Testimony of Chris Wood
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United States Senate Committee on Energy and Natural Resources
An Examination and Consideration of Updates to the Mining Law of 1872
October 5, 2021

Chairman Manchin, Ranking Member Barrasso, and Committee Members:

My name is Chris Wood. I am the President and CEO of Trout Unlimited (TU). Thank you for inviting me to testify on updating the Mining Law of 1872 and the opportunity it presents for tackling one of the greatest water quality problems facing our country: pollution from abandoned hardrock mines.

TU's mission is to bring together diverse interests to care for and recover rivers and streams so our children can experience the joy of wild and native trout and salmon. In pursuit of this mission, TU has worked to restore streams and rivers damaged by pollution from abandoned mine lands (AML) from the coalfields of Appalachia, to hardrock mines of the Rocky Mountain states, to historical placer mines in Alaska, and my testimony is based upon these experiences. Trout Unlimited stands ready to help expand the scale and scope of efforts to clean up AML pollution, and I offer the following testimony on behalf of TU and its more than 340,000 members and supporters nationwide.

We deeply appreciate the Committee's focus on this issue, especially at a time Congress is debating an historic infrastructure bill and reconciliation proposal that could be truly transformational for our country. I applaud the Committee for including in its bipartisan infrastructure package a bipartisan proposal to provide $3 billion in funding to jumpstart a new abandoned hardrock mine reclamation program. This is testament to the bipartisanship necessary to tackle these important issues. A similar opportunity exists for Congress to take bipartisan action to establish a dedicated stream of funding for mine cleanups, to update the 1872 Mining Law to avoid and minimize the impacts of increased domestic mineral production, and to incentivize entities that are eager to help clean up abandoned mines.

Historical mining has left widespread pollution.

While we have an opportunity to chart a path forward for responsible mining in our country, the impacts of the past are staggering. Spurred by the General Mining Law of 1872, for many years anyone with a claim was able to mine with little if any oversight – polluting waterways, stripping mountainsides and changing the landscape of the West with little regard to health, safety or environmental impacts. The impacts of those historical mines are still felt today. The Environmental Protection Agency (EPA) estimates that 40 percent of western headwaters are polluted by abandoned mines. An analysis conducted by TU found that approximately 110,000 miles of streams – enough to circle the Earth four times – are listed as impaired for heavy metals or acidity, and abandoned mines are a major source of these impairments. Of these impaired stream miles, 20 percent are in areas that contain native trout and salmon while 52 percent are in areas that are important drinking water sources.

While improvements in environmental regulations have helped stem many of the worst effects, we must continue to learn, adapt and improve if we are to provide the necessary protections for our land, air and water.

Most important, we must also expand efforts to clean up thousands of abandoned mines that continue to impact communities today throughout the country. This means we must provide the motivation, funding and programs that enable state and federal agencies, communities, watershed groups, the

mining industry, and non-governmental organizations like Trout Unlimited, to all lend a hand in the abandoned mine clean-up effort.

Abandoned mines are a pervasive problem but the solutions are right in front of us.

A 2020 Government Accountability Office report[1] estimates there are at least 533,652 abandoned hardrock mines on lands within Forest Service, Bureau of Land Management, Park Service, and EPA jurisdictions. On average, these agencies spend approximately $287 million annually identifying, cleaning up, and monitoring abandoned hardrock mines—adding up to approximately $2.9 billion in spending between 2008 and 2017. Cleaning up abandoned mines is challenging and expensive, but that does not make it any less important. The legacy of historical mining practices has persisted for the better part of a century with insufficient progress toward a solution. We can and must do better.

To help address the widespread environmental impacts associated with abandoned mines, in 2004 TU established our abandoned mine reclamation program, which has since completed more than 40 separate abandoned mine reclamation projects across six Western states. Just this year, TU expanded our efforts into Alaska, and we aspire to do even more in the coming years. To date, these projects have restored more than 200 stream miles across the West and reclaimed 155 acres of mine-impacted lands.

Our technical, partner-based approach has enabled us to become an industry leader in abandoned mine restoration. Many of those projects would not be possible without the financial and technical support from our private industry partners. Foundations such as the Tiffany & Company Foundation and companies such as Freeport McMoRan, Newmont Mining, Integra Resources, Kinross Gold Corporation, and Ouray Silver Mines Incorporated, provide valuable financial support that allows TU to leverage matching funds to accomplish meaningful reclamation, with measurable environmental improvements.

In 2014, for example, TU's Colorado AML program took on the Evans Gulch project outside of Leadville, CO. This five-year long project was important for TU for many reasons, including that Evans Gulch is a tributary to the Arkansas River, one of Colorado's Gold Medal trout fisheries, as well as the drinking water source for the town of Leadville and Lake County. The project was designed to potentially reduce heavy metal loads impairing aquatic life by identifying non-point sources of contamination and addressing these sources of runoff. One of TU's strong suits when it comes to mine cleanups is utilizing local economies, labor, and community assets. To complete the reclamation of the three sites included in the project, TU procured a firm from Colorado that utilized local material suppliers and employed nine workers throughout the project.

By the end of the Evans Gulch project, approximately $200,000 went to the Colorado contractor and material suppliers while the remaining balance of the project costs, approximately $118,000, were used to pay various local labs, legal fees, management costs, and local businesses. Not only do projects like Evans Gulch improve the environment, they also can provide a learning experience for the next generation of reclamation specialists. Since completed in 2018, TU has used the data and outcomes of this project to educate local high school students, college classes, and university field study groups on the importance of mine reclamation and surrounding environment.

Elsewhere, this year we completed the fifth phase of one of our longest running western mine reclamation projects on Ninemile Creek in western Montana. This major tributary to the Clark Fork River was intensively placer mined during the last century, resulting in long sections of channelized, largely dysfunctional stream. Since 2005 we have been systematically repairing Ninemile Creek in a phased

[1] GAO-20-238, *Information on Number of Mines, Expenditures, and Factors That Limit Efforts to Address Hazards* https://www.gao.gov/products/GAO-20-238

approach, and – importantly – supporting rural Montana economies while we do it. This most recent project phase awarded an $880,000 contract to a construction firm from Eureka, MT, a historically timber-reliant community in Lincoln County. Lincoln County has one of the highest rates of unemployment in the state, and this project created eight high-paying jobs for former loggers and timber industry professionals from that community. At the same time the project has restored habitat and increased flows for native Westslope cutthroat trout and bull trout. We estimate that for every mile restored, there was an additional 0.5 cubic feet of groundwater entering the stream every second, providing cold, clean water throughout the summer.

Barriers to progress that Congress must address.

Abandoned mines are an enormous environmental and public health liability with tens of thousands of mines impacting our nation's waters every single day. But this is a fixable problem if we have the right policy tools, adequate funding, and a commitment to address the issue at a scale and scope to meet the challenge before us.

On funding, the Committee's infrastructure bill provision that could provide $3 billion in funding is a wonderful start, but for mine reclamation to take off at scale, a reliable funding stream is necessary. A royalty and/or fee structure for minerals extracted from public lands is appropriate. It is a proven concept: some of the value of resources extracted from the public domain should be returned to the public in the form of environmental benefits.

Every commodity produced on public lands has an associated royalty or sale proceed that is used for restoration or remediation. We do it with oil and natural gas. We do it with coal. We do it with timber. And there is no reason we should not do it with hardrock minerals, especially when the need to clean up abandoned mines is so immense and there are so many benefits for communities, local economies, and the health of our lands and waters. We strongly support inclusion of reasonable royalties and increased user fees as key elements of an updated 1872 Mining Law.

It is important that any new royalty and/or fees are both fair for the mining industry and generate significant enough revenue to make substantial progress cleaning up abandoned mines. As noted previously, federal agencies have spent roughly $287 million per year to address abandoned mines, and estimates put the total future cost of cleaning up abandoned mines at as much as $54 billion.

At the current rate, the job of cleaning up abandoned mines would not be complete until the year 2200. In other words, a much bigger investment is necessary. While new royalties and fees are needed, they are not a silver bullet. Superfund has suffered from underfunding and annual appropriations for land management agencies must increase to make the difference needed in the timespan needed. We should all recognize the substantial benefits of this investment in terms of job creation, ecosystem services, clean water, and healthier communities.

In addition to funding, another major hurdle is liability. This is an all-hands-on-deck problem. Unfortunately, groups like Trout Unlimited that have proven track records and no legal or financial obligation to clean up abandoned mine sites - true Good Samaritans - are prevented from fully deploying our expertise and resources by enormous liability risks associated with the Clean Water Act and CERCLA. This is because these vital environmental laws treat those who want to clean up pollution the same as polluters.

The only current legal mechanism to tackle draining abandoned mines with a "point source" of pollution is a federal Superfund cleanup. However, the Superfund program only addresses sites on the National Priorities List, which typically include the largest and most expensive clean ups. Superfund is not well-

suited to addressing most abandoned pollution discharges across the country. Thousands of these abandoned mines that fall outside the Superfund program bleed toxic lead, arsenic, zinc and mercury every single day without a legal mechanism authorizing state agencies and private organizations to contribute to limited federal cleanup capacity and take-on smaller, low risk remediation projects.

By passing Good Samaritan legislation, Congress can provide targeted liability protections while also holding Good Samaritans accountable to terms of their permits. In the changing western United States, where drought is the new normal, the water quality improvements associated with abandoned mine reclamation should be a welcomed opportunity to provide invaluable water resources to downstream water users. A federal Good Samaritan abandoned mine remediation program would allow numerous cleanups to move forward, helping to foster a restoration economy and creating jobs in local communities.

TU has been working with Senators on this committee to develop such a bill, as well as stakeholders in the mining industry, environmental community, and other conservation groups, and we are hopeful that a bill will be introduced soon. It is an essential key for unlocking the true measure of abandoned mine cleanups.

A clean energy transition relies on critical mineral supply chains.

As the Committee considers updates to the 1872 Mining Law, in addition to looking at fixing problems created in the past, it must also consider avoiding problems in the future. The Biden Administration has established the lofty and laudable goal of the United States reaching 100 percent carbon pollution-free electricity by 2035. This does not come without costs, however. According to the International Energy Agency, the energy sector's overall need for critical minerals could increase by as much as six times by 2040. Critical minerals like lithium, cobalt, tellurium and rare earth elements are important in electric vehicles, solar panels and wind turbines, and non-critical base metals like nickel and copper will likewise see increased demand.

Supplying this demand and securing supply chains for these minerals is important to meet clean energy goals. Before seeking new sources of raw materials, we should prioritize and fully utilize alternatives, such as recycling, substitutes to critical minerals, reprocessing old mine waste piles and ash material, and engineering advancements to reduce use and the need for new mines.

Notably, abandoned mine cleanups have the potential to be a win-win that remediates sites while also recovering minerals from mining waste that helps to meet the need for these resources. At the same time, mining for both critical and non-critical minerals is likely to increase, and it is crucial that extracting and processing critical minerals be done responsibly with an emphasis on avoiding, minimizing, and mitigating impacts to fish, wildlife, and our water supplies.

Increased domestic mining creates challenges but also opportunities—Federal land management agencies must have the proper authorities to manage risks and embrace opportunities.

A critical minerals mining "rush" that is driven by clean energy will create new environmental and social challenges, and the Committee is right to take a hard look at the Mining Law of 1872. Any mining law reforms should establish a framework for moving forward that supports a sustainable domestic mining industry, avoids and minimizes future impacts, and also generate revenue to clean up the mistakes of the past. Congress needs to establish a fair royalty and/or fee structure for hardrock minerals extracted from public lands that provides a dedicated funding stream for AML cleanups.

There is no constituency for abandoned mines, but there is a commitment across the aisle and across all interest groups to meet this challenge head-on.

At the same time, public land management agencies need better tools and resources to manage new mines. Unfortunately, mining has a checkered past.

As they do with every other multiple use on public lands, public land managers should have the discretion to deny a mine that is proposed in the wrong place. Ensuring equal consideration for all public land uses – including conservation – will allow for sound, science-based decisions. Additionally, natural resource management agencies need staff to conduct timely environmental reviews, thorough permitting processes, and appropriate monitoring and mitigation. For instance, since 1995 the Forest Service has experienced a near 40 percent decline in non-fire personnel. That means fewer biologists, fewer engineers, fewer hydrologists, less community involvement, and fewer professionals available to ensure mining is done in a way that is compatible with other demands on our public lands.

Conclusion

The scale of the abandoned mine lands problem is staggering, and the environmental and human health impacts that these mines have can be severe. However, smart updates to the 1872 Mining Law along with Good Samaritan legislation can help us not only clean up the mistakes of the past, but also chart a sustainable path forward by establishing a funding stream for remediation, removing liability barriers for Good Samaritans to clean up abandoned mines, and providing land managers with the discretion to balance new mining operations with all the other multiple uses provided by our public lands.

Thank you for the opportunity to testify today. Trout Unlimited appreciates the leadership of this committee to seek solutions that bring stakeholders together and make a difference for the environment and communities around the country.