

**ANNUAL SUMMARY EVALUATION**  
of the  
**COLORADO INACTIVE MINE RECLAMATION PROGRAM**  
for  
**EVALUATION YEAR 2009**  
(July 1, 2008, through June 30, 2009)



September 15, 2009



## TABLE OF CONTENTS

I.	Introduction .....	1
II.	General Information on the Colorado Program .....	2
III.	Noteworthy Accomplishments .....	3
IV.	Results of Enhancement and Performance Reviews .....	4
V.	Accomplishments and Inventory Reports .....	13
<u>Appendix 1</u> - Coal AML Reclamation Accomplishments Since June 11, 1982, and Unfunded Coal Problems Remaining.....		17
<u>Appendix 2</u> – Coal Reclamation Accomplishments and Inventory Changes in the 2009 Evaluation Year.....		19
<u>Appendix 3</u> - Noncoal AML Reclamation Accomplishments Since June 11, 1982, and Unfunded Noncoal Problems Remaining.....		20
<u>Appendix 4</u> – Noncoal Reclamation Accomplishments and Inventory Changes in the 2009 Evaluation Year.....		21
<u>Appendix 5</u> - State Comments on the Report.....		22

## ACRONYMS

AML	abandoned mine land
AMLIS	Abandoned Mine Land Inventory System
AMR	Abandoned Mine Reclamation
ASAP	Automated Standard Application for Payments (of the U.S. Dept. of the Treasury)
BLM	Bureau of Land Management (of the U.S. Dept. of the Interior)
CIMRP	Colorado Inactive Mine Reclamation Program
CDPHE	Colorado Department of Public Health and Environment
DFD	Denver Field Division (of the Office of Surface Mining)
DNR	Colorado Department of Natural Resources
DOGM	Utah Division of Oil, Gas and Mining
DRMS	Colorado Division of Reclamation, Mining and Safety
EPA	U.S. Environmental Protection Agency
NAAMLPLP	National Association of Abandoned Mine Land Programs
NTTP	National Technical Training Program (of OSM)
OIG	Office of the Inspector General (of the U.S. Dept. of the Interior)
OSM	Office of Surface Mining Reclamation and Enforcement
SMCRA	Surface Mining Control and Reclamation Act of 1977, as amended
TIPS	Technical Innovation and Professional Services (of OSM)
USFS	Forest Service (of the U.S. Dept. of Agriculture)

Cover photo: Steel beamed grate closure #1, Moffat Coal Mine project. May 19, 2009.

## I. Introduction

Title IV of the Surface Mining Control and Reclamation Act of 1977 (SMCRA or “the Act”), as amended, provides moneys to States and Indian tribes from the Abandoned Mine Reclamation Fund (the Fund) and the general Treasury of the United States. The Office of Surface Mining Reclamation and Enforcement (OSM) administers Title IV of SMCRA on behalf of the Secretary of the Interior. The primary purpose of Title IV is to pay the costs of mitigating past coal mining effects, though it also allows certain noncoal problems to be addressed. On December 20, 2006, the President signed the Tax Relief and Health Care Act of 2006 (P.L. 109-432). That legislation included the Surface Mining Control and Reclamation Act Amendments of 2006 (the 2006 Act or the 2006 SMCRA amendments). The 2006 Act amended Title IV of SMCRA to make significant changes in the abandoned mine reclamation fee and the AML program. OSM published final regulations implementing the 2006 Act in the November 14, 2008, **Federal Register** (73 FR 67576). Those final regulations took effect January 13, 2009.

OSM awards grants to States and Indian tribes with moneys from the Fund and the general Treasury to pay their administration costs and reclaim abandoned mines. SMCRA puts the highest priority on correcting the most serious abandoned mine land (AML) problems that endanger public health, safety, and property. As amended, it also allows certain lower priority problems to be addressed if they are in conjunction with, or adjacent to, higher priority problems. OSM, State, and Indian tribal AML programs work together to achieve the goals of the national program. OSM also works cooperatively with the States and Indian tribes to evaluate their AML programs.

Directive AML-22 generally describes how OSM evaluates State and Tribal AML reclamation programs in “enhancement and performance reviews.” Following that Directive, a team of State and Federal personnel, called the Colorado-Utah AML Review Team, has evaluated the Colorado Inactive Mine Reclamation Program (CIMRP) and the Utah Abandoned Mine Reclamation Program (UAMRP) since January 1996. Loretta Pineda, CIMRP Director, and Luci Malin, UAMRP Administrator, are members of the Team. Frank Atencio and Ron Sassaman, OSM-Denver Field Division (DFD), are on the Team as well. The Team also includes other individuals on an ad-hoc basis as needed. CIMRP employees Adolph Amundson, Gary Curtiss, James Haag, James Herron, Steven Renner, and Bruce Stover helped us with the 2009 evaluation of the 1(a) performance measure. Christine Belka, OSM-DFD, helped with part of the 1(a) performance measure evaluation. Kimberly Seymour, CIMRP, and Department of Natural Resources employees Sharon Elliott, Stephanie Job, and Roger Williamson participated in the 3(b) and 3(c) performance measure evaluations. Ron Sassaman compiled this report.

This report summarizes our review and evaluation of the Colorado Inactive Mine Reclamation Program for the 2009 evaluation year, which included the period of July 1, 2008, through June 30, 2009.

## **II. General Information on the Colorado Program**

On June 11, 1982, the Secretary of the Interior approved Colorado's AML reclamation plan ("the plan") under Title IV of SMCRA. That approval allows Colorado to reclaim abandoned mines in the State in non-emergency AML projects. CIMRP is part of the Division of Reclamation, Mining and Safety (DRMS) in the Department of Natural Resources (DNR). It administers Colorado's AML program under its approved plan. The Denver Field Division of OSM's Western Region works with CIMRP to fund and approve AML projects in Colorado and to evaluate AML reclamation and other aspects of the Program.

Section 405(f) of SMCRA authorizes State and Indian tribal AML programs to apply to OSM each year for a grant to support their programs and reclaim specific projects. Colorado's grant performance periods span the period of July 1 of one year through June 30 of the following year. That period coincides with the State's fiscal year and OSM's evaluation year. CIMRP's grants include money to pay the Program's administrative and construction costs. Administration funding applies to a single year following the grant award date and construction funding is available for three years.

Colorado had three grants open during the 2009 evaluation year. The State's 2006 grant award totaled \$2,419,000. It funded 14 positions and other administration costs for one year as well as reclamation of four coal and 11 noncoal projects, project maintenance, and development of at least 12 additional projects for the State's 2007 grant application. The 2006 grant expired on June 30, 2009. Colorado's 2007 grant became effective July 1, 2007, and totaled \$2,443,481. That grant funded 15.5 full time equivalents and program administration for one year. It included funds for four coal and 13 noncoal reclamation projects and one project that combined coal and noncoal problems. That funding also enabled the State to develop at least 15 projects for funding in its 2008 grant. The State's 2007 grant expires on June 30, 2010. Colorado's 2008 grant is for the period of July 1, 2008, through June 30, 2011. It awarded \$6,791,587 and included the first annual payment of prior balance replacement funds under new section 411(h)(1) of SMCRA. It funds administrative costs and 19.8 full-time equivalents for one year. It also funds five coal projects and 12 noncoal projects. The 2008 grant includes funding to develop at least 15 projects for the 2009 grant. Colorado also submitted an application for its 2009 grant. That grant took effect July 1, 2009, one day after the end of the 2008 evaluation period.

CIMRP received about \$925,000 from non-SMCRA sources during the evaluation year. Colorado Senate Bill 05-190 created the Abandoned Mine Reclamation Fund under Title 34 of the Colorado Revised Statutes effective July 1, 2005. That statute authorizes the State Legislature to annually appropriate \$500,000 to the Colorado DNR for allocation to DRMS for abandoned noncoal mine and environmental reclamation and safety closures. DRMS has three years to spend each appropriation. CIMRP received \$325,000 in matching funds for non-point source demonstration projects under section 319 of the Clean Water Act and for other watershed grants. It also received \$100,000 in severance tax funds dedicated to public outreach and safeguarding hazardous noncoal

mine openings. The additional funding supplements Colorado's SMCRA-funded grants and enables CIMRP to abate a wider range of abandoned mine problems, especially noncoal mines.

CIMRP oversees an insurance brokerage firm's administration of Colorado's approved Mine Subsidence Protection Program. The insurance covers member households in four coal fields: Colorado Springs; Boulder/Weld; the Rocky Mountain foothills; and the Western Slope. By the end of the 2009 evaluation year, 741 active members lived in the Colorado Springs coal field, 70 lived in the Boulder/Weld field, eight lived in the foothills, and three lived on the Western Slope. Three homeowners filed claims during the 2009 evaluation year. All three live in the Colorado Springs coal field. One of those claims is closed because it was not related to abandoned mine subsidence. The remaining two claims filed during this period still are open and under investigation for possible damage from mine subsidence. An additional seven claims filed before this evaluation year remain open. Of those, homeowners will monitor conditions in five claims to see if conditions change over time. Damage in three of those five claims might be related to construction problems, the cause of another is uncertain, and the fifth is believed to result from mine subsidence but the repair cost is less than the \$1,000 deductible. Of the remaining two claims filed before this evaluation year, one is awaiting the State's response and another is under investigation for possible damage from mine subsidence.

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

OSM declared three emergencies in Colorado during the 2009 evaluation year. CIMRP received the original complaints for the three emergencies and relayed them to OSM. One involved subsidence in a farm's horse paddock and was related to the Canfield Mine. OSM declared the subsidence emergency on January 14, 2009, and construction was complete on January 23, 2009. Another reported subsidence occurred in a corn field in Erie. That subsidence was related to the Longs Peak Mine. OSM declared that subsidence an emergency on June 10, 2009, though it was originally reported on December 15, 2008. OSM fenced the subsidence on December 23, 2008, shortly after it was originally reported. Backfilling completed the construction work on July 7, 2008. The third reported emergency involved an underground mine fire on private property in Marshall. It was closest to the Sunshine Mine. OSM declared the fire an emergency on June 30, 2009, and construction was complete on July 8, 2009.

### **III. Noteworthy Accomplishments**

Colorado received OSM's National Award for Excellence in Reclamation for the Peanut Mine project at the Durango, Colorado, annual conference of the National Association of Abandoned Mine Land Programs (NAAML) in October, 2008. The project area included abandoned coal mine and silver mill waste. Reclamation was a cooperative effort between CIMRP, the Town of Crested Butte, Gunnison County, the Colorado Department of Local Affairs and Department of Public Health and Environment, the U.S. Environmental Protection Agency, Peanut Mine, Inc., and others. After completion of

CIMRP's reclamation, volunteers planted 4,500 trees in the reclaimed area. Colorado also hosted the 2008 NAAMLPLP annual conference.

CIMRP continued its public outreach, partnering, and related activities during the evaluation year. Highlights of those activities included:

- Renewing its *Stay Out and Stay Alive* AML safety awareness message through interviews and responses to media inquiries;
- Participating in meetings or workshops with watershed groups, the Western Interstate Energy Board, the Colorado Department of Public Health and Environment (CDPHE), the Inactive Mine Reclamation Advisory Committee, OSM, and western States;
- Providing financial and other support for and using data from the Mine Subsidence Information Center that the Colorado Geological Survey operates and coordinates;
- Participating in the Fix a Shaft Today (FAST) campaign with the U.S. Department of the Interior (USDI), Bureau of Land Management (BLM); and
- Sponsoring exhibits at the Colorado State Fair and the Taste of Colorado.

The Program also participated in technology transfer, technical assistance, and training activities by:

- Attending and making presentations at the NAAMLPLP conference and meetings;
- Participating in the OSM/VISTA Western Hardrock Watershed team to help watershed groups enhance partnerships, funding opportunities and watershed sustainability. Partners include the Animas River Watershed, Coal Creek Watershed, Lake Fork of the Arkansas Watershed, and North Fork of the Gunnison Watershed Groups; and
- Participating in the 12<sup>th</sup> Annual Colorado Preservation, Inc.- Saving Places Conference and the Agricultural Sciences and Natural Resources Career Fair at Colorado State University.

CIMRP continued to partner with other agencies to leverage its SMCRA funding for AML reclamation and/or to address a wider range of AML problems than those ordinarily funded under SMCRA. During the 2009 evaluation period, it partnered with the U.S. Department of Agriculture, Forest Service and the U.S. Department of the Interior, Bureau of Land Management (BLM), on noncoal projects. The Program also manages the bond forfeiture reclamation program for the Division of Reclamation, Mining and Safety.

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

We updated the "Colorado-Utah AML Review Team Performance Agreement" on November 21, 2008, and January 5, 2009, to describe the principles of excellence and performance measures that we planned to review in the 2009 evaluation year. The final updated Agreement is dated February 2, 2009.

Principles of excellence and performance measures emphasize on-the-ground or end-results as much as possible. Each general principle of excellence has one or more specific performance measure(s). Performance measures describe: Why we selected that topic; what the review population and sample sizes will be; how we will do the review and report the results; and our schedule for completing the review. The principles of excellence and the specific performance measures we chose for our 2009 evaluation of the Colorado Inactive Mine Reclamation Program are:

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

- *Performance Measure (a):* Does reclamation meet the goals of the project?

*Principle of Excellence 2:* The State AML procedures are efficient and effective.

- *Performance Measure (e):* Does the information the State entered into AMLIS beginning July 1, 2004, agree with information in its files?
- *Performance Measure (h):* Does the State follow its approved Plan's requirements for public participation in project planning?

*Principle of Excellence 3:* The State has systems to properly manage AML funds.

- *Performance Measure (b):* Can the grant application and report procedures be improved?
- *Performance Measure (c):* Are State procedures for property procurement, management and disposal of property effective?

Results of our 2009 evaluations are described below in Parts IV.A, B, C, D and E. We described our evaluation results in much greater detail in an enhancement and performance review report for each performance measure. Those reports are on file in OSM's Denver Field Division and are the detailed factual basis of this report's summary of our evaluation of performance measures 1(a), 2(e), 2(h), 3(b), and 3(c).

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

Our goal for this evaluation was to determine if reclamation met project goals. The evaluation sample included the Baum, Moffat, Bunker Hill, Rex #1/Bonanza drill and grout, and South Canyon mine fire abatement coal projects. We empirically compared CIMRP's reclamation to its project specifications and closeout reports and reviewed pre- and post-construction photographs where available. We considered measures CIMRP approved in change orders during construction to address site-specific conditions. We also considered any requirements resulting from interagency consultation it completed to help OSM comply with NEPA and other laws. Our evaluation focused on determining whether completed reclamation met project goals by continuing to abate original

hazards, complying with conditions of interagency consultation, and improving overall site conditions compared to pre-reclamation conditions.

CIMRP's specifications reflect proven, standardized measures for safeguarding abandoned mine features that can be adapted to site-specific conditions. They also serve to improve site conditions overall. We determined if mine closures were still



Stabilized entry to vertical opening #2 of the Bunker Hill project. January 22, 2009.

closed or, if not, whether underground workings were accessible and posed a hazard. In general, we agreed that projects met their goals if abatement measures were intact and functional and no problems that would compromise those measures were evident. Construction of closures that preserve wildlife habitat, maintain the appearance of open mines after closure, and leave historic mine features intact are some of the indicators we looked for to determine if the Program implemented the results of interagency consultation. We considered site conditions improved overall if hazards to public

health and safety were abated and, where applicable, if reclamation reduced environmental problems such as erosion and sedimentation while promoting revegetation.

With one partial exception, we concluded that the sample projects met their respective goals. Goals included abating hazards, complying with provisions resulting from interagency consultation, and improving site conditions compared to pre-reclamation conditions. We viewed abatement of all the hazards addressed in the sample projects, including nine portals, eight vertical openings (including vertical, inclined, and declined shafts), and ten reclaimed subsidence features. Only two of the closures we visited were not completely intact. CIMRP will monitor one and schedule the other for maintenance repairs.

The sample mine fire abatement project had slightly different goals from the others. Its primary goal was to seal mine and subsidence openings in an effort to reduce oxygen fueling the fire. A secondary goal was to eliminate the immediate public health and safety hazards those openings posed. We concluded that the mine fire abatement project abated hazards attendant to mine and subsidence openings and improved site conditions overall compared to pre-reclamation conditions. It also complied with provisions resulting from interagency consultation. In those respects, it met project goals. We were unable to determine to what extent CIMRP's subsidence and portal closures at the mine fire abatement project reduced the amount of oxygen available to

the fire. The fire continues to burn in the project area and fire temperatures have not shown a significant decrease to date. This fire is geotechnically complex and has not been significantly affected by previous mine closures. It may be getting oxygen by any number of natural, fire-caused, or abandoned mine-related pathways. The mine fire is officially considered the cause of a large range fire that occurred in the area in June 2002.



Overview of the upslope area of the South Canyon mine fire abatement project. June 4, 2009.

We observed how CIMRP's reclamation complied with conditions of interagency consultation. Two of the closures included grates with bat slots. Those closures protect actual and potential wildlife habitat while preventing human entry. CIMRP also complied with landowners' requests to avoid disturbing structures in one project area to enhance public open space even though the structures are not eligible for listing on the National Register of Historic Places. Further, the Program preserved and/or avoided structural remnants and other historic values in another sample project. Re-resealing a portal in the fire area preserved an adjacent stone wall intact as planned in consultation with the State Historic Preservation Officer.

## **B. Summary Evaluation of Performance Measure 2(e)**

In September 2004, the U.S. Department of the Interior, Office of the Inspector General (OIG), issued report number 2003-I-0074 based on its review of Abandoned Mine Land Inventory System (AMLIS) data for four eastern States' abandoned mine land programs. That report criticized the accuracy of AMLIS data in Problem Area Descriptions (PADs), concluding that AMLIS data did not match data in the respective States' files. In part, the OIG recommended establishing "a quality control system that ensures that States, Tribes, and OSM, as applicable, review and certify the accuracy of data entered into AMLIS."

OSM responded to the OIG's recommendation with two new requirements for program evaluations. The first required OSM field offices to "assure that each State and Indian Tribe AML program has procedures in place to ensure and certify the accuracy of data entered into AMLIS." CIMRP uses project closeout reports to compile data for AMLIS input. We consider the project closeout reports to be CIMRP's "system" for ensuring that completion data it enters into AMLIS match data in its files. So, we developed the 2(d) performance measure to meet the first new requirement and evaluated it in the 2005 evaluation year. We developed performance measure 2(e) to address the second

new requirement and determine if CIMRP's use of its system works as intended. Our evaluation of the 2(e) measure involves an annual comparison of data in a sample of Colorado's AMLIS PADs to data in the State's closeout reports. The 2009 evaluation sample included five completed coal projects and seven completed noncoal projects. Those projects had a total of 20 PADs.

Our first review made a number of findings. We found that CIMRP updated PADs, completed priority documentation forms, and entered data in the performance measures database for all of the sample projects. However, we also found that data in four of the 12 projects' closeout reports matched data in their respective PADs. CIMRP entered alternate funding source information in the problem summary section of PADs for five of the seven sample projects on which it partnered with other entities. Our findings also identified where data varied within PADs. Based on our first review findings, the conclusions we reached, and the recommendations we made, CIMRP revised project closeout reports and AMLIS PADs to correct data. So, we did a second review.

Our second review also made a number of findings. CIMRP updated AMLIS PADs, completed priority documentation forms, and entered data in the performance measures database for all sample projects. CIMRP's comments on the draft report revealed errors in our first comparison that we corrected, and corrected data in closeout reports and AMLIS to improve the degree to which those data match. Data discrepancies remaining in five PADs for four sample projects are relatively minor. AMLIS limitations prevented the State from correcting two of those PADs. CIMRP documented quality control reviews of all sample closeout reports but one.

Based on our second review findings, we reached the following conclusions:

- CIMRP's use of project-specific PADs makes interpreting PAD data much easier than in previous evaluation years;
- CIMRP's use of project closeout reports and project-specific PADs significantly improved the overall accuracy of AMLIS data, as shown by the relatively minor discrepancies that we found;
- CIMRP did quality control reviews for almost all the sample projects;
- CIMRP's use of project closeout reports to update AMLIS was not completely successful in ensuring that the data in those reports match data in AMLIS; and
- We recognize that AMLIS, as configured pending completion of the AMLIS upgrade, is not the best tool for reporting reclamation costs and accomplishments. We also recognize that this reporting requirement does not reflect on the cost-effectiveness or efficiency of Colorado's abandoned mine reclamation. However, CIMRP needs to continue to improve its project closeout and AMLIS reporting to ensure the accuracy of Colorado's AMLIS data, which it helps OSM maintain and update under section 403(c) of SMCRA.

Based on our first *and* second review findings and conclusions, we recommended that:

- ▶ As possible, CIMRP correct project closeout report and/or AMLIS data as needed to ensure they are accurate and match, noting that CIMRP might not be able to make completion data changes in AMLIS at this time due to the ongoing upgrade;
- ▶ CIMRP project managers should express accomplishments data in project closeout reports as standard AMLIS keywords and units and prorate project costs by keyword to facilitate entering that data into AMLIS; and
- ▶ CIMRP improve its quality control reviews of project closeout reports to ensure that completion data in them match data in the respective projects' AMLIS PADs.

### **C. Summary Evaluation of Performance Measure 2(h)**

Public participation is a cornerstone of the Surface Mining Control and Reclamation Act of 1977, as amended (SMCRA). State and Indian tribal abandoned mine reclamation programs approved under SMCRA similarly provide for public participation. Part VI of Colorado's Inactive Mine Reclamation Plan (the Plan) provides for public participation and involvement in the Program. It discusses public participation in two contexts: First, in subpart A, in context of the Advisory Council's review and selection of projects for further consideration by the Mined Land Reclamation Board (MLRB); and second, in subpart B, in context of submitting a grant application to OSM. We evaluated CIMRP's project ranking and selection and the Advisory Council's role in that process in the 2001 period. Subpart B of Part VI of the Plan discusses public participation in developing a grant application. It, too, is grouped into two parts. The first part addresses MLRB meetings. Though we did not focus on the Advisory Council's or MLRB's public participation activities, we noted them where evident.

We used the second part of subpart VI.B. of the Plan as the primary basis and standard for this evaluation. It describes activities that CIMRP is more likely to carry out than the Advisory Council or MLRB. It requires CIMRP staff to contact local officials, affected landowners and interested parties 30 days before Board action regarding grant applications. They also are to hold local public meetings in affected areas when needed. These measures are to ensure that local concerns for reclamation will be incorporated into project designs. The provisions also require notices to be published in local newspapers to inform people of proposed projects in their area and allow sufficient time for comment. The MLRB is to review and address all comments received when it approves a grant application.

The final sample for this evaluation included nine projects, three from the 2006, 2007, and 2008 grants each. Reclamation was complete by the time of our evaluation on all but three of the sample projects.

Our review of the nine sample projects found the following:

1. CIMRP published public notices of proposed projects less than 30 days before MLRB action on the 2006 and 2008 applications. We could not find documentation of public notices published for the sample projects funded in the 2007 grant application;
2. CIMRP did not receive any documented public comments on the sample projects before the Board's approval of the 2006, 2007, and 2008 grant applications;
3. CIMRP received one documented public comment for a project in the 2008 grant application before it was submitted to OSM, and responded to that comment;
4. Colorado held Advisory Council meetings to discuss projects to be included in the 2006, 2007, and 2009 applications for SMCRA grant funding;
5. Colorado published public notices of and held MLRB meetings to discuss and approve projects to be included in the 2006, 2007, and 2008 grant applications;
6. MLRB did not receive documented public comments on the 2006, 2007, and 2008 SMCRA grant applications before Colorado submitted them to OSM;
7. CIMRP held a local public meeting for a subsidence abatement project in the affected area before Colorado submitted the grant application to OSM; and
8. We could not find documentation showing that CIMRP followed the provisions of the second part of Subpart B of Part VI of the Plan. That Part discusses the requirement that "the staff will contact local officials, affected landowners and interested parties 30 days prior to Board action regarding grant applications."

Based on our findings, we concluded the following:

- CIMRP provided public notice of projects to be funded in its 2006 and 2008 SMCRA grant applications less than 30 days prior to Board action on those applications;
- CIMRP conducted a public meeting in the affected area of one sample project as needed and responded to the one documented comment it received for the same project;
- We could not determine if CIMRP provided public notice of projects to be funded in its 2007 SMCRA grant application 30 days before Board action because we could not find the needed documentation;
- Meetings of the Advisory Council and MLRB provide some public involvement because their members represent a variety of interests in the public and private sectors; and

- Other than meeting with the Advisory Council, we cannot determine if CIMRP staff contacted local officials, affected landowners and interested parties 30 days prior to Board action on SMCRA grant applications because the files did not document those contacts. CIMRP noted that its staff contact landowners as projects are developed before Board action. It also noted that staff formally contact landowners after grants and projects are approved and attend County Commission meetings. We were unable to find documentation of those activities in CIMRP's files, however.

Based on our findings and conclusions, we recommended that:

- ▶ CIMRP provide public notice of projects no less than 30 days before MLRB action on SMCRA grant applications;
- ▶ CIMRP include documentation in its files of its contacts with local officials, affected landowners, interested parties, County Commissions, and others 30 days before MLRB action on SMCRA grant applications and any comments and project changes those contacts generated; and
- ▶ Colorado should revise its plan to change the 30-day notification and contact requirements if experience shows that timeframe and link to MLRB action on the SMCRA grant application are impractical. Some change is necessary because Colorado's SMCRA grant applications no longer identify specific projects to be undertaken, so the applications themselves do not provide public notice of proposed projects.

#### **D. Summary Evaluation of Performance Measure 3(b)**

This evaluation determined if Colorado's grant application and report procedures can be improved. We reviewed the current methods Colorado uses to apply for OSM grant funds. We looked at changes to the Federal Business Management System (FBMS) subaccount numbering schemes and their allowable use for the Colorado program. Our evaluation sample included subaccounts created as a result of the 2006 SMCRA amendments. We concentrated on funding available under the 2006 SMCRA amendments, their identifying FBMS subaccount numbers, and any problems that Colorado's financial system may be encountering as a result of the changes. Our review found that Colorado has made adjustments to keep up with all the funding changes that occurred since 2008. At the same time, however, Colorado wants OSM to provide training on the 2006 changes to Title IV of SMCRA and all the resulting funding changes.

Colorado, as an uncertified State, is eligible to receive the following funding under the 2006 amendments and the revised Federal regulations at 30 CFR Part 886:

- prior balance replacement funds (SMCRA Sec. 411(h)(1));

- mandatory State share funds (SMCRA Sec. 402(g)(1)) and historic coal funds (SMCRA Sec 402(g)(5)); and
- minimum program make up funds (SMCRA Sec. 402(g)(8)).

Colorado is not eligible to receive emergency program funding because it does not have an approved emergency abatement program.

Introduction of the new fund types and FBMS subaccount numbers in fiscal year 2008 created some confusion, especially concerning how funds and subaccounts are to be used for coal and noncoal project and administrative costs.

The State experienced some confusion when restrictions were imposed on which grant funds may and may not be used for noncoal projects because some noncoal projects were already underway. As time allowed, DNR changed budget accounts to accommodate the new subaccounts with their allowable uses. Essentially, the State had to change its administration and construction budgets to conform to the subaccounts in the Automated Standard Application for Payments (ASAP) drawdown system of the U.S. Treasury Department. That enables the two budgets to distinguish between coal and noncoal expenditures. ASAP draws are based on the Monthly GPP21 Report, which splits budget expenditures by grant budget line (GBL) per federal funding source for coal and non-coal expenses.

This budget format is very helpful for tracking CIMRP's expenses. The ASAP system, however, breaks-down individual draw-downs instead of keeping a running total of expenditures. This makes it difficult for DNR to compare ASAP account balances with its running balance for CIMRP. Also, DNR has to create new account line numbers for each grant amendment because the FBMS award letter assigns different account numbers for each amendment.

DNR also noted that multiple indirect costs rates cannot be entered in FBMS. Reporting the multiple state fiscal year indirect cost calculation on the FSR and OSM 49 forms is problematic because the system only allows entering the indirect cost rate once.

### **E. Summary Evaluation of Performance Measure 3(c)**

This evaluation determined if State procedures for property procurement, management and disposal of property are effective. We reviewed the Program's inventory records and the process it uses to track purchases and dispose of property. We also reviewed Colorado's procurements of \$5,000 or more under current, open AML grants, records of CIMRP's leased items and contracted services, and property disposal records. The evaluation sample included large purchases CIMRP made during State fiscal years 2007 and 2008. We reviewed the State Inventory Report for Federally Purchased Property, how property records are kept, and State property disposal procedures.

Colorado's DNR follows a Capital Asset Policy for purchases of \$5,000 or more. This policy makes DRMS, which CIMRP is part of, responsible for care and inventory of CIMRP's fixed assets. The Purchasing Department is in charge of reviewing all requisitions requiring procurement actions, especially those that are \$5,000 or above.

DNR has a report that summarizes, by grant, the expended amounts of all materials, supplies and equipment purchased with OSM grant funds. It lists all expenditures by account and object code and includes capital expenditures, office equipment, fees and services. This monthly report shows specific object codes for purchases meeting the capitalization threshold of \$5,000 and for those assets below that threshold.

We found that the CIMRP did not have any assets with a value of \$5,000 or more at the time of our review. It purchased mostly office materials, supplies, and equipment. All purchases must be made through the State procurement system, which requires proper documentation and inventory records of what was purchased. Vehicles are purchased through the State motor pool system. CIMRP does not purchase vehicles with OSM grant funds; it leases them from the State motor pool. CIMRP reports materials and supplies purchases in annual reports to OSM. Our review found that CIMRP made no purchases of \$5,000 or more in the past two years.

The Colorado Surplus Property Policy directs property disposition. That policy determines how surplus property is identified, declared, and handled. CIMRP did not surplus any items valued at \$5,000 or more in the 2007 and 2008 State fiscal years.

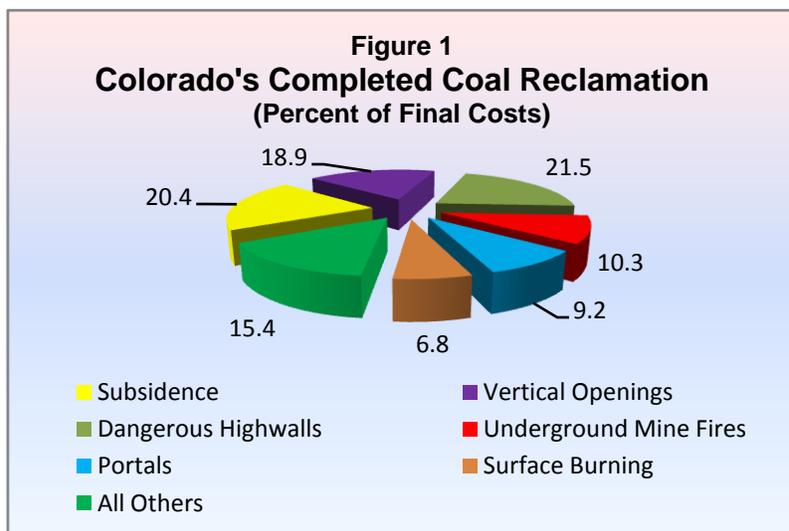
CIMRP follows the State's Capitol Asset Policy whenever it makes any large purchases, including materials, supplies, and contracted services. It rarely makes equipment purchases that exceed \$5,000. All inventory records are kept up to date, and the DNR's grant summary report identifies any capitalized asset purchases by grant.

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

Title IV of SMCRA, as amended, emphasizes reclamation of abandoned coal mine-related problems in uncertified States such as Colorado while allowing limited noncoal reclamation as well. Colorado maintains an inventory of abandoned coal and noncoal mine problems in AMLIS from which CIMRP selects problems to reclaim.

Colorado received funding to reclaim 193 coal projects since OSM approved the State's program on June 11, 1982, excluding cancelled projects. The State spent over \$13.7 million from all sources to abate nineteen types of abandoned coal mine-related problems in those projects since program approval. Colorado's expenditures for coal reclamation to date make up about 35.2 percent of the total amount it spent on coal and noncoal abandoned mine reclamation.

Abating six types of problems required about 87.1 percent of the money from all sources that Colorado spent on coal reclamation so far. Expressed as percentages of final costs, those expenditures were to reclaim: Dangerous highwalls (21.5%); subsidence (20.4%); vertical openings (18.9%); underground mine fires (10.3%); portals (9.2%); and surface burning (6.8%). The State spent the remaining 12.9 percent on 13 other problem types. Figure 1 (right) illustrates these accomplishments and expenditures. Appendix 1 describes them in greater detail, especially those included in “all others” in Figure 1. CIMRP’s costs of abating priority 1, 2, and 3 problems made up about 25.3, 66.2, and 8.5 percent, respectively, of the total final cost of all coal reclamation funded from all sources.

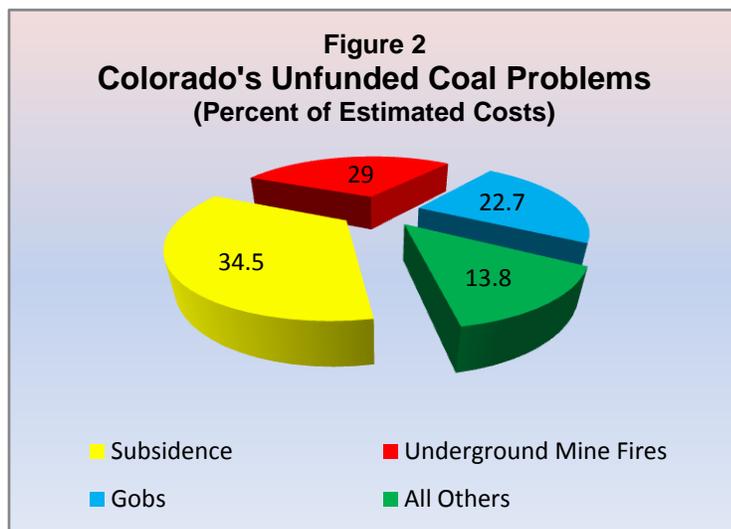


Appendix 2 shows the changes CIMRP made to abandoned coal mine data in AMLIS during the 2009 evaluation period. Those changes include accomplishments from the four coal projects CIMRP completed during this evaluation period. The Program also had five other coal projects underway that were not completed by the end of the period. Changes to the State’s AMLIS data also reflect the change in those projects’ status from unfunded to funded. Colorado’s 2009 grant requests includes funding for eight coal projects, though they are not listed in the application. That brings the total number of coal projects the State requested funding for in its most recent five grants to 24.

The 2006 amendments to SMCRA will provide Colorado with significantly more money to fund abandoned coal mine reclamation, and the State’s AMLIS data show it has much coal work remaining. Colorado continues to inventory over \$37 million in unfunded coal problems in AMLIS just over 27 years after the Secretary approved its program. That is an increase compared to the estimated cost of reclaiming unfunded coal problems reported in 2006, 2007, and 2008. Three problem types comprise about 86.2 percent of the estimated cost of reclaiming those coal problems. As shown in Figure 2 (following page, left) they include subsidence (34.5%), underground mine fires (29%); and gobs (22.7%). Thirteen other types of problems make up the remaining 13.8 percent. They are included as “all others” in Figure 2 and are described in detail in Appendix 1.

Colorado has priority 1, 2, and 3 unfunded coal problems inventoried in AMLIS. The greatest percentages of the total estimated unfunded cost are attributed to priority 2 subsidence, followed by priority 2 underground mine fires, and priority 3 gobs at 34.3,

27.7, and 22.7 percent, respectively. Combined with unfunded priority 3 pits, priority 2

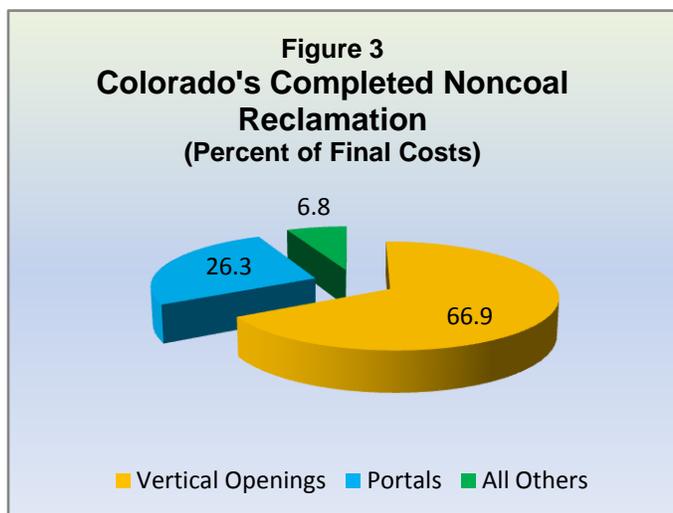


vertical openings, and priority 1 surface burning, these six problems make up about 92.8% of the estimated cost of abating Colorado's unfunded coal problems, based on AMLIS data. As in the 2007 and 2008 evaluation years, we discussed AMLIS data for Colorado's remaining unfunded coal problems in a meeting in the 2009 evaluation year. We again concluded that CIMRP needs to review its AMLIS data to determine what needs to be addressed and if all data currently

in AMLIS should remain there. The Program plans to re-inventory the State's coal problems to verify the data.

As an uncertified State, Colorado continues to address noncoal abandoned mines based on the Governor's requests made under section 409(c) of SMCRA. It spent over \$29.5 million from all sources on noncoal reclamation to date, based on AMLIS data.

The cost of abating noncoal problems comprises about 64.8 percent of the State's total completed reclamation costs to date, including funding from all sources. Vertical openings and portals make up about 93.2 percent of the Colorado's completed noncoal reclamation costs. Figure 3 (right) shows that they make up 66.9 and 26.3 percent of the cost of Colorado's completed noncoal reclamation.



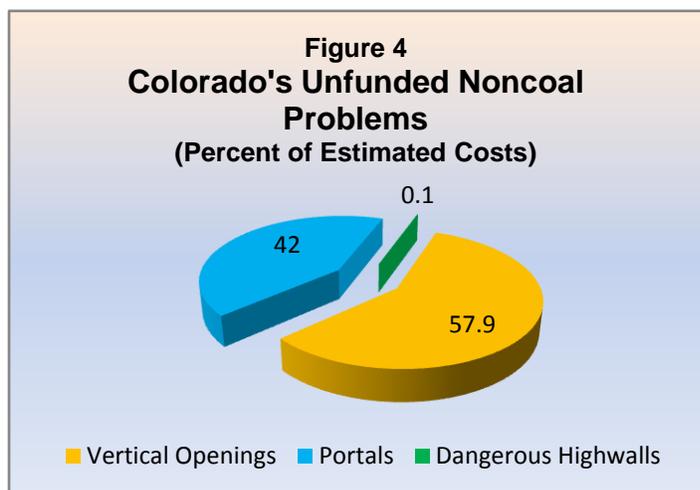
Dangerous piles and embankments, hazardous equipment and facilities, gobs, pits, and subsidence were the other noncoal problems CIMRP

abated to date. They are included as "all others" in Figure 3. The cost of safeguarding priority 1 vertical openings, portals, and dangerous piles and embankments comprised about 57.8, 26.2, and 5 percent, respectively, of the \$29.5 million-plus total final cost of Colorado's noncoal AML reclamation to date. Other completion costs involve priority 2 portals and vertical openings as well as priority 3 gobs and pits. The State reclaimed most of the priority 2 and 3 noncoal problems with funding from non-SMCRA sources. CIMRP continued to partner with other agencies during this evaluation period to abate noncoal problems. That enables the State to leverage its funding with additional, non-

SMCRA funds for more comprehensive reclamation. Appendix 3 shows all the components of CIMRP’s completed noncoal reclamation in more detail.

Excluding cancelled projects, CIMRP received SMCRA grant funding for 242 noncoal projects since OSM began awarding funds for noncoal projects in the State’s 1985 grant. Noncoal projects outnumber coal projects in each of CIMRP’s grant requests for the past 14 years. Colorado’s grants for the most recent 5 years requested funds for a total of 57 noncoal projects, though noncoal projects are not listed in the 2009 grant application. Appendix 4 shows the changes made to Colorado’s noncoal data in AMLIS during the 2009 evaluation year. These changes reflect accomplishments for the 11 noncoal projects CIMRP completed during this evaluation year. The State had four additional noncoal projects underway that were not complete by the end of the period. The changes in AMLIS data shown in Appendix 4 also reflect changes in those projects’ status from unfunded to funded.

Colorado’s inventoried unfunded noncoal problems are dominated by vertical openings and portals. Those two problems (priorities 1 and 2 combined) make up about 99.9 percent of the estimated costs of abating the State’s unfunded noncoal problems. The remaining 0.1 percent of the estimated unfunded cost is associated with a priority 2 dangerous highwall.



Priority 1 vertical openings and portals and priority 2 vertical openings make up about 51.8, 42, and 6 percent of the total estimated cost, respectively. Figure 4 (left) illustrates the percentages that portals, vertical openings, and the dangerous highwall comprise of Colorado’s estimated unfunded noncoal reclamation costs. We note that Colorado does not inventory all its abandoned noncoal mine problems in AMLIS.

**Appendix 1**

## Colorado Inactive Mine Reclamation Program

**Coal Reclamation Accomplishments Since June 11, 1982, and Remaining Reclamation Needs\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Bench	55 acres	\$197,000	0	0	2.5 acres	\$27,290	57.5 acres	\$224,290
Dangerous Highwalls	1,030 feet	\$30,000	0	0	51,992 feet	\$2,955,885	53,022 feet	\$2,985,885
Dangerous Piles & Embankments	0	0	0	0	43.5 acres	\$468,050	43.5 acres	\$468,050
Equipment & Facilities	62 (count)	\$94,000	0	0	7 (count)	\$14,657	69 (count)	\$108,657
Gases: Hazardous/Explosive	0	0	0	0	1 (count)	\$800	1 (count)	\$800
Gobs	457.3 acres	\$8,416,954	25 acres	\$205,753	88.5 acres: SMCRA	\$576,670: SMCRA	570.8 acres: SMCRA	\$9,199,377: SMCRA
					87.5 acres: All Sources	\$576,669: All sources	569.8 acres: All sources	\$9,199,376: All sources
Highwall	0	0	0	0	1,175 feet	\$41,386	1,175 feet	\$41,386
Hazardous Equipment & Facilities	1 (count)	\$2,000	0	0	1 (count)	\$1	2 (count)	\$2,001
Haul Road	4 acres	\$13,000	0	0	0	0	4 acres	\$13,000
Industrial / Residential Waste	3 acres	\$13,000	8 acres	\$84,000	15 acres	\$106,657	26 acres	\$203,657
Mine Openings	212 (count)	\$631,000	3 (count)	\$3,206	18 (count)	\$62,592	233 (count)	\$696,798
Other	26.0	\$101,000	0	0	0	0	26.0	\$101,000
Portals	32 (count)	\$136,060	27 (count): SMCRA	\$101,736: SMCRA	558 (count): SMCRA	\$1,266,680: SMCRA	617 (count): SMCRA	\$1,504,476: SMCRA
			28 (count): All sources	\$130,627: All sources	553 (count): All sources	\$1,266,675: All sources	613 (count): All sources	\$1,533,362: All sources
Pits	93 acres	\$423,100	0	0	63.9 acres: SMCRA	\$233,585: SMCRA	156.9 acres: SMCRA	\$656,685: SMCRA
					61.9 acres: All sources	\$233,584: All sources	154.9 acres: All sources	\$656,684: All sources
Polluted Water: Agric. & Industrial	0	0	1 (count)	\$50,000	3 (count)	\$19,699	4 (count)	\$69,699
Subsidence	178.6 acres	\$12,785,610	49.2 acres	\$1,300,000	52.6 acres	\$2,804,156	280.4 acres	\$16,889,766
Spoil Area	369.6 acres	\$1,348,095	3 acres	\$40,000	97.5 acres	\$183,502	470.1 acres	\$1,571,597

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of July 27, 2009. NOTE: Completed cost of \$1 means that problem type's reclamation was incidental to abating other problem types. Also, numbers do not include Federal emergency program costs.

**Appendix 1 (continued)**

Colorado Inactive Mine Reclamation Program

**Coal Reclamation Accomplishments Since June 11, 1982, and Unfunded Coal Problems Remaining\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Surface Burning	1 acre	\$5,000	5 acres	\$70,000	29.2 acres: SMCRA	\$500,828: SMCRA	35.2 acres: SMCRA	\$575,828: SMCRA
					42 acres: All sources	\$935,165: All sources	48 acres: All sources	\$1,010,165: All sources
Slump	25 acres	\$804,000	0	0	0	0	25 acres	\$804,000
Underground Mine Fire	176.5 acres	\$10,750,000	69 acres	\$2,762,532	182 acres	\$1,413,817	427.5 acres	\$14,926,349
Vertical Openings	36 (count)	\$1,229,967	23 (count)	\$124,895	311 (count): SMCRA	\$2,589,085	370 (count): SMCRA	\$3,943,947
					306 (count): All sources		365 (count): All sources	
Water Problems	24 gal/min	\$22,000	1 gal/min	\$25,000	1 gal/min	\$6,000	26 gal/min	\$53,000
<b>COLORADO TOTAL COSTS</b>		<b>\$37,001,786</b>		<b>\$4,767,122:</b> <b>SMCRA</b>		<b>\$13,271,340:</b> <b>SMCRA</b>		<b>\$55,000,873:</b> <b>SMCRA</b>
				<b>\$4,796,013:</b> <b>All sources</b>		<b>\$13,705,670:</b> <b>All sources</b>		<b>\$55,503,469:</b> <b>All sources</b>

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of July 27, 2009. NOTE: Completed cost of \$1 means that problem type's reclamation was incidental to other abating other problem types. Also, numbers do not include Federal emergency program costs.

**Appendix 2**

**Colorado Inactive Mine Reclamation Program**

**Coal Reclamation Accomplishments and Inventory Changes in the 2009 Evaluation Year\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Gases: Hazardous & Explosive			-1 (count)	-\$3,000	+1 (count)	+\$800	+1 (count)	-\$2,200
Portals			-11 (count): SMCRA	-\$3,900: SMCRA	+10 (count): SMCRA	+\$43,215: SMCRA	-1 (count): SMCRA	+\$39,315: SMCRA
			-10 (count): All sources	+\$24,991	+5 (count): All sources	+\$43,210: All sources	-5 (count): All sources	+\$68,201: All sources
Pits					-2 acres: All sources	-\$1: All sources	-2 acres: All sources	-\$1: All sources
Subsidence			+49.2 acres	+\$1,300,000	+0.7 acre	+\$274,780	+49.9 acres	+\$1,574,780
Spoil Area	+4 acres	+\$62,000	+1 acre	+\$15,000			+5 acres	+\$77,000
Underground Mine Fire			+16 acres	-\$193,000			+16 acres	-\$193,000
Vertical Openings	-2 (count)	-\$10,000	-6 (count)	-\$20,100	+6 (count): SMCRA	+\$105,073	-2 (count): SMCRA	+\$74,973
					+1 (count): All sources		-7 (count): All sources	
<b>COLORADO COAL COST CHANGES</b>		+\$52,000		+\$1,095,000: SMCRA		+\$423,867: SMCRA		+\$1,570,867: SMCRA
			+\$1,123,891: All sources		+\$423,862: All sources		+\$1,599,753: All sources	

\* This table is based on a comparison of Problem Type Unit and Cost Summary Reports from the Abandoned Mine Land Inventory System as of July 22, 2008, and July 27, 2009. Except where noted, data changes for coal accomplishments and costs shown are the same whether reported as SMCRA-funded only or as funded by all sources.

**Appendix 3**

Colorado Inactive Mine Reclamation Program

**Noncoal Reclamation Accomplishments Since June 11, 1982, and Unfunded Noncoal Problems Remaining\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls	1.0 foot	\$5,000	0	0	1,315 feet	\$131,339	1,316 feet	\$136,399
Dangerous Piles & Embankments					60 acres	\$1,536,512	60 acres	\$1,536,512
Gobs	0	0	0	0	3 acres	\$78,250	3 acres	\$78,250
Hazardous Equipment & Facilities	0	0	0	0	13 (count)	\$214,669	13 (count)	\$214,669
Industrial/Residential Waste	0	0	1 acre	\$20,000	0	0	1.0 acre	\$20,000
Portals	3,556 (count)	\$18,409,220	162 (count): SMCRA	\$779,113: SMCRA	2,675.5 (count): SMCRA	\$7,579,075: SMCRA	6,386 (count): SMCRA	\$26,731,661: SMCRA
			240.5 (count): All sources	\$1,329,609: All sources	2,860.5 (count): All sources	\$7,782,276: All sources	6,650 (count): All sources	\$27,485,358: All sources
Pits	0	0	0	0	2 acres	\$12,000	2 acres	\$12,000
Subsidence	0	0	0	0	3 acres	\$10,661	3 acres	\$10,661
Vertical Openings	4,348.5 (count): SMCRA	\$22,714,646: SMCRA	193.5 (count): SMCRA	\$774,090: SMCRA	4,126.5 (count): SMCRA	\$16,955,313: SMCRA	8,668.5 (count): SMCRA	\$40,444,049: SMCRA
	4,883.5 (count): All sources	\$25,386,146: All sources	237 (count): All sources	\$970,947: All sources	4,806 (count): All sources	\$19,772,827: All sources	9,926.5 (count): All sources	\$46,129,920: All sources
<b>COLORADO TOTAL COSTS</b>		<b>\$41,128,866: SMCRA</b>		<b>\$1,573,203: SMCRA</b>		<b>\$25,197,779: SMCRA</b>		<b>\$67,864,101: SMCRA</b>
		<b>\$43,800,366: All sources</b>		<b>\$2,320,556: All sources</b>		<b>\$29,538,594: All sources</b>		<b>\$75,623,769: All sources</b>

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of July 27, 2009. AMLIS does not include a complete inventory of Colorado's unfunded noncoal problems.

**Appendix 4**

**Colorado Inactive Mine Reclamation Program**

**Noncoal Reclamation Accomplishments and Inventory Changes in the 2009 Evaluation Year\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls					+1,315 feet	+\$131,399	+1,316 feet	+\$131,399
Portals	-74 (count):	-\$274,954	+56.5 (count): SMCRA	+\$533,938	+69 (count): SMCRA	+\$240,119: SMCRA	+51.5 (count): SMCRA	+\$272,647: SMCRA
			+98 (count): All sources		+101 (count): All sources	+\$320,481: All sources	+125 (count): All sources	+\$579,465: All sources
Vertical Openings	-57 (count)	-\$281,790	+86 (count): SMCRA	+\$510,002	+102 (count): SMCRA	+\$452,889: SMCRA	+131 (count): SMCRA	+\$520,190: SMCRA
			+118 (count): All sources		+144 (count): All sources	+\$536,209: All sources	+205 (count): All sources	+\$764,421: All sources
<b>COLORADO NONCOAL COST CHANGES</b>				<b>+\$656,573: SMCRA</b>		<b>+\$694,187: SMCRA</b>		<b>+\$794,016: SMCRA</b>
		<b>-\$556,744</b>		<b>+\$1,044,060: All sources</b>		<b>+\$988,089: All sources</b>		<b>+\$1,275,285: All sources</b>

\* This table is based on a comparison of Problem Type Unit and Cost Summary Reports from the Abandoned Mine Land Inventory System as of July 22, 2008, and July 27, 2009. Except as noted, noncoal accomplishments and costs shown are the same whether reported as SMCRA-funded only or as funded by all sources.

## Appendix 5

### State Comments on the Report

From: Pineda, Loretta [Loretta.Pineda@state.co.us]  
Sent: Friday, September 04, 2009 3:42 PM  
To: Sassaman, Ronald  
Cc: Fulton, James  
Subject: Colorado Comments

Appendix 5  
Annual Summary Evaluation  
Evaluation Year 2009

Colorado Comments on Report:

The Annual Summary Evaluation for Colorado's Inactive Mine Reclamation Program for 2009 reflects a continued team effort and total cooperation between the Office of Surface Mining and State of Colorado. The CIMRP continues to improve reporting and requirements to satisfy performance measures and all our responsibilities under SMCRA. The report reflects the improvements we are making to update AMLIS and our close-out reports. The continued challenge here is the configuration of AMLIS and adjustments that must be made to that data system in order for it to be modernized. The report also highlights the need for some changes to our plan in order to reflect the active public participation activities and responsibilities that we currently undertake. We appreciate all the suggestions and recommendations made.

Once again I want to thank my team members for compiling the report.

Loretta E. Pineda  
Division of Reclamation, Mining and Safety  
1313 Sherman Street, Room 215  
Denver, CO 80203  
303-866-3567 X 8135 -- office  
303-257-2501 -- cell  
303-832-8106 -- FAX  
loretta.pineda@state.co.us