

March 15, 2018

**Testimony of David Strohmaier, County Commissioner, Missoula County, MT,
Before the House Subcommittee on Energy and Mineral Resources Oversight
Hearing On “Abandoned Hardrock Mines and the Role of Non-Governmental
Entities”**

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 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 clean ups 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 dollars to the local community (with \$900,000 garnered in 2018 and 2019 alone), restoring almost three miles of the main stem of Ninemile Creek, and connecting eight major tributaries.¹⁰ Due

to the completed and on-going 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 clean-up project illustrates that, with a proper funding source, we can make progress.¹¹

There's more work to do, though. Another three 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 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 clean-up projects are complex and costly, with multiple government agencies involved in trying to cobble funding together for a single clean-up 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 Clean Up

Abandoned mine clean-up 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 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 US 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 clean-up 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.

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

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

³ U.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>.

⁴ U.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>.

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

⁶ Bozeman 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-ffbf454fe07d.html.

⁷ Montana Bureau of Mines and Geology, abandoned and inactive mine database, available at:

<http://data.mbmq.mtech.edu/3D/DataViewer.asp?Database=2&focus=Menu&getby=CN T&>

⁸ Montana 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.

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

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

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

¹² Paul Parson, P.E., Trout Unlimited, personal communication via email, March 12, 2018.

¹³ John DeArment, Staff Scientist, Clark Fork Coalition, personal communication via email, 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>.

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.