

## **Public Lands Foundation Position Statement**

### **BLM's ABANDONED MINE LANDS PROGRAM**

**June 1, 2016  
PLF 2016-01**

#### **Executive Summary**

The Public Lands Foundation (PLF) has developed this paper to identify and communicate concerns about the Bureau of Land Management's (BLM) Abandoned Mine Lands (AML) program. Based on publicly available information, discussions with the BLM, and other cited data, the PLF has identified nine issues related directly to the BLM's AML program funding and implementation that are of concern, and one issue related to coal mining on federal lands that has the potential to develop into a major problem for the American taxpayer. Our overarching concern is that by the BLM's own estimates, the AML workload far exceeds current funding levels to the point where it will take decades, maybe even a century, to clean up and remediate all of the AML sites in the BLM's inventory. The PLF identified concerns about the AML program. As a result, the PLF is establishing positions and making specific recommendations in these areas:

- ❖ Coal mining on Federal lands;
- ❖ Adequacy of AML Program Funding;
- ❖ Adequacy of AML Program Field Staff;
- ❖ Increasing size of BLM's AML Inventory;
- ❖ Availability of AML Inventory Data;
- ❖ Coordination with Mining Claimants and Potentially Responsible Parties;
- ❖ Watershed Risks;
- ❖ Proposed Hardrock Mining Fund;
- ❖ "Good Samaritan" Legislation; and
- ❖ Reform of Hardrock Mining on Federal Lands.

#### **Background**

For an excellent overview about AML problems, their safety and environmental risks, how risks are addressed and information about federal, state and tribal AML programs, visit <http://www.abandonedmines.gov>, and for information about the BLM's AML program visit [http://www.blm.gov/wo/st/en/prog/more/Abandoned\\_Mine\\_Lands.html](http://www.blm.gov/wo/st/en/prog/more/Abandoned_Mine_Lands.html).

#### **Abandoned Hardrock Mines**

The BLM's AML program's primary objective is to eliminate or minimize the environmental impacts and the physical safety hazards associated with historic hardrock mining activity within the National System of Public Lands (NSPL). The AML program addresses mine sites that were abandoned prior to January 1, 1981, the effective date of the BLM's surface management regulations (43 CFR Subpart 3809). Post-January 1, 1981 mines that close without adequate reclamation are addressed under the BLM's Solid Minerals program. The BLM maintains an inventory database of its AML sites and specific mining features (e.g., adits, shafts, waste rock

dumps). There are currently 50,500 AML sites associated with 94,000 features in the database.<sup>1</sup> Approximately 20% of the sites have either been remediated, have reclamation actions planned or underway, or do not require further action. The remaining 80% require further investigation and/or remediation. As of December 2015, the BLM has completed cleanup or remediation at 5,759 sites and determined no further action is needed at 4,225 sites.<sup>2</sup> While there are AML's in every state within NSPL, the majority of sites in need of further analysis are in Arizona, Colorado, Nevada, and New Mexico. Nearly 97% of all AML sites in the inventory involve physical safety hazards.

The AML program received its initial funding in the late 1990s largely as part of broader clean water initiatives. After several initial pilot years, the program expanded bureauwide. However, for many years, appropriations continued to be tied to water quality objectives. Other programs, such as the Hazardous Materials Management program, contributed funds towards addressing physical safety hazards. Subsequent to an Office of Inspector General program audit and recommendation, the AML program is now funded under its own subactivity. Funding comes from tax dollars through annual appropriations to the BLM and the Department of the Interior (DOI). The BLM is receiving \$20 million annually, of which \$2.8 million is Congressionally designated for cleanup of the Red Devil Mine in Alaska. In addition, the BLM competes for and receives \$3 - \$3.5 million annually from the DOI's Central Hazardous Materials Fund to remediate major environmental AML sites under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The BLM received a one-time appropriation under the American Recovery and Reinvestment Act of 2009 (ARRA) of just under \$30 million. Those monies have been spent. The AML program is supported by 75 FTE. Most of the FTE at the Field Office level handle AML as a collateral duty, often serving 3-4 programs (e.g., Hazmat, Surface Management, and Hydrology).

A core component of the BLM AML program's administration is to rely where possible on partnerships to leverage funds towards AML site cleanup and remediation. For example, watershed AML projects often traverse public and private lands, and multiple land management and AML agencies (federal and state) may leverage funds to address water pollution stemming from AML sites. Similarly, AML inventory work and collaboration on physical safety AML hazard cleanup often involves partnership efforts. As an example, the BLM and the State of Nevada have established a long-term partnership effort to fund such work.

Between 2009 and 2015, the BLM remediated 7,400 physical safety hazards and restored water quality on 10,200 acres. The BLM also monitored and maintained 6,355 former AML sites. During this same period, 34,466 AML sites were added to the BLM's AML inventory database.<sup>3</sup>

### **Abandoned Coal Mines**

Abandoned coal mines on BLM-managed lands are addressed by the OSM and its state government partners under authority of the Surface Mining Control and Reclamation Act (SMCRA). Coal AML projects are funded through grants from the OSM to state and tribal agencies with approved reclamation programs. Since enactment of SMCRA in 1977, the coal

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<sup>1</sup> BLM FY 2017 Budget Justifications, Page VII-156.

<sup>2</sup> Data provided by the BLM.

<sup>3</sup> Data provided by the BLM.

AML program has collected over \$10.5 billion in fees from present-day coal production and distributed more than \$8.0 billion in grants to states and tribes, mandatory distributions to the United Mine Workers of America (UMWA) retiree health and pension plans and to the OSM's operation of the national program to reclaim land and waters damaged by coal mining before the law's passage. Despite remarkable achievements, more than \$4 billion worth of high priority health and safety coal-related abandoned sites remain in the OSM's e-AMLIS (electronic Abandoned Mine Lands Inventory System) inventory.<sup>4</sup> According to the OSM's inventory database, there are 68 coal AML sites still in need of funding to begin reclamation that are located at least in part within the NSPL. Fifty are in Wyoming, and the remainder is split between Colorado, New Mexico and Utah. The estimated cost to reclaim these mines is just under \$3.8 million.<sup>5</sup> There are additional coal AMLs that are in various stages of funding and reclamation.

### **Abandoned Uranium Mines**

The Department of Energy (DOE) released a report in 2014 on defense-related uranium mines. The DOE identified abandoned uranium mines from which uranium ore was extracted for atomic energy defense-related activities of the United States from 1947 to 1970. The DOE determined that 4,225 mines provided uranium ore to the Atomic Energy Commission from 1947 to 1970. Of the 4,225 mines identified, the reclamation or remediation status of approximately 85 percent (3,575) is unknown. Only 15 percent (614) of the mines could be confirmed to have had some form of reclamation or remediation completed, while only 1 percent (36) had mining permits and are not abandoned. Most abandoned uranium mines are located in Arizona, Colorado, New Mexico, Utah and Wyoming, and nearly one-half, or 2,103, of abandoned uranium mines are located on BLM-managed land.<sup>6</sup> The PLF does not know to what extent these 2,103 sites are in the BLM's AML inventory, and recommends that the BLM confirm that these sites are accounted for in its AML database.

The BLM AML program addresses abandoned uranium mines. The BLM is currently working with the DOE and the Environmental Protection Agency (EPA) to share resources to address defense related abandoned uranium mines located within NSPL.<sup>7</sup>

## **Discussion**

**Coal mining on Federal lands.** While not directly related to the BLM's AML program, there is an issue of concern to the BLM and the OSM regarding the potential for future possibility of more abandoned coal mines. Under the current energy market, several major coal mining companies are on the brink of bankruptcy, and several have already declared bankruptcy. Under SMCRA, coal miners must post a performance bond that guarantees sufficient funds to reclaim the mine site in the event of insolvency. However, there is concern about the form of many of these bonds: self-bonding, as opposed to an insurance bond. Decreasing demand for coal by

<sup>4</sup> Data viewed on April 7, 2016 at: <http://www.osmre.gov/programs/AML.shtm>.

<sup>5</sup> Data obtained from the OSM's e-AMLIS on April 7, 2016.

<sup>6</sup> Defense-Related Uranium Mines, Report to Congress, U.S. Department of Energy, August 2014, p.4.

<sup>7</sup> BLM FY 2017 Budget Justifications, p. VII-157.

China coupled with lower energy costs associated with use of natural gas plus climate change initiatives have resulted in an economic downturn for the U.S. coal mining industry.<sup>8</sup> There is concern as to whether coal companies in such dire straits can realistically produce the necessary funds to reclaim their mines under a self-bonding method. If not, the taxpayer may be left holding the bag to cover the cleanup costs, similar to past hardrock miners such as ASARCO, Summitville Mine, and Zortman-Landusky. There has been recent interest by two U.S. Senators on potential problems caused by self-bonding.<sup>9</sup>

In addition to preventing future abandoned coal mines, the BLM should work with the OSM and the state AML agencies to reclaim the abandoned coal mines located within the NSPL that are in the OSM's inventory while SMCRA-based funding remains available. Since the BLM's AML appropriations are restricted to abandoned hardrock mines, the BLM may need to consider offering incentives from other programs in negotiations with the OSM and the state AML agencies.

**Adequacy of AML Program Funding.** In 2013, the BLM released a report entitled "Feasibility Study for AML Inventory Validation and Physical Safety Closures."<sup>10</sup> The BLM uses AML appropriations for a range of activities, including AML site validation, NEPA/CERCLA studies, remedy design and construction, actual remediation of site conditions, and monitoring and maintenance of completed work. The BLM stated in its report that it estimates the total cost of inventory and remediation activities at 22,104 AML sites that pose solely physical safety hazards to be \$402.6 million.<sup>11</sup> No similar report is available for estimating the associated costs and time needed to remediate environmental AML sites. Clearly, at current appropriation levels it will take decades –perhaps over a century– to complete the cleanup of just the physical safety hazard sites, let alone the costlier and complex environmental sites (especially those posing water quality problems that may require perpetual treatment given the current state of technology).

The BLM AML program and the DOI Central Hazardous Materials Fund are coming under increased pressure from recent and likely Superfund designations of AML sites. On April 7, 2016, the EPA proposed for listing in the National Priorities List (NPL) for Superfund the Bonita Peak Mining District (including the infamous Gold King Mine, see below), which would include

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<sup>8</sup> Can coal companies afford to clean up coal country?, The Washington Post, April 2, 2016, viewed on April 7, 2016 at: [https://www.washingtonpost.com/business/economy/can-coal-companies-afford-to-clean-up-coal-country/2016/04/01/c175570c-ec73-11e5-a6f3-21ccdbc5f74e\\_story.html](https://www.washingtonpost.com/business/economy/can-coal-companies-afford-to-clean-up-coal-country/2016/04/01/c175570c-ec73-11e5-a6f3-21ccdbc5f74e_story.html)

<sup>9</sup> "Coal Self Bonding in Senators' Cross Hairs, Western Organization of Resource Councils, <http://www.worc.org/coal-self-bonding-in-senators-cross-hairs/> as viewed on May 7, 2016.

<sup>10</sup> Available for download at: [http://www.blm.gov/style/medialib/blm/wo/MINERALS\\_REALTY\\_AND\\_RESOURCE\\_PROTECTION\\_/aml/aml\\_documents.Par.86129.File.dat/AML%20FeasibilityStudy\\_PSH.pdf](http://www.blm.gov/style/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/aml/aml_documents.Par.86129.File.dat/AML%20FeasibilityStudy_PSH.pdf)

<sup>11</sup> In a supplemental report issued in 2014, "Abandoned Mine Land Inventory Study for BLM-Managed Lands in California, Nevada, and Utah: Site and Feature Analysis," the BLM estimated it will require approximately \$212 million to field validate the estimated remaining AML sites in California, Nevada, and Utah. Further, the BLM estimated it would require 2,625 work months to accomplish the validation work based on high-quality mine symbol datasets. The workload distributed over 10 two-person field crews would require approximately 20 years to complete.

10-12 hardrock AMLs on BLM-managed land. Another major AML site, the Yerington Mine in Nevada was recently proposed for listing on the NPL.<sup>12 13</sup>

Exactly what the listings will mean for the BLM and the DOI have yet to be determined. In the past, the EPA has funded the cleanups under CERCLA and in some cases has sought to recover costs from the federal land management agencies. Such an approach would consume the entire BLM AML appropriation for one mega cleanup such as Yerington for years to come, leaving other activities and projects in abeyance. The PLF urges that the BLM work to partner with the EPA and leverage its limited funds where possible.

The BLM also alerted the Congress in its FY 2017 budget justification about the impact of increased monitoring and maintenance activities. Increased productivity in site cleanup and remediation directly result in corresponding time and costs associated with monitoring and maintenance, particularly of water treatment activities. As of December 2015, 807 AML sites were undergoing monitoring and maintenance.

#### **Adequacy of AML Program Field Office Staff**

The AML staff at the Washington Office comprises two FTE, and one of the FTE will be abolished once the position is vacated. Most State Offices have either an AML program lead or a combination AML-Hazmat program lead. At the field office level, most AML leads are not only collateral duty-charged, but also juggle three or four programs. In some offices, there is no AML lead where there needs to be one. For example, in the Tres Rios Field Office at Dolores, CO near where the Gold King mine and several adjacent AML sites on public land have been proposed for Superfund listing, there needs to be a BLM AML program lead for such a large-scale and high-profile situation.

**Increasing size of the BLM's AML Inventory.** The BLM AML inventory continues to grow. In 2008, the BLM had identified 19,000 AML sites. That figure grew to 28,000 by 2011 and is currently at 50,500.<sup>14</sup> The BLM's budget request for FY 2017 projects 5,000 sites will be added to the inventory database during the upcoming fiscal year. The costs and FTE associated with this increase is troublesome in that it reflects a high priority by the BLM that appears to be excessive given all it knows about the remaining work to be done on sites already in the inventory. Granted, audit agencies have expressed concerns about the completeness of the inventory and the accuracy and currency of the BLM's inventory data. The PLF is concerned that too much emphasis is being given to growing the inventory as opposed to addressing the current workload.

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<sup>12</sup> The Yerington Mine site is an abandoned copper mine site of mixed surface land ownership, with approximately 51 percent privately owned by Arimetco Inc. and 49 percent public land managed by the Bureau of Land Management (BLM). Arimetco filed for bankruptcy in 1997. In December 2004, the Nevada Governor asked the Environmental Protection Agency (EPA) to assume lead agency responsibilities at the site under a CERCLA 106 order. The BLM continues to coordinate with EPA, the lead agency for CERCLA activities at the site, and with the Nevada Division of Environmental Protection (NDEP) to complete characterization and remediation of the site. See: [http://www.blm.gov/nv/st/en/prog/minerals/hazmat/yerington\\_mine\\_site.html](http://www.blm.gov/nv/st/en/prog/minerals/hazmat/yerington_mine_site.html)

<sup>13</sup> <http://www.rgj.com/story/news/2016/03/29/superfund-national-priority-list-decision-anaconda-copper-mine-nevada/82388660/>

<sup>14</sup> Abandoned Mines: A New Legacy, BLM, 2013, p.8.

**Availability of AML Inventory Data.** The PLF is aware that, in the past, the BLM and its partnering federal and state AML agencies made available online to the public a National AML Inventory map with clickable data showing the names of AML sites. In addition, for the BLM’s data, the map that was on the GeoCommunicator site also indicated the status of the site (unremediated, in progress, completed). The database and map were subsequently removed in the FY 2009/2010 timeframe. The PLF believes that the BLM and its partners should reconsider making such information available in the future to the public in the most useful way feasible, while avoiding making too much locality data available to those who would misuse the data for site visitation. We note that the OSM, the EPA and many states are currently providing such information in their own way using GIS, standard data reports and other online means, and urge the BLM to do so. The PLF maintains there is a public interest in having such transparency and accountability for a program that has now expended hundreds of millions of taxpayer dollars.

**Coordination with Mining Claimants and Potentially Responsible Parties.** Nearly every AML site sits on one or multiple mining claims. The BLM’s Solid Minerals and AML programs, have, in the past, initiated requests to mining claimants that they assist the BLM in addressing physical safety hazards on AML sites located on their claims. Granted, such work is voluntary, but it benefits both the claimant and the BLM to help reduce potential accidents, injuries and tort claims. In addition, there is a “Fix A Shaft Today!” award hosted by the Solid Minerals program for work done on private lands adjacent to public lands. The PLF urges that the BLM continue to pursue such liability-reducing actions.

Similarly, on the environmental side, the “polluter pays principle” under CERCLA and the Clean Water Act (CWA) need to have appropriate attention from the BLM and the Office of the Solicitor, DOI. Identifying potentially responsible parties (PRPs) who are viable enough to pay for or otherwise contribute to cleanup costs at environmental AML sites is tantamount to addressing site remediation while concurrently reducing costs to the taxpayer. There is insufficient information available to the PLF to assess to what extent the BLM is adequately using such cost avoidance/cost recovery authorities under its AML program.

**Watershed Risks.** On August 5, 2015, the EPA was conducting an investigation of the Gold King Mine near Silverton, Colorado, to assess the on-going water releases from the mine, treat mine water, and assess the feasibility of further mine remediation. While excavating above the old mine adit, pressurized water began leaking above the adit. The pressurized water resulted in the spillage of about three million gallons of water backed up behind collapsed material in the adit into Cement Creek, a tributary of the Animas River.<sup>15</sup> Subsequent to the Gold King incident, the BLM assessed its inventory and field staff to identify whether it had similar sites to Gold King where such a water discharge could potentially occur. Some 105 potential sites were identified, seven of which need immediate attention.<sup>16</sup> In addition, sites such as Caselton Tailings which could potentially drain into Lake Mead in the event of a flash flood should be considered in this group. The PLF urges that BLM assess and address these sites as one of the highest priorities for AML work.

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<sup>15</sup> <https://www.epa.gov/goldkingmine>

<sup>16</sup> Discussion between national BLM AML Program Lead and the PLF on March 17, 2016.

**Proposed Hardrock Mining Fund.** The Obama Administration continues to propose establishing a hardrock AML fund similar to the SMCRA-based trust fund and fee established to address abandoned coal mines.<sup>17</sup> This proposal has been made repeatedly over the last several years and has not been acted upon by the Congress. It is doubtful that any action will take place in this election year.

**“Good Samaritan” Legislation.** “Good Samaritan” legislation has been introduced, but never passed, by succeeding Congresses since 1999.<sup>18</sup> Under various versions of Good Samaritan legislation, federal agencies, states, tribes, mining companies and other organizations would be allowed to undertake environmental cleanup work at AML sites without risking the liabilities that would otherwise be attached under CERCLA or the CWA. While sounding good in concept, such legislation –if enacted– would likely yield a small number of AML cleanups. An additional concern of such legislation is that mining companies may take advantage of the legislation to perform incomplete reclamation of AML sites.

**Proposed Reform of Hardrock Mining on Federal Lands.** The Obama Administration has proposed instituting a leasing program under the Mineral Leasing Act of 1920 for certain hardrock minerals, including gold, silver, lead, zinc, copper, uranium, and molybdenum, currently covered by the General Mining Law of 1872 and administered by the BLM. After enactment, mining for these metals on federal lands will be governed by the new leasing process and subject to annual rental payments and a royalty of not less than five percent of gross proceeds. However, as proposed, none of the receipts are designated to fund AML activities; rather, half of the receipts will be distributed to the states in which the leases are located and the remaining half will be deposited in the U.S. Treasury.<sup>19</sup> The PLF recommends that the Administration reconsider using at least part of the receipts to fund federal hardrock AML programs, such as the BLM’s AML program.

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<sup>17</sup> Hardrock Abandoned Mine Land Fund – To provide additional resources for the reclamation of abandoned hardrock mines, the 2017 budget proposes a new AML fee on hardrock production. Just as the coal industry is held responsible for abandoned coal sites, the Administration proposes to hold the hardrock mining industry responsible for the remediation of abandoned hardrock mines. The legislative proposal will levy an AML fee on uranium and metallic mines on both public and private lands. The proposed AML fee on the production of hardrock minerals will be charged on the volume of material displaced after January 1, 2017. The receipts would be split between Federal and non-Federal lands. The Secretary will disperse the share of non-Federal funds to each State and Tribe based on need. Each State and Tribe will select its own priority projects using established national criteria. The proposed hardrock AML fee and reclamation program will operate in parallel with the coal AML reclamation program as part of a larger effort to ensure the Nation’s most dangerous abandoned coal and hardrock AML sites are addressed by the industries that created the problems. BLM Budget Justification for FY 2017, p. II-10.

<sup>18</sup> Cleanup at Inactive and Abandoned Mines: Issues in “Good Samaritan” Legislation in the 114<sup>th</sup> Congress, Congressional Research Service, Claudia Copeland, November 25, 2015.

<sup>19</sup> BLM FY 2017 Budget Justifications, p. II-9.



## **Public Lands Foundation Position**

The PLF recommends the following actions for consideration by the BLM. In so doing, the PLF recognizes that some positions and recommendations involve Administration support and Congressional action:

- ❖ **Coal mining on Federal lands.** The BLM should, if not already doing so, enter into discussions with the OSM on the adequacy of self-bonding for coal mining companies operating on federal lands to develop contingency plans in the event of potentially catastrophic reclamation bond inadequacies. In addition, the BLM should work with the OSM and the SMCRA-funded states to reclaim the abandoned coal mines listed in the OSM's inventory.
- ❖ **Adequacy of AML Program Funding.** Clearly, current workload versus appropriation levels leaves a significant void. In addition to its annual operational plans, the BLM once had a strategic plan that laid out its priorities over several years. The PLF recommends that the BLM again develop such a plan. The PLF urges the BLM to be as aggressive as possible to secure the requisite additional funding needed to complete its highest priority work.
- ❖ **Adequacy of AML Program Field Staff.** The PLF recommends that the BLM conduct a workload analysis to identify where major AML workloads exist and to address them with full-time AML staff wherever possible. In so doing, the BLM should consider use of temporary and term appointments for project-specific work over several years. Where not possible, the BLM should push for greater partnerships with state AML agencies that may be capable of carrying out the work at a lower cost.
- ❖ **Increasing size of the BLM's AML Inventory.** The PLF is concerned that too much emphasis is being directed by the BLM to inventory work that results in adding sites to the database. Instead, the PLF recommends that the BLM limit and direct its inventory work to high priority areas near populated places, high use/visitation areas, and threats to natural resources consistent with land use planning. At this point, the largest and highest priority sites should be well known and are ready for cleanup.
- ❖ **Availability of AML Inventory Data.** The PLF urges the BLM and its partners, in the spirit of transparency and accountability to the public, to once again make AML inventory information and data available to the public.
- ❖ **Coordination with Mining Claimants and Potentially Responsible Parties.** The PLF urges the BLM and the Office of the Solicitor to renew its efforts to avoid and contain costs and potential liabilities by ensuring appropriate coordination of AML program goals with mining claimants and by aggressively implementing the "polluter pays" principle wherever possible. The PLF also urges the BLM and the Office of the Solicitor to report its activities to the extent possible on both of these efforts.



- ❖ **Watershed Risks.** The PLF urges the BLM to conduct a risk assessment to determine what immediate actions should be taken at the seven identified AML sites posing a potential water discharge, and develop a monitoring program for the remaining 98 potential problem AML sites. The information about these sites should be made available to the public under the Obama Administration’s transparency goals.
- ❖ **Proposed Hardrock Mining Fund.** The PLF supports the Administration’s initiative and similar initiatives to establish a hardrock mining fund paid for by the industry. The PLF notes that such a fund would likely diminish, if not eliminate, current AML program funding from tax dollar appropriations if past guidance from Congressional staff were to continue to hold. The PLF urges the BLM to work to ensure that, at a minimum, such proposals will enable the BLM to maintain current funding levels.
- ❖ **Good Samaritan” Legislation.** The PLF supports Good Samaritan initiatives but cautions that they are no substitute for full-fledged and adequately funded AML programs.
- ❖ **Reform of Hardrock Mining on Federal Lands.** The PLF supports instituting a leasing program for certain hardrock minerals and designating at least part of the receipts for funding hardrock AML programs, such as the BLM’s AML program.