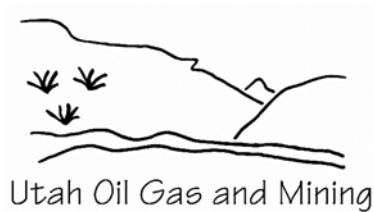


**ANNUAL SUMMARY EVALUATION REPORT**  
**of the**  
**COLORADO – UTAH ABANDONED MINE LAND REVIEW TEAM**  
**for the**  
**UTAH ABANDONED MINE RECLAMATION PROGRAM**  
**for**  
**EVALUATION YEAR 2002**

(October 1, 2001, through September 30, 2002)



November 29, 2002

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## ACRONYMS

AML	Abandoned Mine Lands
AMLIS	Abandoned Mine Land Inventory System
AMR	Abandoned Mine Reclamation
BLM	Bureau of Land Management (of the U.S. Dept. of the Interior)
CIMRP	Colorado Inactive Mine Reclamation Program
DFD	Denver Field Division (of OSM)
DOG M	Utah Division of Oil, Gas and Mining
EPA	United States Environmental Protection Agency
MSHA	Mine Safety and Health Administration (of the U.S. Dept. of Labor)
OSM	Office of Surface Mining (of the U.S. Dept. of the Interior)
SMCRA	Surface Mining Control and Reclamation Act of 1977, as amended
USFS	Forest Service (of the U.S. Dept. of Agriculture)

## I. Introduction

Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA or “the Act”) established the Abandoned Mine Reclamation Fund. The primary purpose of the fund is to mitigate the effects of past mining. The Office of Surface Mining Reclamation and Enforcement (OSM) administers the Abandoned Mine Reclamation Fund on behalf of the Secretary of the Interior. OSM awards grants to States and Tribes from the Fund to reclaim abandoned mines and to pay their administration costs. The program puts the highest priority on correcting the most serious abandoned mine land (AML) problems endangering public health, safety, general welfare, and property. OSM and State and Tribal AML programs work together to achieve the goals of the national program. OSM also works cooperatively with the States and Tribes to monitor their AML programs.

Directive AML-22 generally describes how OSM evaluates State and Tribal AML reclamation programs. It calls such evaluations AML “enhancement and performance reviews.” A team of State and Federal personnel, called the Colorado-Utah AML Review Team, has been completing these reviews of the Utah Abandoned Mine Reclamation (AMR) Program and the Colorado Inactive Mine Reclamation Program (CIMRP) since it was first formed in January 1996. The team includes representatives of the Utah AMR Program, CIMRP, and OSM’s Denver Field Division (DFD). Members of the team during the 2002 evaluation period included: Frank Atencio, Grants Management Specialist, OSM-DFD; Dave Bucknam, CIMRP Supervisor; Mark Mesch, Administrator, Utah AMR Program; and Ron Sassaman, Environmental Protection Specialist, OSM-DFD. This report summarizes our review and evaluation of the Utah AMR Program for evaluation year 2002. That year spans the period of October 1, 2001, through September 30, 2002.

## II. General Information on the Utah Program

On June 3, 1983, the Secretary of the Interior approved Utah’s AML reclamation plan (“State Reclamation Plan”) under Title IV of SMCRA. That approval allows Utah to reclaim abandoned mines in the State in non-emergency AML projects. The AMR Program is part of the Division of Oil, Gas and Mining (DOGGM) in Utah’s Department of Natural Resources. It administers Utah’s program for abandoned mine reclamation under its approved Plan. The Denver Field Division of OSM’s Western Regional Coordinating Center works with the AMR Program to fund and approve AML projects in Utah and to evaluate AML reclamation and other aspects of the Program.

Section 405(f) of SMCRA authorizes State and Tribal AML programs to apply to OSM each year for a grant to support their programs and reclaim specific projects. Grants OSM awards to the Utah AMR Program are based on the State’s fiscal year, which is the period of July 1<sup>st</sup> through June 30<sup>th</sup>. Because the *evaluation year* (on which this report is based) includes the period of October of one year through September of the following year, Utah’s grants span parts of two successive evaluation periods. The

administration funding in those grants applies to a single year. Construction funding awarded in those grants is available for three years.

OSM awarded a total of \$1,935,622 to the Utah AMR Program in the 2001 grant. The 2001 grant funded nine positions and the Program's administrative activities. It also funded reclamation of two coal projects and one noncoal project and the Program's engineering, design, and other planning needs for five additional noncoal projects.

In Utah's 2002 grant, OSM awarded a total of \$1,736,309 to the AMR Program. That grant funded construction and related activities for one coal project and for coal and noncoal project maintenance. It also funded engineering, design, and various surveys needed to engineer one coal fires project and two noncoal projects. The 2002 grant funded the Program's administrative activities and staffing of eleven positions.

Appendices 1 and 2 show Utah's AML reclamation accomplishments and remaining reclamation needs based on data from the Abandoned Mine Land Inventory System (AMLIS).

Utah does not have OSM-approved subsidence insurance protection or emergency coal reclamation programs.

### III. Noteworthy Accomplishments

The Administrator of Utah's AMR Program received the Secretary of the Interior's Environmental Achievement Award for 2002. He received the award in recognition of his participation on the steering committees that developed two technical interactive forums on bat conservation and mining. The Administrator is a member of the team that performed the evaluations summarized in this report.

Utah's AMR Program hosted the 2002 conference of the National Association of Abandoned Mine Land Programs. The Association held its conference from September 15<sup>th</sup> through the 18<sup>th</sup> in Park City, Utah. Activities included tours of completed projects and an active copper mine as well as concurrent technical sessions and workshops. Program staff participated in all aspects of the conference. About 250 people attended the conference.

DOGM continued its efforts to increase public AML awareness and outreach while documenting Utah's mining heritage during this evaluation period. Once again, it printed 25,000 workbooks for fourth grade students describing Utah's mining heritage and dangers inherent to abandoned mines, and distributed them to public and private schools throughout the State. The Program worked with the State of Colorado and BLM to revise the AML safety video **Stay Out and Stay Alive**. Utah also participated in MSHA's 2002 **Stay Out – Stay Alive** Campaign and attended the Western Partner's Meeting held in Grand Junction in April 2002. During the year, the Program continued to work with the Utah Mining Heritage Alliance to develop an interpretive brochure highlighting the historical significance of different types of mining throughout Utah. AMR

Program staff presented AML project updates to the Emery County Public Lands Council and the Canyon Country Partnership.

The Program continued partnerships with a number of other agencies during this evaluation year. It worked cooperatively with the BLM, National Park Service, and the Forest Service to inventory abandoned mines on public lands they manage. It also performed contract administration and reclamation on the Cottonwood Wash noncoal project in cooperation with the BLM, Forest Service, and the Utah Division of Water Quality. Finally, it completed reclamation of two projects in the Glen Canyon National Recreation Area that the National Park Service funded.

We also note DOGM's continuing efforts to protect wildlife and wildlife habitat through AML reclamation. Utah continued its leadership role in the nationwide effort to protect bats and bat habitat by constructing specialized mine closures and funding ongoing studies of the effects of gated closures on bats. As part of that effort, the Program Administrator served on the steering committee for a technical interactive forum on bat gate design held in Austin, Texas in March 2002 and made presentations during that forum.

Staff with OSM's Technical Information Processing System (TIPS) program provided Global Positioning System (GPS) support and training to the Program on October 22 and 23, 2001. The training involved GPS-mapping of almost 350 tree seedlings planted on noncoal mine tailings near Alta, Utah for vigor evaluations. The AMR Program will conduct similar tree seedling mapping and vigor determinations at the Sunnyside Mine near Price, Utah. The Program completed a combined AML and bond forfeiture reclamation project at the Sunnyside Mine in mid-October 2000. That project won OSM's 2001 Western Region and People's Choice AML Reclamation Awards.

#### **IV. Results of Enhancement and Performance Reviews**

Our team signed the "Colorado-Utah AML Review Team Performance Agreement" on February 3, 1998. The performance agreement describes the team's purpose, team members' responsibilities, and three general principles of excellence that the team developed to review and evaluate the Colorado and Utah AML programs' performance. The agreement applied to the 1998, 1999, 2000, 2001, and 2002 evaluation years. We updated the agreement every year with current-year schedules and to describe the principles of excellence and performance measures we planned to review. We also updated the performance measures to specify any particular aspects of the programs that we plan to focus on. We updated the performance agreement for our 2002 reviews and evaluations in a team meeting on December 11, 2001. This performance agreement expired at the end of the 2002 evaluation year on September 30, 2002, and must be replaced in some form by a current agreement beginning with the 2003 evaluation year.

We emphasized on-the-ground or end-results when we developed the principles and measures in the agreement. Each general principle of excellence had one or more

specific performance measure(s). We decided which performance measures to review and evaluate in each year of the agreement. Performance measures described the following: Why we selected that topic; what the review population and sample sizes will be; how we will conduct the review and report the results; and our schedule for completing the review. The two principles of excellence, and the specific performance measures we chose for the 2002 review of the Utah AMR Program, are described below.

*Principle of Excellence 1:* The State's on-the-ground reclamation is successful.

- *Performance Measure (b):* Is reclamation successful on a long-term basis?

*Principle of Excellence 2:* The State must have systems to properly manage AML funds.

- *Performance Measure (g):* Do the State's procedures for managing set-aside funds support the intent of SMCRA?

Results of our 2002 reviews and evaluations are summarized below. These summaries are based on information we gathered. Our evaluations included field visits to AML projects, interviews with AMR Program and DOGM staff, and reviews of the AMR Program's project specifications, grant applications and reports, and internal State and AMLIS inventories. We described our review and evaluation results in much greater detail in enhancement and performance review reports that we wrote for each performance measure. Those reports are on file in OSM's Denver Field Division. This report, and the supporting enhancement and review reports, describe our 2002 reviews and evaluations of performance measures 1(b) and 3(g).

#### A. Summary Evaluation of Performance Measure 1(a)

This performance measure determined if Utah's reclamation is successful on a long-term basis. We selected this topic for a cyclical review in 2002 because reclamation success is an overriding goal of the AML program. For the purposes of this review, we defined "long-term" reclamation as a project Utah completed more than three years before the date of our revised performance agreement. The population for this review included all projects Utah completed prior to January 1999. Our review sample included four coal projects. Though we originally intended to visit all sites of each sample project (excluding some we visited recently), we were unable to do so.

Our team based its determination of long-term reclamation success on two factors. First, we determined if specific measures Utah prescribed in its project specifications to abate hazards were intact and functional. Second, we determined if Utah's reclamation continued to improve restored areas over their previously abandoned condition. In that context, especially concerning waste piles, we generally considered how well vegetation was growing, if it included desirable species, and if erosion appeared to be a problem. If problems were evident, we determined if they were described in the project

specifications, if they occurred since DOGM completed reclamation, if they were hazardous or not, and if maintenance was needed to correct them. We did not statistically analyze our observations.

We concluded that long-term reclamation of the sites we visited was successful overall. At the same time, we found that DOGM needs to perform maintenance on four problems that we considered hazardous and should consider it in a fifth location. The age of reclamation we observed varied. Utah reclaimed priority 2 and 3 problems at the four projects we viewed about 4, 5.9, 11.6, and 14.8 years ago. In terms of Abandoned Mine Land Inventory System (AMLIS) keywords, priority two problems originally found at the projects we visited included: Vertical openings; portals; dangerous piles and embankments; hazardous equipment and facilities; and dangerous highwalls. Priority 3 problems originally found at these projects included: Gob; benches; haulroads; highwalls; and equipment and facilities.

Our team evaluated 39 portal closures in the four sample projects. Those closures included backfills over stone or block walls, backfills only, a native stone wall, and a concrete plug in a corrugated metal pipe. Of those 39 closures, 37 (95 percent) were intact and functional. Both of the remaining two closures had problems related to settling of the backfill material. We found one of those problems to be hazardous and the other to be potentially hazardous. We also found a new potentially hazardous opening near one of Utah's constructed closures. In addition, we viewed three portal closures that pre-dated Utah's approved program. Of those, two were intact and functional. The third closure settled and created a hazard by accessing the underground workings.

We also empirically evaluated DOGM's reclamation of 15 coal waste piles. Reclamation techniques we saw included planting shrub tubelings on slopes where coal waste was removed and waste removal, topsoiling, and seeding, with waste buried onsite or in disposal areas. Of the 15 waste piles, 12 appeared to support good or better vegetative growth. The three remaining piles supported sparse vegetative cover. Despite the varying extent of vegetative cover, we did not note significant erosion problems at any of the 15 reclaimed waste piles. Shrub growth was excellent on several of the reclaimed waste piles. In most locations, revegetation consisted mostly of desirable species. Based on our observations, we found that DOGM's waste pile reclamation continued to improve sites' condition over their previously unreclaimed condition.

During our field review, we also noted Utah's demolition of four structures. In those cases, the State piled the materials in place in accordance with project specifications.

We concluded overall that DOGM's reclamation was successful on a long-term basis. We reached this conclusion despite the few cases where backfilled material had settled at portal closures or where revegetation of coal waste piles was sparse. We reasoned that, by closing mine openings and removing, burying, and revegetating coal waste material, DOGM removed public safety hazards and reduced environmental problems.

By their very nature, those hazards and problems made the land unsafe and/or less suitable for use by people and wildlife. By reestablishing shrubs and grasses, promoting surface water control and retention, and improving wildlife habitat, DOGM restored natural resource values to reclaimed abandoned mine lands and improved them compared to the unreclaimed condition they previously were left in.

We recommended that DOGM schedule and perform maintenance to address the problems described above that we found were hazardous or potentially hazardous. We also recommended that DOGM consider including small openings near the brow of two backfill closures in maintenance work it already scheduled for this year to prevent them from becoming hazardous.

#### B. Summary Evaluation of Performance Measure 3(g)

Though our team evaluated various aspects of grants financial management for Utah's program in previous years, this was the first time we evaluated how the State manages its set-aside funds to support the intent of SMCRA. To conduct our review, we met with DOGM staff who have administrative record keeping responsibilities for Utah's set-aside fund account. Also, we looked at how the fund is identified and kept separate from other State accounts. We reviewed Combined Balance Sheet 746 for fiscal year 2002 and the State Treasurer's, Investment Fund Transfers' – Deposits & Adjustment Account, which provides a summary of the Abandoned Mine – Set Aside Fund, from its inception to the time of our evaluation. We focused on determining how this special trust fund is kept and if expenditures from this fund are consistent with the intent of title IV of SMCRA. In addition, we looked at the authority structure for approving expenditures from the set-aside fund account.

Monies OSM awarded to Utah for the set-aside fall into two categories. Those funds awarded to the State before October 1, 1991, and interest earned on those funds, may be used to accomplish the purposes of title IV after August 3, 1992. As such, Utah may use this money to address abandoned coal and non-coal mine problems. Set-aside funds awarded to Utah after October 1, 1992, may be used only to address priority 1 and 2 abandoned coal mine problems after September 30, 1995.

Utah keeps its pre and post 1991 set-aside money in separate sub-accounts in a special set-aside fund. Each sub-account is kept separate and distinct within the fund and on the State's balance sheets. The State keeps a comprehensive record of all deposits, withdrawals and balances for those two sub-accounts.

Section 40-10-25.1 of the Utah Code Annotated governs this established set-aside fund. DOGM interprets those provisions to mean money in the set-aside fund will only be used to reclaim abandoned mine lands when Federal AML funding ends. If DOGM wanted to use money in the set-aside fund, it would have to submit planned expenditures from that fund through the regular State budget process a year in advance, culminating in legislative appropriations. DOGM management looks at



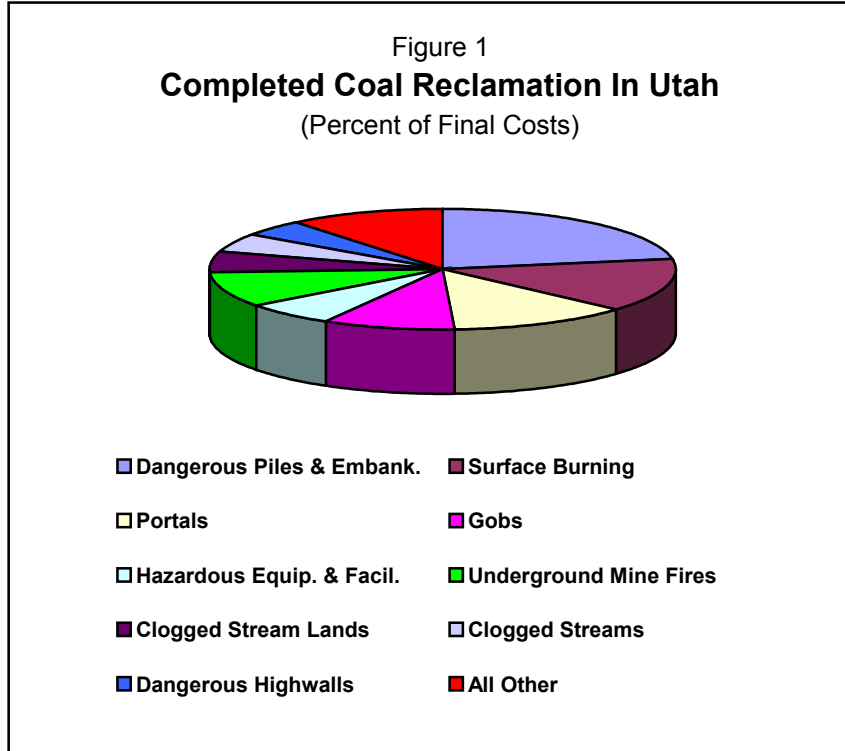
monthly balance sheets to ensure that funds are being properly credited and shares this information with members of the Utah Board of Oil, Gas and Mining. The Board in turn, oversees DOGM's budget and its AMLR Program.

The team found that DOGM had not expended any money from either sub-account in its set-aside fund at the time of our evaluation. We also found that Utah's fund is safeguarded by the manner in which it is administered through the State Treasurer's Office, the Board of Oil, Gas and Mining, and the State Legislature. Further, the Utah Code ensures that set-aside funds will only be used to accomplish the purposes of Title IV of SMCRA. We therefore concluded that the Utah Set-Aside Trust Fund is properly administered and protected consistent with OSM policy and guidelines for grants.

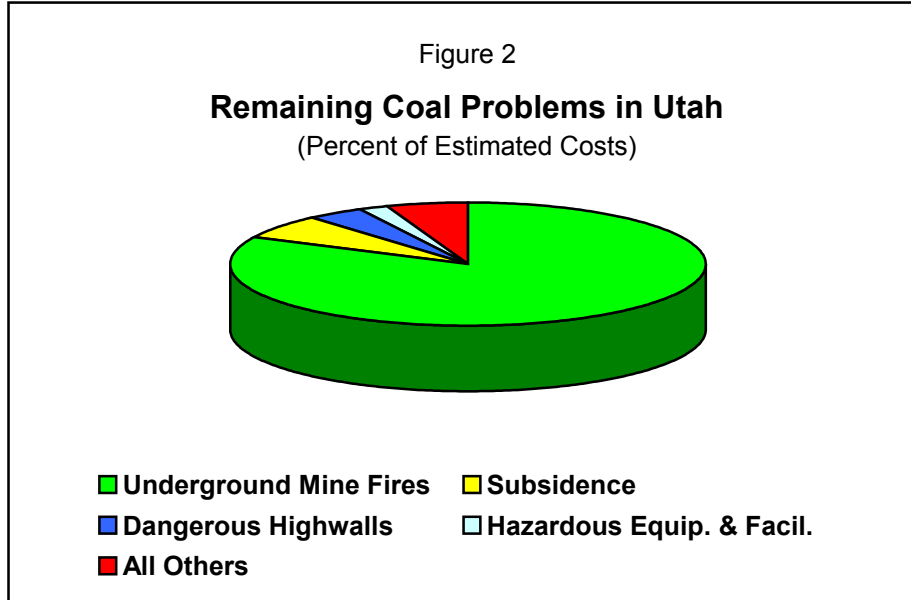
## **V. Accomplishments and Inventory Reports**

Appendices 1 and 2 list the abandoned coal and noncoal problems Utah included in AMLIS and how many of those problems the AMR Program reclaimed so far. They also show how much Utah's completed coal and noncoal reclamation cost. In addition, the appendices show the estimated reclamation costs of unreclaimed coal and noncoal problems in the State.

Title IV of SMCRA stresses reclamation of abandoned coal mine-related problems because the Abandoned Mine Reclamation Fund is generated by a fee assessed on coal produced by active mines. Utah reclaimed 49 coal projects from the time the Secretary approved its AMR Program to the end of the 2002 evaluation period and has funding to reclaim two more. Addressing nine types of AML problems required about 89.3 percent of the \$9.52 million-plus cost of reclaiming those coal projects. Those problem types include: Dangerous piles and embankments (22.2%); surface burning (14.4%); portals (12.7%); underground mine fires (9.5%); gobs (8.9%); hazardous equipment and facilities (6.4%); clogged stream lands (5.7%); clogged streams (4.8%); and dangerous highwalls (4.7%). These nine problem types combined to require most of Utah's completed coal reclamation costs in the 2001 evaluation year as well, though their respective percentages of the total cost varied slightly. Sixteen other types of problems make up the remaining 10.7 percent of the Utah AMR Program's completed abandoned coal mine reclamation. Figure 1 below shows the Program's reclamation of various problem types and how they compare to each other and all coal reclamation completed in Utah to date.



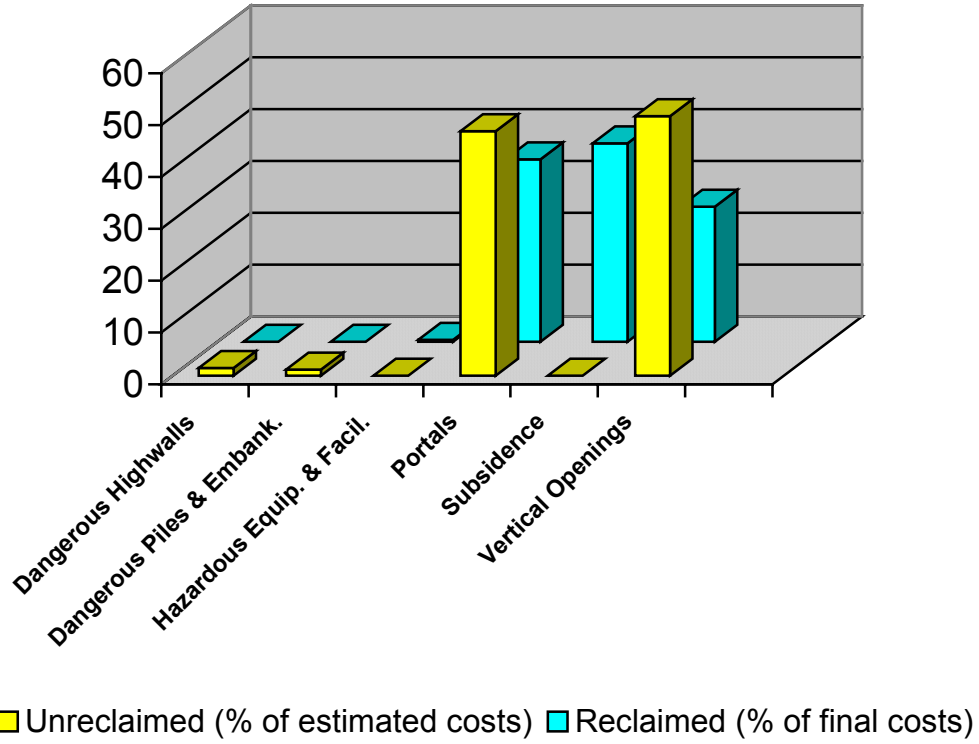
OSM continues to award grant funds to Utah to reclaim abandoned coal mines. While DOGM has made substantial progress toward addressing known coal problems in the State since the Secretary approved Utah’s program, the State has not yet certified under section 411(a) of SMCRA that it addressed all known abandoned coal mine problems within its borders. As Appendix 1 shows, over \$24.8 million in unreclaimed problems are included in the State’s inventory of coal hazards in AMLIS. This is a decrease of over \$765,000 in unreclaimed problems since the 2001 evaluation year. Approximately 94.4 percent of the estimated cost of unreclaimed problems is associated with five problems, including: Underground mine fires (82.1%); subsidence (6.4%); dangerous highwalls (3.9%); and hazardous and explosive gases (2%). The 2001 evaluation found that the same four problem types dominated Utah’s remaining coal reclamation needs at that time as well. Using a protocol developed specifically for fires, DOGM continued its Fires Engineering project in the 2002 evaluation year by monitoring nine abandoned underground coal mine fires throughout the State. OSM and States’ experience shows that subsidence and underground mine fires are two of the most expensive and technically difficult abandoned coal mine problems to effectively deal with. Figure 2 below further illustrates the scope of Utah’s remaining abandoned coal mine problems.



Appendix 2 summarizes the noncoal problems Utah inventoried and the State’s noncoal reclamation accomplishments. Despite the AMR Program’s efforts over the years to address the highest priority hazards, abandoned noncoal problems still number in the thousands and are found throughout the entire State. The Program estimates that about \$4.09 million are needed to reclaim the remaining noncoal hazards Utah inventoried in AMLIS, not including work already funded and uninventoried hazards. Portals, vertical openings, dangerous highwalls, and dangerous piles and embankments make up 100 percent of that estimated cost. Because these abandoned mine features are so numerous and widespread, many of them pose an immediate and extreme hazard to public health and safety. Urban sprawl, people moving to Utah from other States, increasing interest in historic mining districts and in outdoor recreation on public lands, and the trend for many winter sports to concentrate in historically mined areas (notably the 2002 Winter Olympics) combine to make abandoned noncoal mines and their attendant features increasingly hazardous.

The Utah AMR Program continues to respond to the noncoal threat by reclaiming high priority abandoned noncoal mine projects. To date, OSM has funded 30 noncoal projects in grants awarded to the AMR Program. The Program completed reclamation of 24 noncoal projects so far. Appendix 2 shows that Utah’s completed reclamation addressed dangerous piles and embankments, hazardous equipment and facilities, portals, subsidence, and vertical openings at a cost of over \$5.39 million. In terms of mine openings alone, the Utah AMR Program has closed over 2,769 portals and vertical shafts at abandoned noncoal mines. Figure 3 below illustrates the percentage each category of inventoried, unreclaimed noncoal problem comprises of Utah’s estimated unfunded reclamation costs. It also shows how much the Program’s completed reclamation of the same type of noncoal problems cost so far.

Figure 3  
**Utah Noncoal Problems and Reclamation**



## Appendix 1

### Utah Abandoned Mine Reclamation Program Coal Reclamation Accomplishments and Remaining Reclamation Needs\*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Bench	8 acres	\$12,500	0	0	4 acres	\$154,544	12 acres	\$167,044
Clogged Streams	0.2 mile	\$10,000	0	0	14.1 miles	\$455,376	14.3 miles	\$465,376
Clogged Stream Lands	11 acres	\$281,000	6 acres	\$525,000	9 acres	\$546,126	26 acres	\$1,352,126
Dangerous Highwalls	5,000 feet	\$970,000	0	0	3,425 feet	\$444,871	8,425 feet	\$1,414,871
Dangerous Impoundments	0	0	0	0	1 (count)	\$14,600	1(count)	\$14,600
Dangerous Piles & Embankments	6.7 acres	\$92,000	0	0	136 acres	\$2,113,096	142.7 acres	\$2,205,096
Dangerous Slides	1 acre	\$20,000	0	0	0	0	1 acre	\$20,000
Equipment & Facilities	12 (count)	\$19,300	0	0	64 (count)	\$47,850	76 (count)	\$67,150
Gases: Hazardous & Explosive	6 (count)	\$501,000	0	0	19 (count)	\$55,000	25 (count)	\$556,000
Gobs	64 acres	\$169,500	0	0	255 acres	\$846,349	319 acres	\$1,015,849
Highwall	0	0	0	0	550 feet	\$1	550 feet	\$1
Hazardous Equipment & Facilities	15 (count)	\$176,000	0	0	152 (count)	\$613,933	167 (count)	\$789,933
Haul Road	0.5 acre	\$5,000	0	0	3 acres	\$35,000	3.5 acres	\$40,000
Industrial / Residential Waste	5 acres	\$22,000	0	0	9 acres	\$76,800	14 acres	\$98,800
Portals	45 (count)	\$172,800	8 (count)	\$1	498 (count)	\$1,212,327	543 (count)	\$1,385,127
Pits	3 acres	\$900	0	0	8 acres	\$23,266	11 acres	\$24,166
Polluted Water: Agric. & Industrial	1 (count)	\$50,000	0	0	2 (count)	\$54,700	3 (count)	\$104,700
Subsidence	183 acres	\$1,575,000	1 acre	0	3 acres	\$104,739	187 acres	\$1,679,739
Spoil Area	28.3 acres	\$174,034	0	0	55 acres	\$264,484	83.3 acres	\$438,518
Surface Burning	8 acres	\$170,000	0	0	38.8 acres	\$1,368,636	46.8 acres	\$1,538,636
Slurry	0	0	0	0	1 acre	\$2,830	1 acre	\$2,830
Slump	7 acres	\$16,000	0	0	16 acres	\$24,143	23 acres	\$40,143
Underground Mine Fire	326 acres	\$20,365,071	10 acres	\$163,000	27 acres	\$903,277	363 acres	\$21,431,348
Vertical Openings	1 (count)	\$2,433	0	0	23 (count)	\$49,243	24 (count)	\$51,676
Water Problems	1.5 gal/min	\$4,500	0	0	20.3 gal/min	\$117,085	21.8 gal/min	\$121,585
<b>UTAH TOTAL COSTS</b>		<b>\$24,809,038</b>		<b>\$688,000</b>		<b>\$9,528,276</b>		<b>\$35,025,314</b>

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of 10/1/2002

NOTE: Completed cost of \$1 means that problem type was reclaimed incidental to reclamation of another problem type.

Appendix 2

Utah Abandoned Mine Reclamation Program  
**Non-Coal Reclamation Accomplishments and Remaining Reclamation Needs\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls	30 feet	\$60,000	0	0	0	0	30 feet	\$60,000
Dangerous Piles & Embankments	50 acres	\$50,000	0	0	1 acre	\$1,400	51 acres	\$51,400
Hazardous Equipment & Facilities	0	0	0	0	3 (count)	\$19,808	3 (count)	\$19,808
Portals	1,456 (count)	\$1,928,500	9 (count)	\$7,744	1,963 (count)	\$1,902,307	3,428 (count)	\$3,838,551
Subsidence	0	0	0	0	179.2 acres	\$2,066,050	179.2 acres	\$2,066,050
Vertical Openings	1,056 (count)	\$2,047,500	40 (count)	\$125,046	806 (count)	\$1,410,112	1,902 (count)	\$3,582,658
<b>UTAH TOTAL COSTS</b>		<b>\$4,086,000</b>		<b>\$437,790</b>		<b>\$5,399,677</b>		<b>\$9,618,467</b>

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of 10/1/2002

NOTE: Completed cost of \$1 means that problem type was reclaimed incidental to reclamation of another problem type.