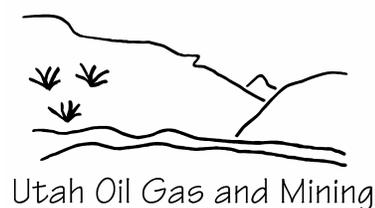


**ANNUAL SUMMARY EVALUATION REPORT**  
**of the**  
**COLORADO - UTAH ABANDONED MINE LAND REVIEW TEAM**  
**for the**  
**COLORADO INACTIVE MINE RECLAMATION PROGRAM**  
**for**  
**EVALUATION YEAR 2000**

(October 1, 1999 through September 30, 2000)



October 2000

## TABLE OF CONTENTS

I.	Introduction .....	1
II.	General Information on the Colorado Program .....	1
III.	Noteworthy Accomplishments .....	2
IV.	Results of Enhancement and Performance Reviews .....	4
V.	Accomplishments and Inventory Reports .....	7
Table 1		
	Coal AML Reclamation Accomplishments and Remaining Reclamation Needs . . . .	11
Table 2		
	Noncoal AML Reclamation Accomplishments and Remaining Redamation Needs . .	12

## ACRONYMS

AML - Abandoned Mine Land  
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 the Office of Surface Mining)  
DMG - Division of Minerals and Geology (of the Colorado Dept. of Natural Resources)  
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  
USFS - Forest Service (of the U.S. Department of Agriculture)

## I. INTRODUCTION

Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) 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 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 joint State/Federal team, called the Colorado-Utah AML Review Team, has been completing these reviews of the Colorado Inactive Mine Reclamation Program (CIMRP) and the Utah Abandoned Mine Reclamation (AMR) Program since its inception in January 1996. The team includes representatives of CIMRP, the Utah AMR Program, and OSM-DFD. Members of the team during the 2000 evaluation period included: Frank Atencio, Grants Management Specialist, OSM-DFD; Dave Bucknam, CIMRP Supervisor, Colorado DMG; Becky Doolittle, Senior Reclamation Specialist, Utah AMR Program; Jim Herron, Environmental Protection Specialist, CIMRP; Mark Mesch, Administrator, Utah AMR Program; and Ron Sassaman, Environmental Protection Specialist, OSM-DFD. This report summarizes the review we completed of Colorado's program in evaluation year 2000.

## II. GENERAL INFORMATION ON THE COLORADO PROGRAM

On June 11, 1982, the Secretary of the Interior approved Colorado's AML plan ( State Reclamation Plan ) under Title IV of the Surface Mining Control and Reclamation Act (SMCRA). This approval allows Colorado to reclaim abandoned mines in the State in non-emergency AML projects. CIMRP, of the Division of Minerals and Geology (DMG) in the Department of Natural Resources, administers Colorado's AML program. The Denver Field Division of OSM's Western Regional Coordinating Center works with CIMRP to fund and approve AML projects in Colorado and to evaluate the State 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 CIMRP are based on the calendar year. Because the *evaluation* year (on which this report is based) includes the period of October through September, CIMRP's grants span parts of two successive evaluation periods. While the administration funding in those grants applies to a single calendar year, the construction

funding is available for three years. Excluding five projects that the State eventually canceled, OSM funded 145 coal and 137 noncoal projects in 19 grants awarded to CIMRP since the Secretary approved its program. In calendar year 1999, OSM awarded a grant to CIMRP in the amount of \$2,250,000 for construction and administration in calendar year 1999. That grant funded the Program's staffing of 14 full-time equivalent positions and reclamation of four coal and nine noncoal projects. Colorado's calendar year 2000 funding totaled \$2,000,000 for administration and construction. The 2000 grant funded reclamation of two coal and twelve noncoal projects as well as 14 full-time equivalent positions. Tables 1 and 2 describe Colorado's AML reclamation accomplishments and remaining reclamation needs based on data from the Abandoned Mine Land Inventory System.

Colorado has an approved subsidence insurance program called the Colorado Mine Subsidence Protection Program. CIMRP oversees an insurance brokerage firm's administration of the insurance program. The insurance program had 934 active members as of June 2000, a decrease of 57 members since July 1999. About 88.8 percent of the members live in the Colorado Springs area, while 9.7 percent reside in the area of the Boulder/Weld field. Another 1.2 percent of members live in the foothills, and the last .3 percent live on Colorado's Western Slope. Only 1 claim was filed since October 1, 1999; it originated in the Colorado Springs area. An investigation showed that the problem was not mine subsidence-related and the claim was closed.

Colorado does not have an OSM-approved emergency coal reclamation program.

### **III. NOTEWORTHY ACCOMPLISHMENTS**

Public awareness of hazards associated with abandoned mines is effective in preventing and reducing accidents involving abandoned mines. CIMRP participated in a number of activities to increase public awareness of AML hazards during this evaluation period. For example, the Program provided information on abandoned mine closures during a High Altitude Revegetation Conference in March. During the same month, it attended the Grand Junction Safety Fair to distribute information on mine hazards to schools and the general public. During the West Slope Rendezvous in May, CIMRP staff added to the study of Colorado history by distributing information for schools about mining and mine hazards. On March 14, 2000, CIMRP and MSHA co-hosted a regional kick-off session in Denver of Mine Hazard Awareness Campaign 2000, aptly named Stay Out-Stay Alive. Several State and Federal agencies attended the meeting and received promotional items to use as part of their own AML hazard awareness activities. Campaign 2000 ran from April 16<sup>th</sup> through the 30<sup>th</sup> in conjunction with Earth Day activities. During the summer, CIMRP employed high school students to inventory abandoned mine features while providing them with environmental learning opportunities. On August 1<sup>st</sup>, a newspaper serving the Canon City and Salida areas published an extensive article about CIMRP that also discussed bats and abandoned mine hazards. Also, Program employees staffed an AML information booth at the Taste of Colorado, a major Labor Day event in downtown Denver. The Program

continues to work with the State's gaming communities and County Commissioners to promote abandoned mine safety awareness and responsibility in response to the growing popularity of limited stakes gambling in some historic mining towns and the increased visitation it brings to nearby abandoned mines.

CIMRP continued to develop mine reclamation partnerships with various agencies. Those agencies included the Colorado Division of Wildlife, the Colorado Department of Health, the U.S. Environmental Protection Agency (EPA), the U.S. Department of the Interior, Bureau of Land Management (BLM), and the U.S. Department of Agriculture, Forest Service (USFS).

Because of these developing partnerships, OSM grants are not the only source of funding for Colorado's AML activities. The BLM and USFS occasionally fund partial or all costs of reclaiming abandoned mine projects on public lands they administer. In 2000, BLM fully funded one of CIMRP's noncoal projects and provided partial funding for a second noncoal project. USFS provided partial funding through its Abandoned Mine Initiative to CIMRP for one noncoal project this year. Additionally, EPA fully funded one of CIMRP's noncoal projects under section 319 of the Clean Water Act. In conjunction with the Interdepartmental Abandoned Mine Lands Watershed Cleanup Initiative and the Western Governors Association, CIMRP continued characterizing and researching pollution in the Upper Animas River Basin in San Juan County, Colorado. The Program receives the bulk of its funding for that work from the EPA, BLM, Forest Service, and the Colorado Department of Health. CIMRP also received funding from the Colorado Legislature to reclaim two coal projects with coal severance tax money and one noncoal project with funds derived from a tax on limited stakes gambling.

Colorado's Inactive Mine Reclamation Program also continued to protect bats and their habitat through its construction of special mine closures and efforts to increase public awareness of bats' ecological roles. The Program is among a growing number of State and Tribal AML programs that promote bat conservation as an integral part of abandoned mine reclamation. One member of CIMRP's staff is an active member of the steering committee for the Bat Conservation and Mining technical interactive forum to be held in St. Louis, Missouri, on November 14<sup>th</sup> through the 16<sup>th</sup>, 2000. That individual had an essential role in developing the forum, will chair one of the forum's sessions, and is one of the scheduled speakers. During the 2000 field review of performance measure 1(b) summarized under Part III A. of this report, the team viewed one bat grate of many CIMRP built to provide bat access to underground mine workings while restricting public entry. We also viewed a popular glory hole that the State fenced to protect visitors while preserving habitat for a bachelor colony of about 250,000 Mexican free-tailed bats. In addition, on July 19 and 20, 2000, the Colorado Division of Minerals and Geology (of which CIMRP is a part), the Colorado Division of Wildlife, Bat Conservation International, and the U.S. Department of the Interior, Bureau of Land Management hosted the Colorado Bat Conservation and Management Workshop in Grand Junction. CIMRP works closely with the Division of Wildlife to conduct bat surveys of abandoned mines prior to, and sometimes during, reclamation.

Colorado hosted the annual conference of the National Association of Abandoned Mine Land Programs in Steamboat Springs from September 24<sup>th</sup> through the 27<sup>th</sup>. The conference theme was Reflecting on the Past - Assessing the Future. Five members of our 2000 review team attended the conference.

#### **IV. RESULTS OF ENHANCEMENT AND PERFORMANCE REVIEWS**

The 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 applies to the 1998, 1999, 2000, 2001, and 2002 evaluation years. However, we update the agreement each year with current-year schedules and to indicate which principles of excellence and performance measures we plan to review. We also update the performance measures to specify any particular aspects of the programs we plan to focus on.

We emphasized on-the-ground or end-results when we developed the principles and measures in the agreement. Each principle of excellence has one or more performance measure(s). Each performance measure is one specific topic within a general principle of excellence. We decide which performance measures to review and evaluate in a particular year. Performance measures describe 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 2000 review of Colorado's AML 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 3: The State must have systems to properly manage AML funds.

" *Performance Measure (e)*: Are the costs of State AML program activities appropriately documented and supported?

Results of our 2000 review and evaluation are summarized below. These summaries are based on information we gathered during field visits to AML projects, interviews with CIMRP and Department of Natural Resources staff, and reviews of CIMRP's project specifications. 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 reviews and evaluations

of performance measures 1(b) and 3(e).

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

The team's evaluation of this performance measure determined whether Colorado's completed reclamation is successful on a long-term basis. For the purpose of this review, we defined long-term reclamation as any project completed more than three years prior to the date of the revised performance agreement. CIMRP reclaimed 254 coal and noncoal projects from the time its program was approved effective June 11, 1982, through the December 31, 1999, date of its latest grant performance reports. The 2000 review population, therefore, was every project CIMRP reclaimed before January 1997, which totaled 213. The review sample included 18 coal projects and seven noncoal projects reclaimed from 7.8 years to 17.6 years ago, with an average age of 14.2 years for the reclaimed projects we viewed.

Our evaluation concluded that long-term reclamation of the projects we visited was successful overall. We based our conclusion on two basic factors. First, we considered if specific measures Colorado prescribed to abate hazards were intact and functional. Second, we considered whether reclamation the State completed more than three years ago (i.e., long-term by our definition) continued to improve restored areas over their previously abandoned condition as shown on maps and in photographs taken before reclamation. Though we focused on evaluating CIMRP's methods of safeguarding mine openings and coal waste pile reclamation, AML problems CIMRP abated also included hazardous equipment or facilities and dangerous piles or embankments. We looked for specific problems while empirically evaluating overall site conditions. As we walked each area, we noted whether problem features shown on project maps and in specifications were evident. If they were not evident, we concluded that measures used to abate them were intact and functional. If problems were evident, we determined if they were among the hazards originally included in the specifications or if they occurred since CIMRP completed reclamation. Next, we decided if any problems we found were hazardous or not and if maintenance was needed to correct them. Considering these factors, we then decided whether reclamation continued to improve the project areas over their previously abandoned condition.

The team viewed measures CIMRP constructed to safeguard 64 portals and vertical openings at 22 projects. Many of them abated hazards of mine openings located near public roads, close to homes or housing developments, or on public lands used for outdoor recreation. The 18 portal closures we viewed involved nine different types of construction, including one bat grate. CIMRP safeguarded the 46 vertical openings we visited with 10 different methods. Of the 64 reclaimed mine openings we visited, hazard abatement measures were intact and functional at 61, for an excellent long-term success rate of over 95 percent.

We observed a number of situations that require maintenance and monitoring. Safeguards at three mine openings were compromised. They included two breached

backfill closures and a vandalized perimeter fence that the State originally built 13.7, 14.1, and 16.6 years ago. We also found three situations near constructed closures that did not directly impact the closures themselves but nevertheless were hazardous or potentially hazardous. They included an adit that opened next to a shaft closure, a subsidence opening that developed adjacent to an inclined shaft closure, and an opening created by subsidence adjacent to a portal closure. We recommended CIMRP perform maintenance to correct these six situations. Finally, the team recommended CIMRP monitor three other situations. They included minor settling in a backfilled vertical opening, subsidence adjacent to an inclined adit, and loose fencing around a glory hole that provides habitat for Mexican free-tailed bats.

Reclamation of coal waste material was successful at all of the eight coal waste piles we visited at five projects. Colorado reclaimed these project areas from 8.8 years to 16.6 years ago. No stability problems were evident at any of the waste piles. While the extent of cover varied, we noted that vegetation was established on all the reclaimed waste piles. Shrub growth was excellent overall and trees planted at one project by Volunteers for Outdoor Colorado were doing well.

The team concluded that reclamation we observed continued to be a long-term improvement compared to the abandoned conditions the sites were left in before Colorado reclaimed them. We reached this conclusion notwithstanding the cases we found where maintenance is needed to correct hazardous or potentially hazardous conditions that occurred since the State completed reclamation. We reasoned that, by closing mine openings, removing hazardous structures, and eliminating coal waste as a source of stream sedimentation and pollution of irrigation water, Colorado removed public safety and environmental problems. By their very nature, those hazards and problems made the land or water unsafe or less suitable for use by people and wildlife. In addition, by reestablishing vegetation, promoting surface water retention, improving water quality, and preserving or improving wildlife habitat, the State restored various natural resource values to reclaimed abandoned mine lands. In this context, Colorado's long-term reclamation was successful because it improved the condition of the projects we visited.

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

Our evaluation of this performance measure determined if the costs of Colorado's AML activities are appropriately documented and supported. This is a fundamental accounting concept that ensures supporting documentation is adequate to demonstrate that claimed costs are proper expenditures of AML funds. The Colorado Department of Natural Resources includes DMG, which in turn includes two components. One is the Office of Mined Land Reclamation, which includes the State's coal and minerals regulatory programs. The other component, the Office of Active and Inactive Mines, includes CIMRP and the Mine Safety and Training Program. We looked at records and transactions pertaining to CIMRP's accounts.

We interviewed State staff at the Department, Division, and CIMRP levels who are responsible for AML transactions involving grants awarded by OSM. Our review concentrated on transactions that occurred during fiscal year 1999. In some cases, we reviewed transactions that occurred since then because some information from fiscal year 1999 was closed and archived and would have been difficult to retrieve. Records we reviewed of sample transactions included monthly expenditure and revenue reports, project expenditure reports, and supporting source documents such as employee time sheets and travel logs. We also looked at journal entries and program ledgers and discussed how transactions and their expenditures are charged to the Inactive Mine Reclamation Program. The team sampled and discussed various object class categories listed in CIMRP's grant applications to determine how Colorado tracks funds for particular cost categories.

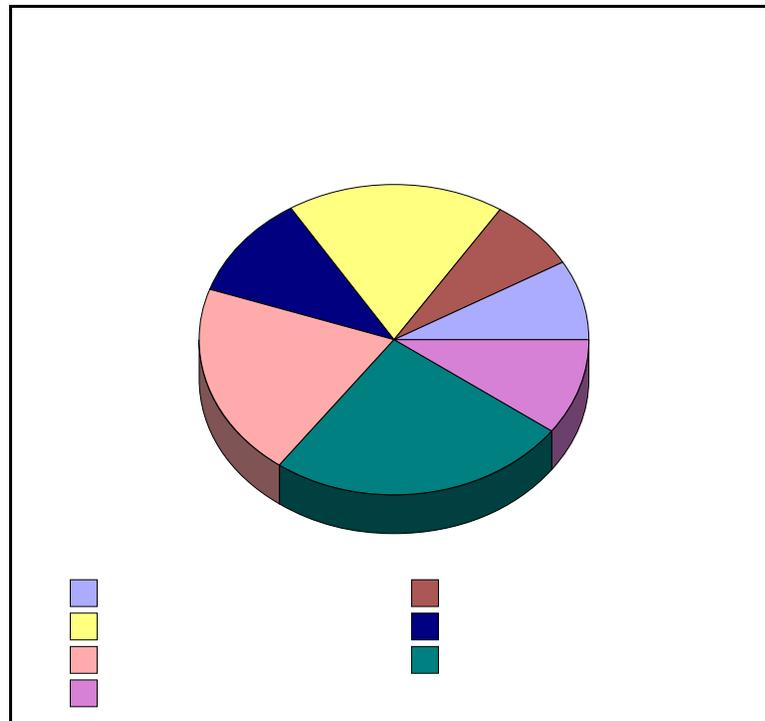
Our evaluation concluded that the costs of Colorado's AML activities are appropriately documented and supported. Our review found no circumstances that would lead us to recommend corrective actions. Colorado has a good system to identify and account for transactions involving OSM grant funds. Account classification methods that identify activities and costs correlate through the various departmental reports and ledgers that we reviewed. The State keeps AML account records current and complete, and we found the flow of funds easy to follow. We believe adequate safeguards are in place to prevent waste, loss, or unauthorized use of property and supplies purchased with OSM funds. Colorado's system of internal controls is excellent and prevents mixing OSM funds between DMG's coal regulatory program and CIMRP and with other Department of Natural Resources accounts. Additionally, the State satisfactorily keeps pertinent documents and source records. We also believe there are sufficient safeguards for approving and authorizing transactions because only the DMG Director, the CIMRP Supervisor, and CIMRP's Senior Environmental Protection Specialist may sign for AML purchases and transactions.

## **V. ACCOMPLISHMENTS AND INVENTORY REPORTS**

Tables 1 and 2 list the abandoned coal and noncoal mine problems Colorado included in the Abandoned Mine Land Inventory System (AMLIS) and how many of those problems the State reclaimed so far. The tables also show the estimated reclamation costs of unreclaimed coal and noncoal problems and how much the State's completed coal and noncoal reclamation cost.

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 from active mines. Accordingly, CIMRP reclaimed abandoned coal-mine related hazards exclusively in 75 projects funded in its first three grants. Since then, it reclaimed another 66 coal projects and has funding to reclaim another five. Eighty-two percent of the \$11.7 million-plus cost Colorado incurred to abate abandoned coal mine-related hazards since the Secretary approved its program effective June 3, 1983, involved six problem types. They include: dangerous highwalls (25.1%), vertical

openings (20.2%); spoil areas (10.9%); portals (9.9%); subsidence (8.6%); and underground mine fires (7.3%). Fifteen other types of problems comprise the remaining 18 percent of CIMRP s completed abandoned coal mine reclamation. Figure 1 below shows CIMRP s abandoned coal mine-related reclamation accomplishments.



Colorado continues to receive funding to reclaim abandoned coal mines and has not certified under section 411(a) of SMCRA that it addressed all its known abandoned coal mine problems. As Table 1 shows, over \$38 million in unreclaimed problems are included in the State s inventory of coal hazards in AMLIS. Eighty-six percent of that estimated cost is associated with three problems, including: Subsidence (34.5%); underground mine fires (28.6%); and gobs (22.9%). The last six grants OSM awarded to CIMRP funded ten projects to investigate underground mine fires and to test abatement technology. Of those ten projects, six involved different phases of work on three different fires. The State eventually canceled plans for five of those abatement projects to reevaluate proposed abatement techniques and the extent of the fire hazards. Those fires remain inventoried in AMLIS. Over the years, Colorado completed a number of projects that also addressed abandoned coal mine-related subsidence. Most recently, CIMRP s 2000 grant funded the Subsidence Control 2000 project that will involve drilling, grouting, and backfilling at abandoned coal mines throughout the State primarily to follow-up on emergency abatement actions that OSM previously completed. State and OSM experience shows that subsidence and underground mine fires are two of the most expensive and technically difficult abandoned coal mine problems to deal with effectively. Finally, the unreclaimed gob problem involves priority three environmental hazards where the need for abatement is

not as urgent.

Much of the remaining estimated cost of reclaiming other coal-related problems is associated with spoil areas (3.5%), vertical openings (3.2%), slumps (2.2%), and lower priority mine openings (1.9%). Combined with subsidence, underground mine fires, and gobs, these seven problem types make up almost 97 percent of the estimated cost of reclaiming Colorado's remaining abandoned coal mine problems. Figure 2 below further illustrates the scope of Colorado's remaining abandoned coal mine problems.

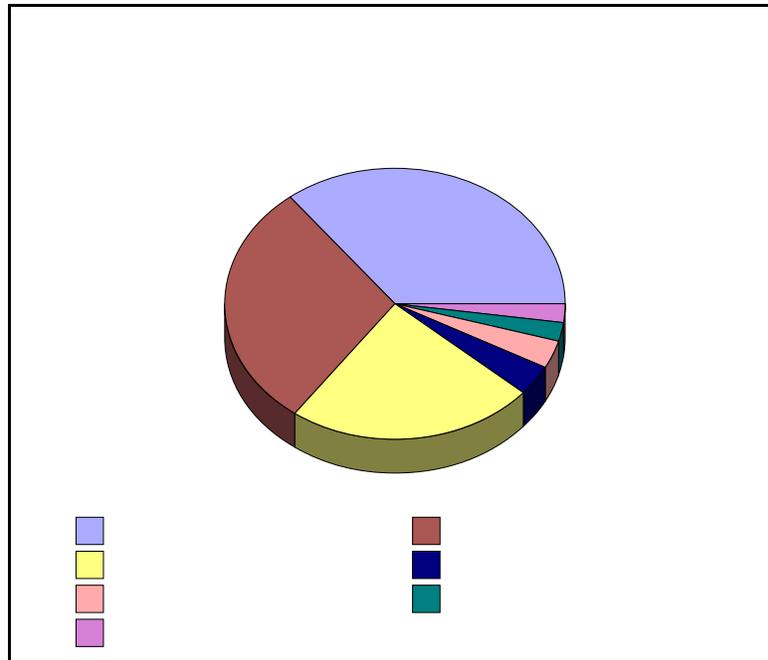


Table 2 summarizes the noncoal problems Colorado inventoried and the State's noncoal reclamation accomplishments. Despite CIMRP's efforts over the years to address the highest priority hazards, abandoned noncoal problems still number in the tens of thousands and are found throughout the entire State. The estimated \$67.85 million cost of inventoried, unreclaimed noncoal problems in the State is almost 1.8 times greater than the State's total estimated cost of reclaiming the remaining coal problems shown in Table 1. Noncoal portals and vertical openings constitute 100 percent of that estimated total cost. Because these abandoned mine features are so numerous and widespread, they pose an immediate and extreme hazard to public health and safety. Urban sprawl, a large number of people moving to Colorado from other States, and renewed interest in exploring and living in historic mining areas combine to make abandoned noncoal mines and their attendant features increasingly hazardous.

CIMRP continues to respond to the noncoal threat by emphasizing noncoal reclamation in its grant requests. Of 40 projects funded in CIMRP's 1998, 1999, and

2000 grants, 30 address noncoal problems. Table 2 shows that CIMRP s completed noncoal reclamation addressed dangerous highwalls, portals, subsidence, and vertical openings. To date, Colorado spent over \$14.7 million on noncoal reclamation, over 25 percent more than its completed coal reclamation cost. In terms of mine openings alone, CIMRP has safeguarded over 4,150 portals and vertical shafts at abandoned noncoal mines. Figure 3 below illustrates the percentage each category of inventoried, unreclaimed noncoal problem comprises of Colorado s estimated unfunded reclamation costs. It also shows how much CIMRP s completed reclamation of the same type of noncoal problems cost so far.

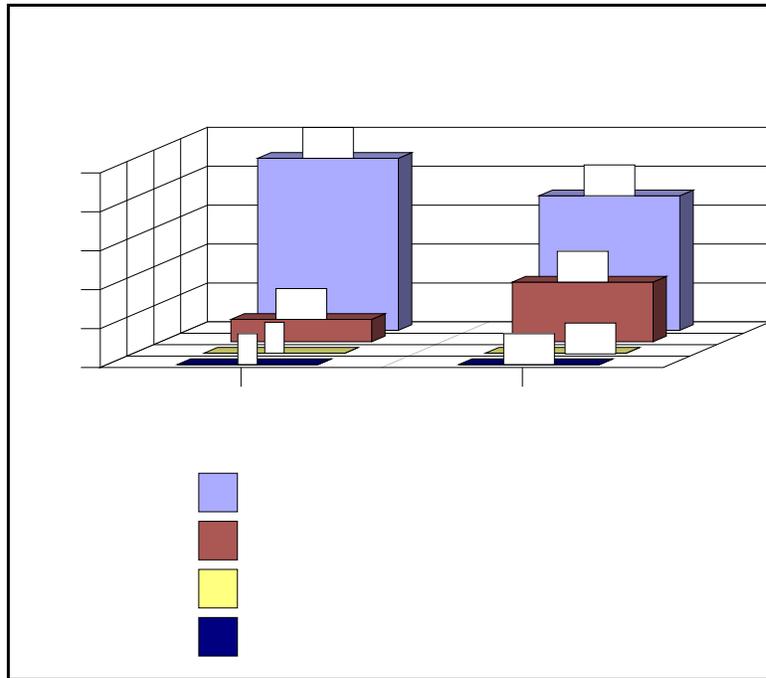


Table 1  
 Colorado Inactive Mine Reclamation Program  
 Coal AML Reclamation Accomplishments and Remaining Reclamation Needs\*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Bench	58.0 acres	\$201,500	0.0	0	3.0 acres	\$31,044	61.0 acres	\$232,544
Dangerous Highwalls	1,030.0 feet	\$30,000	500.0 feet	\$40,000	51,992.0 feet	\$2,955,885	53,522.0 feet	\$3,025,885
Dangerous Piles & Embankments	0.0	0	30.0 acres	\$517,000	18.5 acres	\$259,432	48.5 acres	\$776,432
Equipment/Facilities	73 (count)	\$108,000	0	0	7 (count)	\$14,657	80 (count)	\$122,657
Gobs	571.3 acres	\$8,734,954	67.0 acres	\$383,253	101.5 acres	\$937,118	739.8 acres	\$10,055,325
Highwall	1,100.0 feet	\$82,500	0.0	0	2,027.5 feet	\$46,387	3,127.5 feet	\$128,887
Hazardous Equipment & Facilities	1 (count)	\$2,000	0	0	1 (count)	\$1	2 (count)	\$2,001
Haul Road	4.0 acres	\$13,000	0.0	0	0.0	0	4.0 acres	\$13,000
Industrial/Residential Waste	3.0	\$13,000	0.0	0	7.0 acres	\$38,529	10.0 acres	\$51,529
Mine Opening	303 (count)	\$725,000	3 (count)	\$3,206	18 (count)	\$62,592	324 (count)	\$790,798
Other	28.0	\$104,000	0.0	0	5.0	\$48,916	33.0	\$152,916
Portals	32 (count)	\$136,060	24 (count)	\$78,746	501 (count)	\$1,160,646	557 (count)	\$1,375,452
Pits	98.0 acres	\$441,900	0.0	0	82.9 acres	\$387,062	180.9 acres	\$828,962
Polluted Water: Agric. & Indust.	0	0	1 (count)	\$50,000	3 (count)	\$22,481	4 (count)	\$72,481
Subsidence	179.6 acres	\$13,130,000	0.0	0	43.4 acres	\$1,012,240	223.0 acres	\$14,142,240
Spoil Area	398.6 acres	\$1,347,595	0.0	0	829.0 acres	\$1,286,756	1,227.6 acres	\$2,634,351
Surface Burning	1.0 acre	\$5,000	5.0 acres	\$70,000	35.0 acres	\$238,404	41.0 acres	\$313,404
Slump	25.0 acres	\$804,000	0.0	0	0.0	0	25.0 acres	\$804,000
Underground Mine Fire	176.5 acres	\$10,900,000	30.0 acres	\$2,980,000	156.5 acres	\$863,278	363.0 acres	\$14,743,278
Vertical Openings	118 (count)	\$1,242,967	22 (count)	\$100,995	277 (count)	\$2,369,396	417 (count)	\$3,713,358
Water Problems	39.0 gal.	\$23,000	1.0 gal.	\$25,000	1.0 gal.	\$6,000	41.0 gal.	\$54,000
<b>COLORADO TOTAL COSTS</b>		\$38,044,476		\$4,248,200		\$11,740,824		\$54,033,500

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of 10/06/2000

Table 2  
Colorado Inactive Mine Reclamation Program  
Noncoal AML Reclamation Accomplishments and Remaining Reclamation Needs\*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls	0.0 feet	0	0.0 feet	0	150.0 feet	\$2,498	150.0 feet	\$2,498
Portals	1,515 (count)	\$7,800,000	0 (count)	0	1,278 (count)	\$4,522,216	2,793 (count)	\$12,322,216
Subsidence	0.0 acres	0	0.0	0	2.0 acres	\$10,000	2.0 acres	\$10,000
Vertical Openings	11,127 (count)	\$60,055,000	0.0 (count)	0	2,873 (count)	\$10,180,333	14,000 (count)	\$70,235,333
<b>COLORADO TOTAL COSTS</b>		\$67,855,000		0		\$14,715,047		\$82,570,047

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of 10/06/2000