Press, 1976), 1.

STATEMENT OF JEFF GRAVES, DIRECTOR, INACTIVE MINE RECLAMATION PROGRAM, COLORADO DEPARTMENT OF NATURAL RESOURCES, DENVER, COLORADO

Mr. GRAVES. Good afternoon, Mr. Chairman, Ranking Member, members of the Committee. My name is Jeff Graves and I am the director of the Inactive Mine Reclamation Program within the Colorado Department of Natural Resources.

I am appearing on behalf of the state of Colorado to provide testimony on the need for Good Samaritan provisions to facilitate cleanup of abandoned hardrock mines. I appreciate the opportunity to appear today and share our views on this issue that impacts Colorado and many other hardrock states so directly.

By many counts, Colorado has more than 23,000 abandoned or legacy mine sites across the state. Regardless of the actual number, the sheer magnitude of the problem drives the need for partnerships and innovative solutions, and most importantly, the potential liability relief provided by Good Samaritan legislation.

One of the largest and thorniest problems associated with legacy mines is the effects of acid mine drainage from many of our hardrock sites. Over 1,300 miles of Colorado streams are impacted by metals connected to acid mine drainage from historic mining activity. Recently, the state sampled and characterized over 170 draining mines and is currently working with our Federal and NGO partners to evaluate those sites for potential cleanup.

The challenge and frustration is that the discharge from few, if any, of those sites will be addressed absent liability protection. One example of how environmental liabilities have stalled and even prevented cleanup of abandoned hardrock mines is the Pennsylvania Mine located in Summit County. That mine is the single largest man-made source of metals to Peru Creek, a tributary to the Snake River. The mine was operated at the turn of the last century, producing silver, gold, and base metals.

There is currently no viable responsible party that can be held accountable for cleanup of the site. Recognizing that, the state began investigating ways to address contaminated discharge from the site, since it was obvious that both Peru Creek and portions of the Snake River were so contaminated by metals that the streams were devoid of any aquatic life.

At the time, many states considered discharge from mine sites to be non-point sources of pollution under the Clean Water Act, and a specific discharge permit was therefore not needed to facilitate work to improve the quality of discharged water. Additionally, states and NGOs assumed that since they did not create the problem and were merely acting to improve conditions, they would not be held responsible into the future for not meeting existing standards.

With that paradigm in mind, the state designed a passive water treatment facility at the Penn Mine to provide partial treatment of the discharge during critical times of loading to the creek. The state worked with volunteers for Alter Colorado, a local NGO, to assist with construction of the treatment facility, following construction of the facility.

Following construction of the facility, but prior to its operation, EPA clarified that all discharges from mines would be considered

point sources under the Clean Water Act, thus requiring a specific discharge permit. At that point, all activities at the sites ceased for fear of the liability associated with operating a plant not intended to meet stringent discharge standards year round.

That treatment plant sat idle for more than 20 years without treating any discharge from the mine. During that time, a local stakeholders group was formed, consisting of downstream users, NGOs, Federal, state, and local governments, to explore alternative legal work-arounds that might facilitate operation of the treatment system, but every avenue was stymied by the potential for long-term liability.

The stakeholder group was able to facilitate cleanup of non-point source issues within the watershed where long-term liability and risk could be minimized and marginal improvements to water quality could be realized, but all members recognized that without addressing the point sources, larger improvement goals could not be met. Eventually, the stakeholder group convinced EPA to exercise its CERCLA authority under Removal Action to facilitate cleanup of the site, but that avenue was not an option at most sites in Colorado.

The common thread hampering cleanup at most hardrock mines is the risk associated with incurring long-term liability as a result of the Clean Water Act and CERCLA. In some cases, funding is available to complete projects that could result in a net improvement to downstream water quality, but liability concerns prevent additional work from taking place or even from operating treatment systems already constructed. In many instances, there are willing partners, either state agencies, NGOs, or private entities that, if afforded Good Samaritan protections, could accomplish water quality improvements at many abandoned hardrock sites.

The universe of abandoned mine lands is so large and the existing governmental resources are so limited that it will be impossible to clean up all these sites without the assistance of Good Samaritan volunteers along with liability protection. Moving forward, any viable Good Samaritan measures must move us away from the current environment of "you touch it, you own all of it," and toward the phrase borrowed from a different profession of "at least do no harm."

Thank you for the opportunity to address the Committee on the potential for Good Samaritan protections to facilitate hardrock clean ups.

[The prepared statement of Mr. Graves follows:]

PREPARED STATEMENT OF JEFF T. GRAVES, DIRECTOR, INACTIVE MINE RECLAMATION PROGRAM, ON BEHALF OF COLORADO DEPARTMENT OF NATURAL RESOURCES, DIVISION OF RECLAMATION MINING AND SAFETY

Good afternoon. My name is Jeff Graves and I am the Director of the Inactive Mine Reclamation Program within the Colorado Department of Natural Resources. I am a geological engineer by training and have been responsible for the design and implementation of abandoned mine reclamation projects throughout Colorado for the last 17 years. I am appearing on behalf of the state of Colorado to provide testimony on the need for Good Sam provisions to facilitate cleanup of abandoned hardrock mines. I appreciate the opportunity to appear today and share our views on this issue that impacts Colorado and many other hardrock states so directly.

Colorado has enjoyed a rich mining heritage beginning with the discovery of placer gold along Cherry Creek south of Denver in 1858. What followed over the

next 50 years was a rush to develop the vast mineral resources throughout the state. During that time little forethought was given to the consequences associated with unregulated extraction, leaving us with a unique legacy of environmental challenges.

By many counts, Colorado has more than 23,000 abandoned or legacy mine sites across the state. That number is likely a conservative estimate because many of these legacy sites are located in inaccessibly rugged terrain or shrouded in heavily timbered areas of the backcountry. Regardless of the actual number, the sheer magnitude of the problem drives the need for partnerships and innovative solutions, and most importantly the potential liability relief provided by Good Samaritan legislation.

The problems associated with so many abandoned mines vary considerably. Some sites pose direct physical safety hazards, as unprotected shafts, adits and other mine features put the unsuspecting public at risk. Other sites can result in personal injury or property damage from subsidence of unseen underground mines. Over 30 underground coal mine fires across our state create a heightened risk of wildfire ignition.

Colorado has been actively addressing these legacy mine issues over the last 40 years through its Inactive or Abandoned Mine Reclamation Program in partnership with other state and Federal agencies, non-governmental organizations, and private entities. To date, the program has been responsible for safeguarding over 10,400 hazardous features, reclaiming over 4,000 acres of mining-disturbed lands, improving water quality at more than 220 sites, and investigating and managing 33 underground coal mine fires. The Program was recently recognized by the Association of Environmental and Engineering Geologists as Outstanding for its work to address legacy mine issues in Colorado, but much work remains to be done.

One of the largest and thorniest problems associated with legacy mines is the effects of acid mine drainage from many of our hardrock sites. Over 1,300 miles of Colorado streams are impacted by metals connected to acid mine drainage from historic mining activity, resulting from varying causes. Often, direct snowmelt and rainfall on mine waste piles and tailings leach metals from exposed waste and are then transported to adjacent streams and rivers. At other sites, horizontal mine entries or adits directly discharge acidic, metal laden water directly to surface water creating immediate downstream impacts.

In 2015, Colorado Governor John Hickenlooper championed an effort to identify and collect information on draining mine sites across the state, recognizing that draining mines and the impacts from them were a serious concern. Approximately 230 sites were identified as discharging and potentially resulting in stream water impacts. Of those 230 sites, some were already being addressed by the EPA Superfund program, but many sites had little to no data available to assist in understanding the scope of the problem. During 2016, over 170 of those sites were visited and characterized. The state is currently working with our Federal and NGO partners to prioritize those sites for cleanup, based on site specific discharge criteria, and threats to the environment and downstream users. The challenge and frustration is that acid discharges into surface waters from few, if any, of those sites will be addressed absent liability protection.

Environmental laws of the 1970s, including the Clean Water Act and the Comprehensive Environmental Response and Cost Recovery Act, or CERCLA, were designed to help clean up our Nation's waterways and reduce environmental problems. Provisions in those laws, however, have had the unintended consequence of preventing many states, NGOs and private entities from conducting reclamation work at mine sites for fear of incurring long-term responsibility and liability. Any Good Samaritan, including states, that attempts to improve water quality at mine sites through reclamation activities like capping and burying mine waste or passively treating mine discharge can be held liable for any remaining discharge that doesn't meet stringent water quality standards. Additionally, the Good Samaritan could be considered an "operator" under CERCLA and held responsible for any future off-site damages that result from work performed.

In an effort to illustrate how the aforementioned concerns have hampered, stalled or even resulted in cleanup abandonment, I would like to provide three specific examples in Colorado. Those examples are the Pennsylvania Mine, the Solomon Mine and the Perigo Mine.

The Pennsylvania Mine, located in Summit County within the Snake River watershed, is the single largest man-made source of metals to Peru Creek, a tributary to the Snake River. The mine was operated from the late 1800s through the early 1900s and produced silver, gold and base metals. There is no viable Potentially Responsible Party that can be held responsible for cleanup of the site, since the operator long since passed away. In the 1980s, the state began investigating ways to

address contaminated discharge from the site since it was apparent that both Peru Creek and portions of the Snake River were so contaminated by metals that the streams were devoid of any aquatic life.

At the time, many states considered discharge from mines sites to be non-point sources of pollution under the Clean Water Act, and a specific discharge permit was therefore not needed to facilitate work to improve the quality of the discharged water. Additionally, states and NGOs assumed that since they did not create the problem and were merely acting to improve conditions, they would not be held responsible into the future for not meeting existing standards. With that paradigm in mind, in 1993 the state designed a passive water treatment plant at the Pennsylvania Mine to provide partial treatment of the discharge during critical times of loading to the creek. The state worked with Volunteers for Outdoor Colorado, a local NGO, to assist with construction of the treatment facility. Following construction of the facility, but prior to its operation, the state of Colorado received a letter from EPA clarifying that all discharges from mines, including seeps, would be considered point sources under the Clean Water Act, thus requiring a specific National Pollutant Discharge Elimination System (NPDES) permit. Upon receipt of that letter, all activities at the site ceased for fear of the liability associated with operating a plant not intended to meet discharge standards year round.

That treatment plant sat idle for more than 20 years without treating any discharge from the mine, and all the while discharge from the Pennsylvania Mine continued to contaminate Peru Creek and the Snake River. During those 20 years, a local stakeholders group was formed to explore alternative options or legal work-arounds that might facilitate operation of the treatment system, but every avenue was stymied by the potential for long-term liability. The stakeholder group was able to facilitate cleanup of non-point sources within the watershed where long-term liability and risk could be minimized and marginal improvements to water quality could be attained, but all members recognized that without addressing the point sources, larger improvement goals could not be met.

Eventually, the stakeholder group convinced EPA to exercise its CERCLA authority under a removal action to facilitate installation of bulkhead seals to reduce discharge from the Pennsylvania Mine, but that avenue is not an option at most sites in Colorado. Even after bulkhead installation at the Pennsylvania Mine, some discharge remains that could likely be addressed using passive treatment technology if liability was not a concern.

Another site, the Perigo Mine in Gilpin County within the Boulder Creek watershed, has historically discharged metal-laden water into Gamble Gulch and has seen periodic surge events resulting in the creek running orange. Much like the Pennsylvania Mine, the state recognized the need to reduce metal loading from the Perigo Mine to help improve downstream water quality. An attempt was made during the 1980s to install a long-term passive treatment system that would reduce metal concentrations in runoff, but would not be capable of meeting discharge standards. At the time, it seemed like a viable alternative to the installation of a full-scale active treatment plant costing millions of dollars to construct and potentially operating forever.

The passive treatment system at the Perigo Mine was marginally successful in reducing metal loading, but it was abandoned in part due to the potential long-term liability and cost associated with maintaining the system. More recently, the state received funding to conduct additional investigations at the site to explore other alternatives such as construction of a hydraulic seal bulkhead. The state partnered with EPA and the United States Forest Service to conduct a detailed site investigation, and determined that installation of a bulkhead to reduce surge events was feasible, but the potential for incurring liability associated with construction was too great a risk. At the time, EPA was reluctant to initiate action under its CERCLA removal authority. The money dedicated to installation of the bulkhead was subsequently returned, and now the site sits unattended, continuing to discharge metals into Gamble Gulch.

The final site is the Solomon Mine located in Mineral County within the Rio Grande watershed. The Solomon Mine is just like the Pennsylvania and Perigo mines in that mining was conducted during the turn of the last century, and no responsible party exists. In 1991, the state, in cooperation with the local watershed group, the Willow Creek Reclamation Committee, completed a non-point source project that cleaned up mine waste in East Willow Creek and constructed a passive treatment system for the Solomon Mine discharge. The passive treatment system operated successfully for a period of time, but was not maintained due in part to concerns regarding long-term liability.

The common thread to all these examples is the risk associated with incurring long-term liability as a result of the Clean Water Act or CERCLA. In each instance,

funding was available to complete projects that would have resulted in a net improvement to downstream water quality, but liability concerns prevented additional work from taking place or even from operating treatment systems already constructed. These projects highlight the adage, “perfect is the enemy of the good.” There were willing partners, either state agencies, NGOs or private entities that, if afforded Good Samaritan protections, could have accomplished water quality improvements at each site.

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 to water quality also have economic impacts that are felt nationwide. In addition, the universe of abandoned mine lands is so large and the existing governmental resources are so limited, that it will be impossible to clean up all of these sites without the assistance of Good Samaritan volunteers.

Colorado believes the pursuit of Good Samaritan protections will be immensely helpful in our efforts to remediate the vast quantities of abandoned mine sites in our state. We have seen the results from this type of approach in other states such as Pennsylvania, which enacted its own Good Samaritan law to provide protections and immunities related to state clean water requirements. Even Pennsylvania Good Samaritans, however, are still exposed to potential liability under the Federal Clean Water Act for their good deeds, which imposes a chilling effect on watershed clean-up efforts.

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

Dr. GOSAR. I thank the panel for their testimony, reminding the members of the Committee that Committee Rule 3(d) imposes a 5-minute limit on the questions.

I will now recognize myself for questions.

I understand that treating acid mine drainage is one of the most challenging aspects of abandoned mine land reclamation. States face not only technical challenges in completing these projects, but also compliance challenges under the law.

Mr. Woods, Mr. Graves, Ms. Coleman—first, with Mr. Woods. In your experience with water treatment projects, why can’t some of the sites meet clean water standards even though some of the best water treatment systems are in place?

Mr. WOOD. Why can’t they meet clean water standards?

Dr. GOSAR. Yes.

Mr. WOOD. Well, we know how to treat these systems both actively and passively, and I referred to this in my testimony. Often you can accomplish a great deal with a relatively small amount of resources by doing things like passive treatments where you would run abandoned mine waste, acid mine drainage, rather, through lime ponds and that is a relatively low-cost venture. But to get that extra increment to get you to 100 percent might be technically beyond our capacity or just vastly more expensive.

Dr. GOSAR. Ms. Coleman?

Ms. COLEMAN. Thank you, Chairman. In Montana, we are actually exploring building a water treatment plant in Belt, Montana for abandoned coal mines. And what we found for low-cost passive systems that had been built in the past is that we will make substantial improvement in water quality, but due to practical limitations and financial limitations, we were not able to afford the level of treatment that we would need to meet the Clean Water Act standards. So, in order to meet those, you have to build a substantial water treatment plant, a multi-million dollar water treatment

plant, and then find money to afford to run that plant in perpetuity, and that is where the real limitations come in.

Dr. GOSAR. Would you agree with that, Mr. Graves?

Mr. GRAVES. Yes, I would. That is a similar experience to what we have had in our state, where it is possible to build low-cost passive treatment systems that address some portion of the discharge at the site, but the ability to construct a full-scale active water treatment plant to address that remaining component becomes cost-prohibitive at most sites.

Dr. GOSAR. I am going to start with you this time. If clean water standards are not feasible for the Good Samaritan projects, how would we go about establishing a better standard that is achievable nationwide?

Mr. GRAVES. I think beginning with, kind of like I echoed in my testimony, at least not doing harm but establishing incremental improvements. And how that looks, I am not exactly sure in terms of what standards you do set but recognizing that the improvement on site is what we are after and not necessarily one particular standard but in overall improvement to downstream water quality.

Dr. GOSAR. Mr. Woods?

Mr. WOOD. I agree with that. I think the standard ought to be trying to make things better. Early on, we negotiated an agreement with EPA under the Bush administration, and at one point during the negotiation one of the EPA attorneys said to us, "This is the best deal we have ever given a PRP." And our response was, "But we're not a PRP, we are not a potentially responsible party. We are just a Good Samaritan who wants to do the right thing." We shouldn't be held to the same standard that people who actually caused the pollution are.

Dr. GOSAR. Do you have any idea how we could actually build legislation for that flexibility, Mr. Wood?

Mr. WOOD. There have been good efforts in the past. I think Congressman Tipton was involved in those last Congress, and others have been as well. I don't think we are that far from having that language right now.

Dr. GOSAR. Perfect. Mr. Wood, do sites need to meet clean water standards in order to support wildlife, habitats, and healthy overall environment? Is there some mediation in there, some flexibility?

Mr. WOOD. Well, we are pretty much full-throated advocates for the Clean Water Act at Trout Unlimited—big fans of cold, clean, fishable water. But I think when you are talking about these seriously impacted sites where things are so bad, the streams are orange, where you have lead, zinc, cadmium, arsenic, and all kinds of bad stuff, do we prefer to get to 100 percent of Clean Water Act standards? Absolutely. But the scope and the magnitude of the problem is so great that any increment of improvement should be allowable.

Dr. GOSAR. So, we could find a mediation in which improving the water quality would actually support wildlife and habitats?

Mr. WOOD. Without question.

Dr. GOSAR. Gotcha. Mr. Graves, in your written testimony, you discuss various treatment plans to mitigate acid mine drainage. Could you elaborate on the difference between passive and active

treatment systems, and the associated cost of installation and long-term maintenance?

Mr. GRAVES. OK. An active treatment system typically has a large infrastructure associated with it. It has personnel that operate that treatment system to ensure that the discharged water meets Clean Water Act standards on a consistent basis, so it typically has quite a bit of manpower associated with it. Those plants often cost in excess of \$20 million dollars to construct, and on occasion cost up to \$1 million dollars a year to operate.

A passive treatment system relies on biological processes to mitigate the contaminants and the discharge. Those systems can be constructed and may only require limited or occasional maintenance to maintain discharge, but the discharge may or may not meet Clean Water Act standards on a consistent basis. So, it is an incremental improvement at a much lower cost than construction of a full-scale facility that would meet those standards.

Dr. GOSAR. Could you imagine a potential to have a flexibility of standards to use passive as a first step and then the active later on for cost savings?

Mr. GRAVES. Certainly. I think that would be a good option, attempting to get something done on site to see how achievable meeting those standards might be with some type of passive system.

Dr. GOSAR. So, let me ask you a question. Are mining and clean water mutually exclusive?

Mr. GRAVES. Absolutely not.

Dr. GOSAR. Mr. Wood?

Mr. WOOD. They don't need to be.

Dr. GOSAR. Yes. Ms. Coleman?

Ms. COLEMAN. I would agree with both Jeff and Chris.

Dr. GOSAR. How about you Mr. Strohmaier, are they mutually exclusive?

Mr. STROHMAIER. They do not need to be mutually exclusive in all cases.

Dr. GOSAR. The gentleman behind you, I hope he took inventory of that answer because that was not your answer last time here in front of the Committee.

The gentleman from California is recognized for his 5 minutes.

Dr. LOWENTHAL. Mr. Strohmaier, in the Majority's memo for this hearing, it says that it must also be emphasized that modern mining activities do not create the kinds of hazards present at some historic AML sites. And it also says, "Modern instruments enable today's hardrock industry to comply with all appropriate environmental regulations, laws, and permits." Do you agree with these statements?

Mr. STROHMAIER. Yes and no. Without a doubt, today's regulatory environment technological capabilities are very different than the late 19th century, early 20th century when it comes to mining, but I think there are some counter-examples in my home state that lend some credence to the view that even in those conditions with better technology, with better regulation, things can go very much awry.

In the late 1980s, at the Butte Mountain Mine near Anaconda, Montana, cyanide heap-leach mining was permitted. It ceased

operation about a decade later, and shortly thereafter in the late 1990s, Pegasus Gold declared bankruptcy. In 2004, the U.S. Forest Service took over management of the reclamation of the site.

This is a site where it has created significant ground water, surface water contamination. It is an example of a modern era mine that has gone bad, and there might be many reasons for that, but clearly it is not a clear-cut case that all mining today is environmentally sensitive or sound.

Dr. LOWENTHAL. Thank you. Mr. Wood, do you have anything to add to that or any take on take?

Mr. WOOD. Well, we are very much in the business of repairing damage from the past and trying to avoid damage in the future. So, there is absolutely no question that modern engineering and mining practices are vastly superior 200 years ago, but that doesn't mean that every landscape is appropriate for mining. There are some places that the natural resources that are present are just so rich and so important that they should be left intact and left alone. One landscape that we care very deeply about is a place called Bristol Bay, Alaska, where a very large mine has been proposed in the headwaters of that system, and we think that would be a travesty to build that mine. But generally, around the West, most modern mines are permitted much more effectively than they were in the past.

Dr. LOWENTHAL. Thank you. It seems like there are two issues that we are dealing with here, the lack of Clean Water Act liability protection and the lack of funding to complete a lot of projects with or without the liability waiver. I would like to ask each witness to tell me which they think is the more pressing need. Is the lack of funding the primary problem and the Clean Water liability secondary, or is it the other way around, and does this depend on whether you are a potential Good Samaritan, a state, a country, and so forth?

Mr. Strohmaier, let us start with you. Of those two, where do you see the critical issue, if there is a critical issue of the two?

Mr. STROHMAIER. Thank you, Mr. Lowenthal, Mr. Chairman. While neither are mutually exclusive, I would say without a doubt from my local government standpoint, funding. In our county, Missoula County, 53 percent of our county is public land, Federal land, and U.S. Forest Service Bureau of Land Management. We have, as I mentioned, 186 abandoned mines in our county. Even if we have NGOs, and we certainly do have great partnerships with organizations such as Trout Unlimited, the bandwidth is only so large for that.

Dr. LOWENTHAL. I am going to cut you off, thank you, to see where the others—Ms. Coleman, do you have any thoughts about it?

Ms. COLEMAN. Thank you, Congressman Lowenthal. I think everyone on this panel acknowledges that the gap between the funds needed and what we need to do to clean up is almost an impossible divide. In Montana, we do have some limited funds for abandoned hardrock reclamations, so even with additional funding, we are still going to need our Good Samaritans to help extend that.

Dr. LOWENTHAL. OK, so you say the funding. Mr. Wood?

Mr. WOOD. I think the politics of getting Good Samaritan done are so much easier than the funding issues. I would say tackle that one first.

Dr. LOWENTHAL. You tackle the funds?

Mr. WOOD. We need both.

Dr. LOWENTHAL. Mr. Graves?

Mr. GRAVES. We do need both, and I do think that the liability concerns related to CERCLA and the Clean Water Act are the more pressing need.

Dr. LOWENTHAL. All right. So, three funding, one liability act. Thank you, and I yield back.

Dr. GOSAR. Well, I intercede because it has always been a proven aspect that good process builds good policy builds good politics, and you can't throw money at the situation when you don't have a process. That is what I was trying to get to.

Dr. LOWENTHAL. That is why I said we need to reform the 1872—

Dr. GOSAR. I think we need to do something else besides that.

Dr. LOWENTHAL. Thank you.

Dr. GOSAR. The gentleman from Colorado, Mr. Lamborn, is recognized for 5 minutes.

Mr. LAMBORN. Thank you, and thanks for this important hearing. There are a lot of issues here. One thing that seems to be coming out from your testimony is that it is possible to let the perfect be the enemy of the good. In Summit County, Colorado, for instance, we could have been doing something for 20 years. Even though it wasn't perfect, it would have been a big advance over the status quo.

So, I have had Good Samaritan legislation pass, not a global solution, a more modest step that would take us part way down the road, and I am hoping we can still at least make that kind of advance here soon until that day comes when we have a global solution.

Mr. Wood, modern mining operations invest significant resources to meet the strict requirements of the Clean Water Act. Because of those efforts, I believe modern mining companies have the expertise and technology necessary to improve water quality at abandoned mine land sites. Do you believe that Good Samaritan legislation should allow modern mining companies that did not create the environmental problems at the identified legacy site to qualify as Good Samaritans?

Mr. WOOD. As long as they don't have a legal interest in the abandoned mine, in other words, if they have not acquired it as part of a broader acquisition, I do. I feel very strongly. The mining industry has a tremendous amount to contribute in terms of knowledge, machinery, and technology to cleaning up abandoned mines. I wouldn't want to give them a get out of jail free card if they have acquired a property that has historic mining waste that they are legally obliged to clean up, but if they are just working next door to abandoned mines and they have no legal interest in those mines and they want to help clean them up, I think they should be Good Samaritans.

Mr. LAMBORN. OK. Excellent. And in light of their expertise and their ability to improve water quality, do you think that the

incentives should be allowed so as to encourage mining companies to be good Americans, like removing and processing valuable minerals contained in the waste prior to the environmentally sound disposal of those wastes?

Mr. WOOD. I am not sure I understand the question, sir.

Mr. LAMBORN. Should a Good Samaritan be allowed to process the tailings for mineral content while they are disposing of the tailings?

Mr. WOOD. I see what you are saying. Well, the original Good Samaritan, there was no profit motive involved in helping him on the road to Samaria. But I think that by all means they should make a profit and they should plow that profit back into an AML fund that we can reinvest in cleaning up additional abandoned mines.

Mr. LAMBORN. OK. But whatever happens to that money, you are not opposed to extracting the minerals at some point along the way?

Mr. WOOD. I would not be if the proceeds went into an AML fund.

Mr. LAMBORN. OK. You would want them to be earmarked somehow. And I am glad you know your Bible, that is a good thing.

[Laughter.]

All of the witnesses today have identified Clean Water Act liability as a significant hurdle to Good Samaritan efforts. In particular, both meeting stringent CWA water quality standards and having perpetual eternal liability under the CWA for point source discharges are issues that have discouraged Good Samaritan efforts in the past.

So, for Mr. Graves or Ms. Coleman, do you think that providing state and Federal regulators with the flexibility to adjust CWA requirements and standards for Good Samaritan projects is necessary to achieve successful nationwide Good Samaritan programs? Either one of you.

Mr. GRAVES. Absolutely, I would agree with that. I think it is critical to provide states with that type of liability protection to implement projects where the end result may not be meeting Clean Water Act standards but is an improvement to water quality downstream.

Mr. LAMBORN. OK. Since you have taken that question, I will ask you the next question.

Ms. COLEMAN. OK.

Mr. LAMBORN. While significant improvements to water quality are obviously one of the goals of Good Samaritan work, do you think flexibility is needed with respect to water quality improvement requirements so as not to discourage efforts that while improving water quality may not be able to achieve the "significant" water quality improvements?

Ms. COLEMAN. Congressman Lamborn, I want to make sure I have your question correct. Are you asking, do I agree that Clean Water Act standards should be allowed flexibility to allow improvements?

Mr. LAMBORN. Yes, even if they can't get up to the significant category.

Ms. COLEMAN. Yes, absolutely. I think that the purpose of a Good Samaritan law would be to allow that flexibility. And I would also like to add that the AML programs in states acting as Good Samaritans would like to be afforded that opportunity as well to clean up abandoned mines, to improve water quality, but not achieve perfection.

Mr. LAMBORN. Thank you all for being here today. Thank you, Mr. Chairman, for having this hearing. I yield back.

Dr. GOSAR. I thank the gentleman.

The gentleman from Florida, Mr. Soto, is recognized for 5 minutes.

Mr. SOTO. Thank you, Mr. Chairman. There was a premise that the polluters are long gone, so I wanted to sort of confirm this first. We will start out with you, Mr. Graves. Are the polluters, a.k.a. the owners of the abandoned rock mines, long gone in Colorado? And if so, how did your state allow that to happen?

Mr. GRAVES. What we typically term as a legacy site or an abandoned site in Colorado is that mining took place prior to environmental laws being enacted in Colorado. At the time, there was no regulatory authority requiring operators to post a bond or to complete reclamation prior to that point in time. So, for the most part, on the abandoned mine sites that we work at, there is no operator that was under regulation by the state at the time that they stopped operation.

Mr. SOTO. And has your state implemented an abandoned rock mine fee going forward?

Mr. GRAVES. We don't have a specific fee associated with abandoned hardrock mines, but we do receive state severance tax dollars from the production of oil and gas, coal, and hardrock that does go back into the Department of Natural Resources to be used on natural resource issues, which abandoned mines are one of those.

Mr. SOTO. Ms. Coleman, same question. Are the polluters long gone in Montana? And if so, how did that happen?

Ms. COLEMAN. Thank you, Congressman Soto. Yes, they are. In fact, the Abandoned Mine Lands Program is restricted to only work on true abandoned mines and that is where no potentially liable parties still exist, so a lot of our mines were abandoned around the 1950s, prior to environmental regulations.

Mr. SOTO. And does your state now have an abandoned hardrock mine fee?

Ms. COLEMAN. Thank you, Congressman Soto. Yes, they do. It is a fee on mineral production in Montana, and I guess we will be expecting that revenue to come in in 2018.

Mr. SOTO. Commissioner Strohmaier, what would the uses be in some of these abandoned mines? Would it be predominantly fishing, or would there be swimming or other activities?

Mr. STROHMAIER. Thank you, Mr. Soto. All of the above. As I mentioned in my testimony, we have now over \$7 billion in consumer spending going on in Montana related to recreation. It is our largest economic driver in the state, and that runs the gamut of folks who recreate in our waters, related to fishing, boating, but also simply clean water. Folks come to Montana, actually,

Missoula, Montana, to set up business because of the quality of life, because we do have clean water across the board.

Mr. SOTO. Thank you, Commissioner. Mr. Wood, if we allowed fishing and swimming, do we know what safe increments are of all these various leftover minerals and toxins?

Mr. WOOD. I think the states do know those things.

Mr. SOTO. Already?

Mr. WOOD. Yes, I think so.

Mr. SOTO. And do we know what the health effects would be for fishing or swimming? I mean, would you recommend swimming in some of these places?

Mr. WOOD. You mean places pre-cleanup?

Mr. SOTO. No, post-cleanup.

Mr. WOOD. I would, yes. We have participated in a number of those projects, and I can tell you, the fish response is astonishing.

Mr. SOTO. So, for the liability protection, going back to Mr. Graves and Ms. Coleman, would this extend just to liabilities related to water pollutants, or are you asking that we extend it to dangerous conditions such as old equipment that may have never been picked up or unstable rock foundations? Is this just going to be a water liability thing, or are you asking for a blanket liability for everything? We can start out with you, Ms. Coleman.

Ms. COLEMAN. Thank you, Congressman Soto. I think, Number one, more important would be the Clean Water Act liability protection and also CERCLA liability protection. But, I think, in order to engage our Good Samaritans and allow states to be Good Samaritans as well, they need to be assured of comprehensive liability protection, but I think it would be on case-by-case basis to be determined.

Mr. SOTO. Mr. Graves?

Mr. GRAVES. I would agree with Ms. Coleman that, really, the bigger issue is the Clean Water Act and CERCLA liability protection.

Mr. SOTO. It seems that if we are talking about extending liability protections because you cannot make the water perfect under the Clean Water Act, there may be some wiggle room there, but extending it to conditions that should be fixed up before the public goes in—I could imagine some old rusty equipment that was never pulled out or rock formations that are unstable that could collapse on people. Those seem to be things that I don't personally think the liability should extend to, but there are always arguments about the water issue knowing that we cannot get the full clean water attainment. I yield back.

Dr. GOSAR. I thank the gentleman.

The gentleman from Virginia, Mr. Wittman, is recognized for 5 minutes.

Dr. WITTMAN. Thank you, Mr. Chairman. Mr. Wood, I wanted to ask you a specific question. From Trout Unlimited's standpoint as you pursue these reclamation projects, first of all, how do you do that? Do you use subcontractors to do that, or do you have folks within there that are project managers—give me a little idea about how that comes about?

Mr. WOOD. We do both. One of the first things we did was in a place called American Fork Canyon in Utah. In that case, this was

a true Good Sam project. There was a landowner, Snowbird Ski and Summer Resort, that didn't have any historic interest in the mine waste, but they also didn't want to touch it. And it wasn't a high-enough priority for EPA to go after them, so it just sat there leeching out, these tailings piles. So, it was largely a CERCLA issue.

And, in that case, we hired an engineer who effectuated the cleanup. It took 2 years for us to work with EPA to get a Good Sam agreement which fixed the CERCLA problem, from our perspective anyway, and we still maintain that position. So, we are really mostly concerned about the Clean Water Act. And it took about 8 days to do the actual restoration, it was a very straightforward restoration.

Dr. WITTMAN. That is great. Let me ask you about, again, extending from the idea of liability, if you are a project manager versus just subcontracting with somebody, does the liability extend to the subcontractor if you subcontract with them versus if you are the project manager yourself?

Mr. WOOD. I am not an attorney, so I don't want to get out over my skis here, but in the case of that project I just mentioned, the American Fork, the solution was we came up with an AOC, an administrative order of consent, from the EPA. And basically, they said, "We will hold you harmless if you do everything that is stated in this contract." So, our engineer had subs come in, and we assume the liability for the subs, and they have their own liability protection obviously as a professional engineering company.

Dr. WITTMAN. Gotcha, so it is kind of a tiered liability; you have overall liability for the projects, they have liability for their actions on the job?

Mr. WOOD. Exactly.

Dr. WITTMAN. OK. Very good. Thank you, Mr. Chairman. I yield the balance of my time to Mr. Tipton.

Mr. TIPTON. Thank you, Mr. Wittman. And I thank the panel for being here. Mr. Chairman, thank you for holding this hearing. I think it is incredibly important.

Mr. Wood, I do want to be able to compliment you on your site that you just put up, something on the Animas River, obviously critically important, the 3rd Congressional District of Colorado, and something we are proud to be able to play a role with our Hermosa Creek legislation which went through this Committee and through the Full House as well.

As you know, in the past, we have had some discussions with Trout Unlimited in regards to pilot projects, to be able to prove that something can actually work, and the liability has always been the sticking point. And I am really gratified to be able to hear with our colleagues on both sides of the aisle, the recognition that it is important to really actually start addressing this.

And would you say from Trout Unlimited's standpoint, if we do make some incremental gains, is that a positive for the river?

Mr. WOOD. Without question, yes. And I think it is not just a positive for the river, but for those people who are afraid of making any changes to the Clean Water Act. If we can model the kind of behavior that we are all talking about in this room over a 5- or a 10-year period and people can see that, wow, you actually can see

a response in the aquatic vegetation, you can see a response in the water quality, you can see better fishing, there will be more of these projects that will pop up around the country.

Mr. TIPTON. Right. And I think we are all in agreement, nobody is talking about a wholesale change on the Clean Water Act, but to be able to make sure that it is flexible enough to be able to address the challenges that we are finding particularly in the Mountain West as it pertains to hardrock mining from abandoned mines. Would that be accurate?

Mr. WOOD. From our perspective.

Mr. TIPTON. Great. Would you concur with that, Mr. Graves?

Mr. GRAVES. Absolutely.

Mr. TIPTON. Great. I think we have some great ideas. And some, as my colleague from Colorado, Mr. Lamborn, had pointed out, through our delegation we have made several stabs at trying to get Good Samaritan legislation to be able to move through. But, specifically, to what you were targeting, the liability issue has always been the sticking point. How long, and to whom is it going to be applied? When we are looking at that actual liability, when we are going to have that tailored a little bit, perhaps to Mr. Soto's point, would you see that as something that would be acceptable to the broader environmental community as well?

Mr. WOOD. Is that for me, sir?

Mr. TIPTON. Yes, sir.

Mr. WOOD. Could you just repeat the question for me?

Mr. TIPTON. Yes. When we are saying liability from falling rocks or rusting equipment, we will make this targeted?

Mr. WOOD. Yes, I think that is right. I think people would be afraid of an over-reach. And if there are physical hazards on site that need to be taken care of, they should be taken care of.

Mr. TIPTON. Great. Mr. Wittman's time has expired. I hope I am next.

Dr. GOSAR. You will be after Mr. Beyer.

Mr. TIPTON. Great. Thanks.

Dr. GOSAR. Mr. Beyer.

Mr. BEYER. Thank you, Mr. Chairman. And thanks for coming. This Committee is usually so bipartisan and we get along so well, it is really fun to have this—so thank you for coming to have something we can agree on.

[Laughter.]

I just want to associate myself with the idea that Good Samaritan legislation is good, especially if carefully written. I think Ms. Coleman, your line here where it says, "This means that even where these projects are conducted under established procedures, condoned by the EPA and/or the state NPDES authority, and are improving water quality by reducing pollution loading, they could still be sued by a third party and be assessed immense, perpetual liability."

And Mr. Chairman, I just want to point out that my father-in-law retired from medicine at age 65 and moved to Florida as he had always dreamed to play golf every day. He lasted 3 weeks. He was bored out of his mind, and came back to Virginia and began practicing medicine in clinics all over the state where they had essentially Good Samaritan laws, where he didn't have to carry this

huge burden of liability insurance and was able to help thousands of people over that 5-year period because he had something like this in place. Many people, it was only their first or second time they had seen a physician in their life, so I associate myself with this in the balancing of rights.

But moving on, I am concerned that there are 500,000 abandoned hardrock mine sites, and I suspect that a Good Samaritan will address only a fraction of those. I think about my experience as an automobile dealer where we pay a fee for every tire we buy and dispose of, a fee for all of our Freon titling fees for every car we sell. I have personally had to supervise the digging up of at least 12 underground gasoline tanks that I had inherited rather than that I installed.

And I wonder, is there anyone on the panel who thinks it would be unfair, or a bad idea, or counterproductive, to have a fee on hardrock mining that mirrors what we do on coal mining?

I am hoping this is someplace we can be bipartisan also. This might help us do the rest of those 500,000. No, I am not going to ask you. Thank you.

[Laughter.]

I will note for the record that our panel thinks that they have no strong objections to that.

And finally, Mr. Graves, you talked about 30 underground coal mine fires, or later managing 33 underground coal mine fires. Are these ongoing?

Mr. GRAVES. They are ongoing, and they change. We have had new ones crop up this year based on wildfires that ignited some surface coal waste.

Mr. BEYER. So, they come and they go. Well, let me ask you a harder question here. There seems to be a fundamental disconnect in a lot of the testimonies about the Good Samaritan projects. You have listed all the tremendous work that has already been done by Good Samaritans, but then talk about all the Good Samaritan projects that you cannot do because of CERCLA and the Clean Water Act. What is the difference between one and the other?

Mr. GRAVES. I think in my testimony the sites that I did list that have been done typically are SMCRA sites who are working on physical hazards, fewer of the environmental hazards where the CERCLA liability or Clean Water Act liability comes into play. There are some sites where we have partnered with Federal agencies when they have exercised their CERCLA authority, thereby providing protection for all those people that participate in those projects. So, there is some work that has been done under the guise of Federal actions, removal actions by various entities, including the Forest Service, BLM, and the EPA, where we have had multiple partners together to implement projects.

Mr. BEYER. One last question for Ms. Coleman and/or Mr. Graves. You both talked about the 3,800 miles of streams just in those two states impacted by acid mine drainage or metal contamination from abandoned mines. Do you have any idea what the volume is of acid mine drainage entering the waterways every year, in thousands of gallons, billions of gallons?

Ms. COLEMAN. I am sorry I don't know that number, but I could try to look into it and get you an answer.

Mr. BEYER. And Mr. Graves?

Mr. GRAVES. I don't have that number. I could look into it, but that would be relatively difficult to establish because it does vary seasonally.

Mr. BEYER. If you could try at least. One of the things we are trying to do is, we had a lot of hearings last year about the Gold King Mine spill, which was 3 million gallons, and it was a big deal and is incredibly ugly. It makes for great video. I am trying to sense how big was that relative to what is going on in your states year after year after year, perhaps not in a course of a couple of hours, but over the course of a year. It would be nice to get that in perspective. And with that, Mr. Chairman, I yield back.

Dr. GOSAR. I thank the gentleman. I thank the gentleman for his analogy with health care because I think that was a very good example. Thank you.

The gentleman from Colorado is acknowledged.

Mr. TIPTON. I thank you again, Mr. Chairman. And I am glad Mr. Beyer, my colleague, brought up the Gold King Mine. When the adit was breached in 2015 with the EPA breach, we did see the 3 million gallons go in. And I would concur over the long haul, you will see gallons that are flowing in, that massive impact at that one time, flowing in and making the river flow gold was dramatic literally to our local communities. In the state of Colorado, we have a pretty good track record of trying to be able to move forward on this.

Mr. Graves, I had a couple of questions, maybe they are a little specific to our state. Would you maybe go through a little bit of the process that is required for projects under Colorado law for the Inactive Mine Reclamation Program? What is the approval process that you have to be able to go through?

Mr. GRAVES. For our process for inactive mine work that we do, it kind of falls into various categories.

For the physical safety closure work that we do throughout the state, that is sealing shafts and adits and other physical safety features where the public can get injured, the process we go through is we receive grants from the Office of Surface Mining, and then we propose projects throughout the state to address the highest priority physical safety hazards, and then we have an advisory council where we bring those projects to them, and they then approve it for presentation to our Mine Land Reclamation Board where it gets final approval for those projects to proceed.

With respect to the environmental side of the work that we do, that is typically organized through what we call our mixed ownership group, which is coordination between Federal, local, and state agencies that meet together and propose projects based on each individual agency's funding levels and their specific authorities that they could use to implement projects, like the Forest Service or the EPA. So, it varies depending on the types of projects.

Mr. TIPTON. OK. Great. And are there any sort of qualifications necessary for the third-party participation in the cleanups, any criteria by the state?

Mr. GRAVES. There is no specific criteria.

Mr. TIPTON. No specific criteria. Pretty much the same circumstances in Montana, Ms. Coleman?

Ms. COLEMAN. Yes, the same. Most of our Good Samaritan partners are partners in funding. So, they bring funding to us, and we do the work with them and incorporate their designs and our designs at the same time.

Mr. TIPTON. And for the both of you, is the third-party eligibility as Mr. Wood had described, where they were the principal, are they the ones who determine who can be the third party? Is that to the principal of person, say in this case Trout Unlimited as an example, who is going to determine eligibility for third parties or is that left strictly up to the principal who is going to clean up?

Mr. GRAVES. Usually, it is a function of the principal that is doing the cleanup, but a lot of times it is driven by who is receiving the funding and who has the funding to actually do the work.

Mr. TIPTON. OK. The same thing in Montana?

Ms. COLEMAN. I am not sure I quite understood the question that you are asking.

Mr. TIPTON. You will have a third party, as Mr. Wood had described, it was not necessarily Trout Unlimited, with the equipment on the ground to be able to start the cleanup. Some third-party people came in, they were the over-arching. Are there any eligibility requirements in Montana or is that just left up to the principal for the third party?

Ms. COLEMAN. Not that I know of.

Mr. TIPTON. OK. Again, I appreciate the panel so much and I am pleased to hear some good common ground on a critical important issue for the West. And for our state of Colorado, Mr. Graves, I appreciate you taking the time to be here. I will yield the balance of my time to the Chairman.

Dr. GOSAR. Thank you. I thank the gentleman. I am going to save that time until the end of the discussion, because I think there are some important summaries that we need to get.

The gentleman from Georgia, Mr. Hice, is recognized for 5 minutes.

Dr. HICE. Thank you, Mr. Chairman. And thank each of you for being here today.

Mr. Graves, I would like to begin with you. So far as it relates to public/private partnerships, there has been great success in Colorado and Montana, other examples that are very, very encouraging regarding the abandoned hardrock mines. With that in mind, what kind of guidance or assistance would you need from us, from the Federal Government, to help enable reclamation projects at the state level?

Mr. GRAVES. I guess it is less guidance, it is more protection. We have been talking about Good Sams as a whole and I think what sometimes gets lost in that broader discussion is that states really are a Good Sam in most of these cases. And, also, because we are acting as a Good Sam, we need those same kind of liability protections. Just because we are a state doing a cleanup doesn't mean that we are free from long-term liability associated with the cleanup.

Dr. HICE. So, that would apply to states whether they already have programs, that type of thing, or not?

Mr. GRAVES. Correct.

Dr. HICE. The Number one issue would be protection?

Mr. GRAVES. Correct.

Dr. HICE. OK. Assuming that is kind of across the board, would most of you agree with that?

OK. One other question for you. What factors do you think should be taken into account when delegating responsibilities of program oversight to the states?

Mr. GRAVES. That is an excellent question. I think it needs to be a well thought out program, in terms of oversight and recognizing that the work that is being conducted obviously comes with certain risks associated with it. So, sufficient review of projects by appropriate people, I am sure there are other things I can think of in the future, but—

Dr. HICE. All right. Would anyone else like to address that?

Ms. COLEMAN. Thank you, Congressman Hice. I think in Montana, we feel that because we have primacy on the Clean Water Act in Montana and also we have other regulations that would be over these Good Samaritan projects that the Federal guidance that comes down, we would also like primacy on that in Montana to determine who is and who is not a Good Samaritan.

And we really like the process in the Pennsylvania example of community reclaimers where these Good Samaritans come to the state, form a partnership with the state, and then in that, the liability protections would be extended.

Dr. HICE. OK. Good.

Mr. Wood, let me ask you this because your organization has certainly been a part of these reclamation projects in states across the country. With what you all have done, what elements of the state program make public/private partnerships effective? What do we need to know that makes this whole thing work?

Mr. WOOD. We were commenting earlier before the hearing that the relationships that we have in the two states that are represented here are phenomenal. There is no daylight between the work that we are doing with our partners in Colorado or in Montana. I think that sort of partnership needs to be a really strong and maintained.

And I think, as was just said, leaving as much discretion to the state to set the kind of standards they want to set I think is appropriate.

Mr. TIPTON. All right. Do you think the states need to have a more powerful voice than the Federal Government?

Mr. WOOD. In places where the Clean Water Act authority has been delegated to the state, it is probably appropriate that they would set the standards.

Dr. HICE. Which makes sense. They are closer to the problem, so their interest is—and one size doesn't fit all. This can't just be a cookie cutter thing. Is that more or less what you are saying?

Mr. WOOD. More or less.

Dr. HICE. OK. Anyone else on that? Anybody want to add to it?

Mr. STROHMAIER. Yes. One of the impediments that we found with working with the Federal Government in particular is from a contracting standpoint it has been much easier working contractually with an NGO like Trout Unlimited than it has been with the U.S. Forest Service. Our local government entity receives grant monies from Montana DEQ, Department of Natural Resources in

Montana, and then enters into—at least on some of our CERCLA projects with the U.S. Forest Service—contracts with them and they administer the actual work. But the contracting for those projects is a significant burden and impediment, so I would say engaging local government in the discussion would be important.

Dr. HICE. Excellent. And, again, I want to say thank you to each of you. This has been very insightful and informative, and I appreciate it. I yield back, Mr. Chairman.

Dr. GOSAR. I thank the gentleman. They just called votes, but we will have time.

Mr. Gianforte, you are recognized for 5 minutes.

Mr. GIANFORTE. OK. Thank you, Mr. Chairman. And thank you all for your testimony today.

Ms. Coleman, in your testimony, you highlighted the great work that Trout Unlimited did with Montana AML, specifically on the Lilly Orphan Boy project on Telegraph Creek. And I commend your work there getting it cleaned up, but was disappointed to hear that you were not able to complete the project, that there was a section that you couldn't touch, and you point out the irony. But Ms. Coleman, could you elaborate on why you had to step away from the project and not actually complete it?

Ms. COLEMAN. Thank you, Congressman Gianforte. We jokingly refer to that as Phase 2 of Lilly Orphan Boy. We did this cleanup and we have significant water quality, but there is still a draining adit in the middle of that site. We have talked about exploring options, but with so little funds between not only our program but our Good Samaritan partners, our hands are kind of tied. And then on top of that, we are both adverse to accepting that liability from the Clean Water Act, so—

Mr. GIANFORTE. So, suffice to say, you cleaned up the whole site except where it drained out of the adit into the stream?

Ms. COLEMAN. Exactly. The conversations around the design were, "Leave the adit alone, don't touch it," because, again, we are concerned about the "you touch it, you bought it," so it stays where it is.

Mr. GIANFORTE. Are there things you could have done to improve the water quality coming out of the adit and into the stream?

Ms. COLEMAN. I think so. We have not done an extensive geochemical investigation there, but I think so. I think we could have done a series of ponds to slow that water down and let the chemistry equilibrate. We could have redirected flow. We could have done a few things. We didn't do an extensive study, but I believe we could do more.

Mr. GIANFORTE. And based on your experience working on projects like this, if you had done those ponds or some other passive approach, would that have improved the water quality?

Ms. COLEMAN. Again, without extensive geochemistry and modeling, I do think so based on what we have seen.

Mr. GIANFORTE. OK. And just to put a sharp point on it, what was it about the adit that caused the working group to not want to touch it?

Ms. COLEMAN. Again, it would be that liability risk that either us or our partners in Trout Unlimited would accept or would not accept, I guess.

Mr. GIANFORTE. OK. Just as a follow-on, is there anything else we should do in this legislation beyond curbing liability that would allow us to preserve this goal of cleaning up these mines?

Ms. COLEMAN. I think it is important to recognize that Water Quality Act liability is huge, but also CERCLA liability is significant for the states and Good Samaritans, so that would be a good place to start. Good Samaritan could get very big very fast, so I think starting with those two would be a very good place.

Mr. GIANFORTE. OK. And then for Mr. Wood. You recommended a series of pilots, and I am just curious, what would the qualifications for these projects be? How should they be chosen? How would you measure success?

Mr. WOOD. Well, I would frankly leave that up to the states working with the EPA to choose where the pilot should be. And the measures of success—again, I am not a biologist—but I think improvements in water quality, certainly in trout waters, improvements in trout populations. I think they are fairly measurements that we could take.

Mr. GIANFORTE. OK. Thank you to the panel again for your testimony. This was very informative. Mr. Chairman, I yield back.

Dr. GOSAR. I thank the gentleman. I have just a couple of summaries here.

Mr. Wood, you have been involved with some of these demonstrations or some of these projects. In these projects, what do you consider kind of that threshold of change? Is it a simple project, is it a complex process pilot? Where is the first problem in the pilot?

Mr. WOOD. Where is the first problem, sir?

Dr. GOSAR. Yes. I mean, some of the simple mitigations are pretty simple. I get that. Where is that next threshold for our pilot?

Mr. WOOD. To get to the more—

Dr. GOSAR. I am trying to define where we need to go as a solution. Where do we need to pick the fight so that we can emulate—once again, one of the things I am going to tell you is trust is a series of promises kept. There is not a lot of trust, not only from your side, but from this side to this side, this side to that side. I think you replicate function by replicating success.

Mr. WOOD. I think that is right. And for that very reason, my recommendation would be that we keep it simple initially, and pick high-visibility sites that are in big population areas where we can ballyhoo and hold up to success so a lot of people can see it, and then begin to do more of them.

Dr. GOSAR. And would you oversee that with a coordination director, how would you go about that? Would there be one entity? Because what you are trying to build is trust between the Federal, state, local NGOs, all the way across the board. So, how would you put that, who would head that?

Mr. WOOD. I think the way it works right now is good and I wouldn't mess with it. I wouldn't create any over-arching bureaucracy or apparatus. I think the trust issue is probably more prevalent with people who are concerned that we are going to create too many get out of jail free cards and we are going to start exempting people from various environmental laws. I think that once we demonstrate that that is not at all our intent and we see improvements

in the environment, that fear will go away, that trust will be gained, and we can take it to the next level.

Dr. GOSAR. How many pilots do you think we should initiate so that we can build that trust? What do you think it would take?

Mr. WOOD. Ten is a good number.

Dr. GOSAR. Ten? Describe the 10.

Mr. WOOD. Well, half of them come through Trout Unlimited. They are all in watersheds that we pick.

[Laughter.]

I mean, I was in jest, but I am actually partly serious. I would look for projects where you have a diverse array of stakeholders and partners because it is going to help to build that trust that you are talking about. And I would look for where you are going to see the highest return on investment, whether it is from a trout response which is what I care about, or helping endangered species, or reducing downstream water filtration costs for the local community. I would build an ROI into the selection of the pilots.

Dr. GOSAR. Mr. Graves, do you agree with that?

Mr. GRAVES. Completely. Yes, I think it is taking advantage of projects where you have lots of potential partners and parties. That way, you can show off the work that you have done and demonstrate the fact that we can all work together to achieve a common good, which is cleanup on these sites. I think selecting sites that are relatively simple gives you the best possibility of achieving that success in a pretty short period of time.

Dr. GOSAR. And coming from Colorado, you could identify a site within Colorado that you think that—

Mr. GRAVES. I think we could identify a couple of sites in Colorado that would provide a good opportunity to demonstrate a pilot program.

Dr. GOSAR. Ms. Coleman?

Ms. COLEMAN. Thank you. I think it would be important to work in a watershed where there is other abandoned mine land work going on, so that you would see substantial improvements to the whole watershed or the whole drainage. So, I think a pilot program where there is adjacent work going on would be really key.

Dr. GOSAR. I like the idea, in particular, of leveraging active mine sites within the geographic area. Because they may not own the mine site, but when you have a mine presence there, you actually have a bunch of the infrastructure there that will facilitate some of the mediation. Would you agree?

Ms. COLEMAN. I think that could be possible within the constraints of the pilot.

Dr. GOSAR. Yes. I am referencing some areas that are happening in Arizona.

Mr. Strohmaier, would you agree?

Mr. STROHMAIER. I would agree entirely. And I am positive we could come up with a site in Missoula County, Montana to participate in the pilot.

Dr. GOSAR. The reason I am going there is because you are going to see some questions from me to you to try to outline how do we build a pilot program. Because I think we can't go forward without building some trust through some types of pilots, and we want a

vast array of them so that we can show from the very easy to the very complicated and how do we mitigate that.

I see you agreeing, Mr. Minces. Would you agree? Would your group be behind something like that?

VOICE. In consultation with our friends at Trout Unlimited, of course.

Dr. GOSAR. Perfect. I thank the folks, I thank the witnesses for their valuable testimony, and the Members for their questions.

The members of the Committee may have some additional questions for the witnesses, and we ask that you respond to those in writing.

Under Committee Rule 3(o), members of the Committee must submit witness questions within 3 business days following the hearing by 5 p.m., and the hearing record will be held open for 10 business days for these responses.

If there is no further business, without objection, the Committee is adjourned.

[Whereupon, at 3:31 p.m., the Subcommittee was adjourned.]

[LIST OF DOCUMENTS SUBMITTED FOR THE RECORD RETAINED IN THE COMMITTEE'S OFFICIAL FILES]

Rep. Gosar Submissions

- Policy Resolution 2016–07, *Cleaning Up Abandoned Mines in the West*, submitted by Western Governors' Association.
- Policy Resolution 2017–06, *Financial Assurance Regulation*, submitted by Western Governors' Association.

