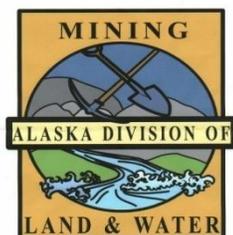


**ANNUAL SUMMARY EVALUATION**  
of the  
**ALASKA ABANDONED MINE LANDS RECLAMATION PROGRAM**  
for  
**EVALUATION YEAR 2010**  
(July 1, 2009, through June 30, 2010)



July 28, 2010



## TABLE OF CONTENTS

I.	Introduction .....	2
II.	General Information on the Alaska Program.....	3
III.	Noteworthy Accomplishments .....	4
IV.	Results of Enhancement and Performance Review .....	4
V.	Accomplishments and Inventory Reports .....	12
Appendix 1		
	Coal Reclamation Accomplishments Since December 23, 1983, and Unfunded Coal Problems Remaining.....	16
Appendix 2		
	Coal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year.....	17
Appendix 3		
	Noncoal Reclamation Accomplishments Since December 23, 1983, and Unfunded Noncoal Problems Remaining.....	18
Appendix 4		
	Noncoal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year .....	19
Appendix 5		
	State Comments on the Report.....	20

**Cover photo:** Overview of the Jonesville Fire Phase 1 and 2, Jonesville Fire Phase 1 maintenance and Phase 1 road maintenance project areas and Slipper Lake (all in the center) and part of the North Jones Phase 3 project area (foreground), all of which were also included in the Jonesville seeding and fertilizing project (foreground). June 7, 2010.

## ACRONYMS

AAMLRP	Alaska Abandoned Mine Lands Reclamation Program
AKSAS	Alaska Statewide Accounting System
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation

ASAP	Automated Standard Application for Payments
BLM	Bureau of Land Management (of the U.S. Dept. of the Interior)
DEC	Alaska Department of Environmental Conservation
DFD	Denver Field Division (of the Office of Surface Mining)
DNR	Alaska Department of Natural Resources
DMLW	Division of Mining, Land and Water (of the Alaska DNR)
FAM	Federal Assistance Manual
FBMS	Federal Business Management System
NPS	National Park Service (of the U.S. Dept. of the Interior)
OIG	Office of the Inspector General (of the U.S. Dept. of the Interior)
OSM	Office of Surface Mining Reclamation and Enforcement (of the U.S. Dept. of the Interior)
PAD	Problem Area Description (in AMLIS)
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”), 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 abandoned mine land (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 for their administration costs and abandoned mine reclamation. SMCRA puts the highest priority on correcting the most serious AML problems that endanger public health, safety, and property. As amended, it also allows certain lower priority problems to be addressed if they’re 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 monitor 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 has been evaluating the Alaska

Abandoned Mine Lands Reclamation Program (AAMLRP) since January 1996. The team includes representatives of AAMLRP and OSM's Denver Field Division (DFD). It also includes other individuals on an ad-hoc basis as needed. In the 2010 evaluation year, Roger Alley and Justin Ireys, AAMLRP, helped with the 1(a) performance measure evaluation. Joe Wehrman, AAMLRP Manager, participated in the 2(e) and 2(i) performance measure evaluations. Diane Houston, AAMLRP, and Frank Atencio, OSM-DFD, evaluated the 3(h) performance measure. Ron Sassaman represented OSM-DFD for the 1(a), 2(e), and 2(i) performance measure evaluations and wrote this report.

This report summarizes our reviews and evaluations of the Alaska Abandoned Mine Lands Reclamation Program for the 2010 evaluation year, which included the period of July 1, 2009, through June 30, 2010.

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

On December 23, 1983, the Secretary of the Interior approved Alaska's AML reclamation plan ("State reclamation plan") under Title IV of SMCRA. That approval allows the State to reclaim non-emergency AML projects. Effective November 16, 1992, the Secretary approved Alaska's AML emergency response reclamation program. AAMLRP is part of the Division of Mining, Land and Water in the Department of Natural Resources (DNR). It administers Alaska's AMLR Program under the State's approved plan. The Denver Field Division of OSM's Western Region works with AAMLRP to fund and approve AML projects in Alaska 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. OSM awards grants to AAMLRP to fund the Program's administration costs for the period of July 1<sup>st</sup> of one year through June 30<sup>th</sup> of the following year. The same grants award construction funding that's available to the Program during the same period for each of three years after the initial grant award date. Alaska has not yet certified under section 411(a) of SMCRA that it completed reclamation of its known abandoned coal mine problems.

Alaska's 2008 AML grant award totaled \$1,750,000. The 2008 grant includes \$25,000 for emergency coal reclamation and supported program administration and 3.75 full-time equivalents for one year. The State's grant funds two, and possibly three coal projects. It also funds possibly one or more noncoal projects included in the Governor's 2007 and 2008 requests under section 409(c) of SMCRA. The 2008 grant expires on June 30, 2011.

OSM awarded AAMLRP a total of \$1,723,541 in the 2009 grant. Alaska's 2009 grant didn't request emergency program funding. The 2009 grant funded 3.75 full-time equivalents and program administration for one year. The grant's construction funding request briefly described tentative work the Program would do at four abandoned coal

mine areas and kept open the option of working on one or two abandoned noncoal mines included in past 409(c) letters. Alaska's 2009 grant expires on June 30, 2012.

The State's 2010 AML grant award included a total of \$2,389,351 for the period of July 1, 2009, through June 30, 2013. It funds 3.5 full-time equivalents and costs of administering the program for one year. The 2010 grant includes funding to reclaim up to three coal projects and one or two unspecified noncoal projects that were included in past Governors' 409(c) letters.

No AML emergencies were reported in Alaska during the 2010 evaluation year.

Alaska does not have an OSM-approved subsidence insurance protection program.

### **III. Noteworthy Accomplishments**

In 2009, OSM awarded to AAMLRP a Small Project Award for the Suntrana Tipple project located near Healy. Small project awards recognize excellence in reclaiming abandoned mines. They are reserved for States or Indian tribes that receive less than \$6 million annually in AML funding from OSM and for projects that cost less than \$1 million.

AAMLRP helped to host the 2009 Northern Latitudes Mining Reclamation Workshop on behalf of the Alaska Department of Natural Resources. Its co-hosts included Natural Resources Canada, Indian and Northern Affairs Canada, the Yukon Geological Survey, the Yukon Chamber of Mines, and the Yukon Government. The workshop took place from September 8 through 11, 2009, in Yellowknife, Northwest Territories, Canada. An AAMLRP staff member gave a presentation about geospatial applications at the workshop.

AAMLRP partnered with a Florida landscaper and inmates from the Palmer Correctional Center to improve moose browse and erosion control at the North Jones Phase 3 project area near Sutton. They planted willow cuttings and lined a channel with willow bundles from among 360,000 cuttings the landscaper donated. The Anchorage Daily News published an article about the willow planting work on June 29, 2010.

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

We updated the "Alaska AML Evaluation Team Performance Agreement" to describe the principles of excellence and performance measures that we planned to review in the 2010 evaluation year. We finalized that update on November 9, 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'll do the review and report the results; and our schedule for completing the review. The principles of

excellence and specific performance measures we chose for our 2010 evaluation of the Alaska Abandoned Mine Lands 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 program procedures are efficient and effective.

- *Performance Measure (e):* Does the information the State entered into the Abandoned Mine Land Inventory System (AMLIS) beginning July 1, 2004, agree with information in its files?
- *Performance Measure (i):* How is the State planning to address unfunded coal problems in AMLIS?

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

- *Performance Measure (h):* Are the State's drawdowns of AML grant funds in accordance with the requirements of Chapter 5-55 of the Federal Assistance Manual (FAM)?

Results of our 2010 evaluation are described below in Parts IV.A through D. 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 factual basis of this report's summary of our evaluations of performance measures 1(a), 2(e), 2(i), and 3(h).

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

This evaluation determined if reclamation of sample projects met project goals. We selected this topic because the overriding goal of the Abandoned Mine Reclamation Program is reclamation success. We previously reviewed this topic in the 2008 evaluation year. The final evaluation sample included the Jonesville Phase 1 maintenance and Phase 1 road maintenance, Jonesville seeding and fertilizing, North Jones Phase 8 shaft closures, Gold Stamp, and Suntrana tipple removal projects. All the sample projects were complete.

This evaluation empirically compared AAMLRP's reclamation to its project specifications to determine if projects met their goals. Specifications for the sample projects include construction methods that effectively abate abandoned mine-related health and safety hazards while improving site conditions overall. AAMLRP's project closeout reports and the periodic e-mail progress updates it submitted to OSM throughout the evaluation year provided additional information that helped with the field reviews and writing this report. We also considered measures AAMLRP approved in change orders during

construction to address site-specific conditions and any requirements resulting from interagency consultation it completed to help OSM comply with the National Environmental Policy Act (NEPA) and other laws. We agreed the completed projects met their goals if abatement and reclamation measures were intact and functional and if no problems compromising those measures were apparent. We also agreed that site conditions were improved overall if hazards to public health and safety were abated and if reclamation reduced environmental problems such as erosion and sedimentation while promoting revegetation.

Our evaluation made the following findings:

1. The Jonesville Fire phase 1 maintenance addressed an estimated 4 acres of coal spoils in an area impacted by erosion, sedimentation, and poor drainage;
2. Work completed in the Jonesville fire phase 1 road maintenance addressed drainage and sedimentation from the North Jones mine road that impacts Slipper Lake and public use of the recreation area;
3. AAMLRP's Jonesville seeding and fertilizing supplemented prior revegetation efforts at the Jonesville Fire Phase 1 and 2 projects and the North Jones phase 3 project. Project goals included improving vegetative cover and wildlife forage and reducing erosion and sedimentation;
4. The entire area addressed in the various Jonesville Fire projects and subsequent Jonesville maintenance projects is a public recreation area with all the impacts attendant to that use. Nevertheless, AAMLRP's completed work appeared to be effectively controlling erosion and sedimentation overall;
5. One part of AAMLRP's North Jones Phase 8 shaft closures project reclaimed two vertical openings. The other part involved constructing barriers to prevent people from driving off the rim of highwalls and from hauling large refuse items to the base of sloughing highwalls in nearby pits. The closures and barriers were intact and functional;
6. AAMLRP's Gold Stamp project closed one vertical opening. The snow-covered closure appeared to be intact and functional;
7. The Suntrana tipple removal project involved demolishing a tipple and a bridge. AAMLRP also decommissioned 11 monitoring wells around the tipple site with approval from the State's Department of Environmental Conservation. The reclaimed area appeared to be in good condition overall.

Based on our findings, we reached the following conclusions:

1. The Jonesville Fire Phase 1 maintenance and Phase 1 road maintenance projects met their goals;

2. The Jonesville seeding and fertilizing project fulfilled the contract. However, we'll have to wait at least one growing season or more before we can determine if seeding and fertilizing meet the goals of improving vegetative cover and wildlife forage and reducing erosion and sedimentation; and

3. The North Jones Phase 8, Gold Stamp, and Suntrana tibble removal projects met their goals.

Based on our findings and conclusions, we recommended that:

1. We look at the Jonesville Fire and North Jones 3 areas after a few growing seasons to see how the vegetation is doing after the supplemental seeding and fertilizing; and

2. AAMLRP monitor the reclaimed Suntrana tibble site periodically when in the area to see if drainage that flows across the area causes erosion problems that need to be addressed before vegetation can become reestablished.



Photos comparing the site of the Suntrana tibble, bridge, grizzly, and other structures before reclamation in May 2005 (left), to the site after reclamation on June 9, 2010 (right).

## **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 AMLIS data for four eastern States' AML programs. That report criticized the accuracy of 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."

In response to that recommendation, we developed performance measure 2(e) to require an annual comparison of data in a sample of Alaska's AMLIS PADs to data in Alaska's files to ensure that they agree. AAMLRP uses data from the Alaska Statewide

Accounting System (AKSAS) and its project managers to complete its project closeout reports and update AMLIS. We consider the project closeout reports to be AAMLRP's "system" for ensuring that completion data Alaska enters into AMLIS match data in its files. We compared data in one project closeout reports to data in that project's respective PAD.

We also considered other AMLIS requirements for this evaluation. State and Indian tribal AML programs help OSM maintain an inventory of abandoned mine land problems. They are required to update PADs in AMLIS when OSM approves funding for individual reclamation projects and upon project completion. Those programs also are required to complete priority documentation forms to support the priorities they assign to AML problems in PADs.

The evaluation sample included one noncoal project and its AMLIS PAD.

Our review found the following:

1. AAMLRP updated the AMLIS PAD with completion data for the sample project;
2. AAMLRP completed a closeout report for the sample project;
3. AAMLRP completed a priority documentation form for the sample project; and
4. Our first review of the revised closeout report and updated PAD found four discrepancies. AMLRP immediately corrected the closeout report and PAD and we reviewed them again. We then found that data in the revised sample project closeout report matched data in the respective AMLIS PAD.

Based on these findings, we reached the following conclusions:

1. AAMLRP formatted information in the sample project closeout report consistent with formatting improvements it made in the 2007 evaluation year;
2. AAMLRP updated the sample AMLIS PAD upon project completion as required at 30 CFR 886.21(c); and
3. Based on this and previous evaluations, AAMLRP's use of project closeout reports to ensure that data in its files match AMLIS PAD data improves when checked afterward with a detailed comparison of those data.

Based on our findings and conclusions, we recommended that:

1. AAMLRP do a detailed comparison of data in project closeout reports to completion data in those projects' respective AMLIS PADs to ensure that the data match.

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

Our evaluation of this performance measure looked at how the State is planning to address unfunded coal problems that are in AMLIS. We developed this new performance measure in response to OSM's increased emphasis on addressing unfunded coal problems that are inventoried in the Abandoned Mine Land Inventory System (AMLIS). Our previous evaluations of Alaska's coal reclamation didn't look specifically at Alaska's plans to address remaining unfunded coal problems.

The population and sample for this evaluation included information available that describes Alaska's current plans to address unfunded coal problems in AMLIS. We considered: Projects funded in active grants; AMLIS data for unfunded coal problems; AAMLRP's projected coal reclamation timeline; updates on the status of projects AAMLRP has authorization to proceed with and is planning; AMLIS PADs; contingent upon funding" contracts and different reclamation methods AAMLRP plans to use to reduce costs; and the amount of noncoal reclamation AAMLRP funds relative to coal reclamation. We also considered AAMLRP's limited funding and the size and estimated expense of reclaiming Alaska's remaining inventoried coal problems.

Though not required, AAMLRP submitted a timeline describing the projects it tentatively plans to reclaim up to July 1, 2023. We recognize that projected reclamation timelines are for general planning purposes only and are subject to change. Also, whether or not future reclamation projects will be approved was beyond the scope of this evaluation.

In general, we found that AAMLRP is planning to address most of the unfunded coal problems Alaska currently inventories in AMLIS. Specifically, we found that:

1. AAMLRP has authorization to proceed (ATP) for a coal wash plant demolition project that it's unlikely to complete because a coal mining company is working to permit and bond the wash plant instead;
2. OSM issued an ATP for another coal project that began shortly after the beginning of the 2011 evaluation period and is almost complete. That project addressed priority 2 hazardous equipment and facilities. It's the first part of the coal problems AAMLRP plans to address under that PAD;
3. The Program worked on other coal projects during the 2010 construction season. All were included in our evaluation of the 1(a) performance measure summarized in Part IV.A of this report;
4. The State's longer-term planning includes five other abandoned coal mine areas. AAMLRP will use "contingent upon funding" contracts to the extent allowed and phased reclamation because the estimated cost of reclaiming those areas exceeds Alaska's currently available and projected funding. AAMLRP also is considering non-standard reclamation methods to minimize costs and maximize accomplishments;

5. AAMLRP's tentative timeline didn't include unfunded problems in two coal PADs currently in AMLIS and its plans for these problem areas are uncertain. One PAD includes priority 2 and 3 problems and the other includes only priority 3 problems. As a practical matter, AAMLRP is focusing on addressing priority 1 and 2 coal hazards, which will require most of the SMCRA funding Alaska receives; and

6. AAMLRP's tentative noncoal reclamation timeline is limited to doing some small noncoal projects included in previous years' Governors' 409(c) requests. Barring unforeseen events, the tentative timeline calls for no other noncoal reclamation until after mid-2019. AAMLRP currently has authorizations to proceed for two noncoal projects, both of which are in the Wrangell-St. Elias National Park and Preserve. One is too risky to close at present and is being monitored. The other is scheduled for construction sometime in 2010.

Based on these findings, we reached the following conclusions:

1. AAMLRP's tentative timeline includes over 98 percent of the State's remaining unfunded coal problems that are inventoried in AMLIS, and limited noncoal problems;
2. AAMLRP is exploring different ways of addressing Alaska's remaining coal problems within current and projected funding constraints;
3. If the coal wash plant is permitted and bonded under the State's regulatory program, it will no longer compete for AAMLRP's limited funding; and
4. AAMLRP will continue coal reclamation in the 2010 construction season.

Based on our findings and conclusions, we recommended that:

1. As planned, AMLRP determine if the unfunded priority 2 and 3 problems in two AMLIS PADs not presently included in its timeline still pose problems that need to be abated. If they do, AAMLRP will include them in the tentative planning timeline; and
2. As planned, AAMLRP monitor the wash plant permitting and bonding. If those efforts are successful, AAMLRP will shift that project's funding to another project. If not, the project will proceed as soon as practicable.

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

This evaluation determined whether the State draws-down AML grant funds in accordance with requirements of Chapter 5-55 of the Federal Assistance Manual (FAM). This was our second evaluation of this performance measure for Alaska. However, it differed from the previous evaluation by focusing more on determining if Alaska draws-down funds for coal and noncoal use in compliance with the 2006 SMCRA Amendments, which govern how different grant funds may be used. Our review sample included drawdown reports from fiscal years 2008 and 2009.

The State operates on a cash reimbursement basis. It spends its own funds before drawing-down Federal funds. Alaska pays all costs up-front through the State's accounting system and then is reimbursed for the amount it paid out for program expenses. The Alaska Division of Mining, Land and Water doesn't keep a cash balance on hand before paying out Federal funds.

AAMLRP submits monthly billing reports to the Alaska Department of Revenue, Treasury Division, Cash Management Section, in Juneau for reimbursement. The reports show all amounts expended by subaccount, including AML Administrative, AML Construction, and AML Emergency. The State's Department of Revenue then submits a payment request to the Federal Government through OSM's Automated Standard Application for Payment (ASAP) Draw Down system.

The Alaska State Accounting System (AKSAS) tracks all costs for individual projects and services. This system keeps a running total of all direct and indirect charges for each program budget cost. Expenditures are subtracted and the unencumbered, updated balances are provided to the AAMLRP Manager on a monthly basis. This report provides AAMLRP with a monthly update of how much money each active account has available for future drawdown purposes.

Alaska keeps an expense ledger that contains a multi-year breakdown of all coal and non-coal projects that AAMLRP completed or has in progress. All construction project subaccounts are assigned a coal or non-coal code that's tied-in with the State's construction budget appropriation number. Each project is assigned a funding amount for its estimated cost. The expense ledger keeps a running unencumbered balance for each project. That tells AAMLRP's project managers how much money is available to complete each project. All coal and non-coal totals are kept separate.

Both coal and non-coal administrative budget lines identify the type of service that funding provides from the amount budgeted. The total draw-down amount can be provided for coal-only and non-coal costs. It's easy to discern coal versus non-coal costs because AAMLRP works primarily on coal projects.

We found that Alaska's accounting system documents how funds are being drawn to pay for all program approved costs. The State keeps adequate records of how it uses funds according to the restrictions in the 2006 SMCRA Amendments. Funds OSM awards for coal-only administrative and construction costs are sorted out and are easily identifiable. Cumulative cash draw-down amounts also are easily correlated to individual budget line items.

Based on our findings, we concluded that the Division of Mining, Land and Water Management maintains a financial drawdown system that complies with Federal and State requirements, including Chapter 5-55 of the FAM and the 2006 SMCRA Amendments.

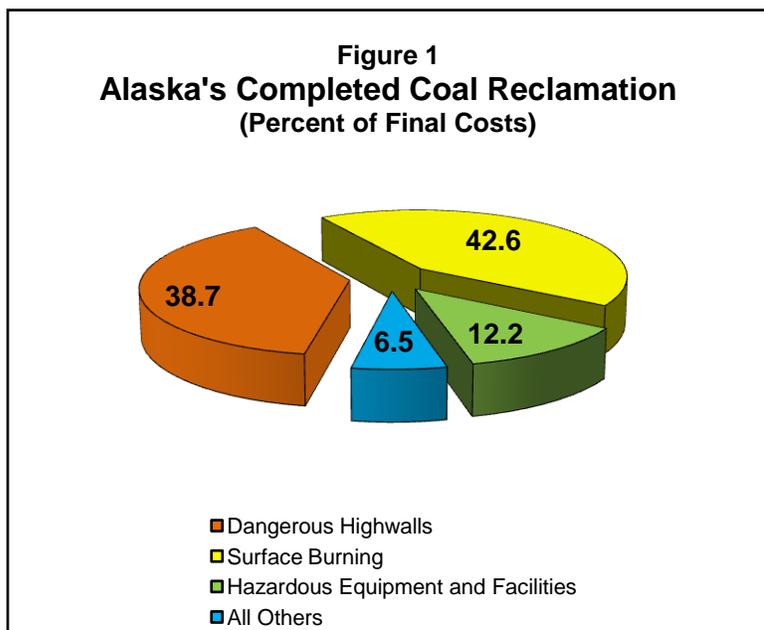
## V. Accomplishments and Inventory Reports

As amended on December 20, 2006, Title IV of SMCRA emphasizes uncertified programs' reclamation of abandoned coal mine-related problems. SMCRA also still allows limited reclamation of abandoned noncoal mine-related problems. AAMLRP maintains an inventory of abandoned coal and noncoal mine problems in AMLIS from which it selects problems to reclaim. The Governor requests grant funds to abate priority 1 noncoal mine hazards under section 409(c) of SMCRA. Alaska's expenditures on coal and noncoal AML reclamation since the Secretary approved the State's program approval in late 1983 total \$17,697,777 from all sources, based on AMLIS data.

As shown in Appendix 1, AAMLRP spent over \$16.6 million to reclaim abandoned coal mine problems between late 1983 and July 16, 2010. This is an increase of more than \$100,000 since we reported on Alaska's program in 2009. The increase reflects AAMLRP's abatement of coal hazards associated with dangerous highwalls and vertical openings. Appendix 2 shows that increase in more detail. The increase also reflects slight adjustments in AMLIS data. We note that AAMLRP has not yet been able to update AMLIS for all its coal-related reclamation accomplishments for the 2010 evaluation year, in part due to the ongoing AMLIS upgrade and the relatively recent completion of some of that work. Overall, however, AAMLRP's coal-related expenditures make up about 93.4 percent of the funds it received from all sources that it spent on abandoned mine reclamation to date.

Figure 1 (right) illustrates AAMLRP's completed reclamation of priority 1, 2, and 3 coal problems as percentages of final costs, based on AMLIS data. Surface burning, dangerous highwalls, and hazardous equipment and facilities required about 93.5 percent of AAMLRP's expenditures on coal-related reclamation so far. That reclamation addressed 10,370 linear feet of dangerous highwalls, 47 acres of surface burning, and 1,481 remnants of hazardous equipment and facilities. Appendix 1 gives more details about Alaska's completed coal reclamation. It also lists the completed units and final costs associated with

AAMLRP's abatement of ten types of coal problems that Figure 1 combines into "all others." Those "other" problems include: Dangerous impoundments; dangerous piles



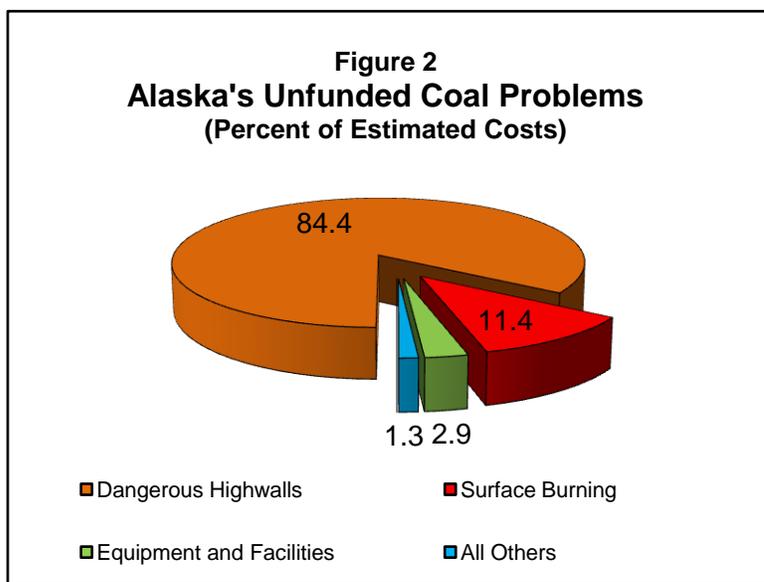
and embankments; gobs; hazardous water bodies; industrial/residential waste; portals; subsidence; spoil areas; slumps; and vertical openings.

AAMLRP worked on four coal projects during the 2010 evaluation period. Our evaluation of the 1(a) performance measure included all of them and is summarized in Part IV.A of this report. Those projects included the North Jones Phase 6 fire drilling, Jonesville Fire Phase 1 road maintenance, North Jones Phase 8 shaft closures/barriers, and Jonesville seeding and fertilizing projects. AAMLRP also started a fifth coal project just after the end of the 2011 evaluation year.

AMLIS data show that the estimated cost of addressing Alaska’s remaining, unfunded coal problems is over \$59.2 million. That amount is a decrease of \$259,000 from the estimated cost of abating the State’s unfunded coal problems taken from AMLIS data shortly after the end of the 2009 evaluation year. It reflects reclamation AAMLRP funded and completed since then. Appendix 2 shows that decrease, and the offsetting increases in funded and completed reclamation costs and accomplishments, in more detail.

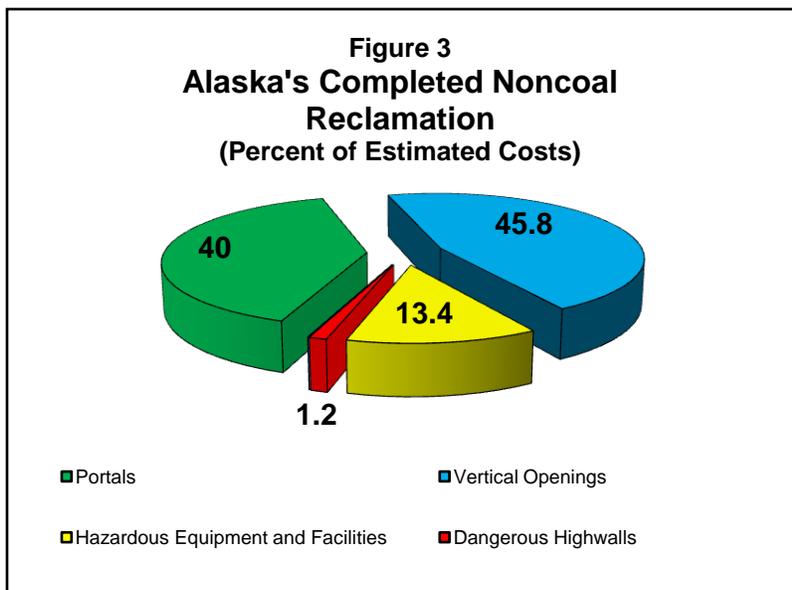
As with Alaska’s completed coal reclamation, dangerous highwalls and surface burning are two problem types that figure prominently in the State’s remaining inventory of unfunded coal problems.

Those two problems and priority 3 equipment and facilities make up about 98.7 percent of Alaska’s unfunded coal problems of all priorities, as shown in Figure 2 (above right). The remaining 1.3 percent, shown as “all others” in Figure 2, includes: Dangerous piles and embankments; hazardous equipment and facilities; hazardous water bodies; and lower priority mine openings and haul roads.



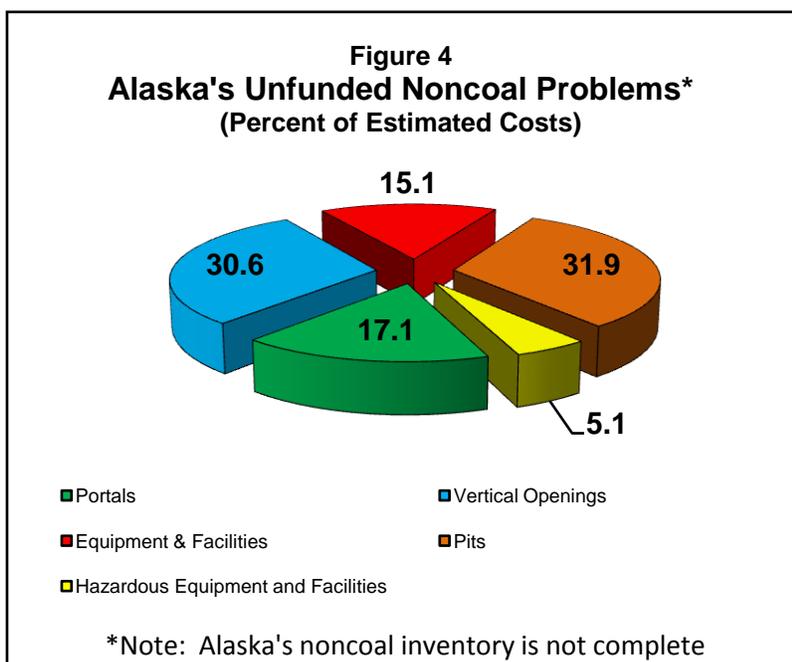
AAMLRP focuses most of its reclamation on priority 1 and 2 coal problems, as noted in Part IV.C of this report. That’s appropriate because about 96.9 percent of the estimated cost of reclaiming Alaska’s remaining coal problems is associated with unfunded priority 1 and 2 problems. Unfunded priority 3 problems make up the remaining 3.1 percent. Appendix 1 shows Alaska’s remaining unfunded coal problems and the estimated costs of addressing them in more detail.

As we noted in Part IV.C of this report, the State continues to fund abatement of a limited number of priority 1 abandoned noncoal mine hazards based on the Governor's requests under section 409(c) of SMCRA. Many of those noncoal problems are on public lands. AAMLRP routinely partners with other agencies, including public land management agencies, to address noncoal abandoned mine problems. That partnering enables it to leverage its funding and abate a wider range of noncoal problems. Since late 1983, AAMLRP spent \$1,080,240 from all sources on noncoal abandoned mine reclamation. It used about 99.9 percent of that amount to address four noncoal problems, including: Vertical openings; portals; hazardous equipment and facilities; and dangerous highwalls. Figure 3 (above, left) illustrates those expenditures. AAMLRP safeguarded a vertical opening in the Gold Stamp noncoal project in the Chugach National Forest during the 2010 evaluation year in cooperation with the U.S. Forest Service. Appendix 3 gives more details on the final costs and accomplishments of Alaska's noncoal reclamation to date.



public lands. AAMLRP routinely partners with other agencies, including public land management agencies, to address noncoal abandoned mine problems. That partnering enables it to leverage its funding and abate a wider range of noncoal problems. Since late 1983, AAMLRP spent \$1,080,240 from all sources on noncoal abandoned mine reclamation. It used about 99.9 percent of that amount to address four noncoal problems, including: Vertical openings; portals; hazardous equipment and facilities; and dangerous highwalls. Figure 3 (above, left) illustrates those expenditures. AAMLRP safeguarded a vertical opening in the Gold Stamp noncoal project in the Chugach National Forest during the 2010 evaluation year in cooperation with the U.S. Forest Service. Appendix 3 gives more details on the final costs and accomplishments of Alaska's noncoal reclamation to date.

Alaska maintains a partial inventory of its unfunded noncoal abandoned mine problems in AMLIS. AMLIS data show that addressing Alaska's inventory of unfunded noncoal problems is estimated to cost \$627,000. As shown in Figure 4 (left), Alaska's inventoried, unfunded noncoal problems include priority 1 hazardous equipment and facilities, portals, and vertical openings. They make up about 52 percent of the estimated total cost of reclaiming inventoried noncoal problems. The remaining 48 percent is associated with priority 3 equipment and facilities and



Alaska's inventoried, unfunded noncoal problems include priority 1 hazardous equipment and facilities, portals, and vertical openings. They make up about 52 percent of the estimated total cost of reclaiming inventoried noncoal problems. The remaining 48 percent is associated with priority 3 equipment and facilities and

pits. More detailed information about Alaska's unfunded noncoal problems can be found in Appendix 3.

The estimated \$627,000 total cost of addressing Alaska's unfunded noncoal problems is a decrease of \$34,000 from those data reported around the same time in 2009. The decrease reflects, in part, AAMLRP's removal of one small noncoal PAD so far from AMLIS. It also reflects completion of the Gold Stamp project and adjustments to AMLIS data for noncoal projects that are funded in cooperation with the National Park Service but that aren't reclaimed yet. AAMLRP is reviewing its noncoal AMLIS data and consulting with Federal agencies to determine if they can assume more of the burden of addressing abandoned noncoal mines on lands they manage. Appendix 4 shows the changes AAMLRP made to AMLIS data for unfunded, funded, and completed noncoal problems during the 2009 evaluation year.

**Appendix 1**

## Alaska Abandoned Mine Lands Reclamation Program

**Coal Reclamation Accomplishments Since December 23, 1983, and Unfunded Coal Problems Remaining\***

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls	19,750 feet	\$49,977,109	0	\$14,000	10,370 feet	\$6,425,380	30,120 feet	\$56,416,489
Dangerous Impoundments	0 (count)	0	0	0	4 (count)	\$79,362	4 (count)	\$79,362
Dangerous Piles & Embankments	5 acres	\$150,000	0	0	3.5 acres	\$12,959	8.5 acres	\$162,959
Equipment & Facilities	7 (count)	\$1,750,000	0	0	0	0	7 (count)	\$1,750,000
Gobs	0	0	0	0	1.5 acres	\$7,500	1.5 acres	\$7,500
Hazardous Equipment & Facilities	0	0	170	\$2,175,000	1,481 (count)	\$2,032,851	1,651 (count)	\$4,207,851
Haul Road	5 acres	\$17,500	0	0	0	0	5 acres	\$17,500
Hazardous Water Body	1	\$500,000	0	0	2 (count)	\$123,640	3 (count)	\$623,640
Industrial / Residential Waste	0	0	0	0	4 acres	\$266,370	4 acres	\$266,370
Mine Openings	1 (count)	\$75,000	0	0	0	0	1 (count)	\$75,000
Portals	0	0	0	0	6 (count)	\$37,035	6 (count)	\$37,035
Subsidence	0	0	0	0	1 acre	\$60,712	1 acre	\$60,712
Spoil Area	0	0	0	0	50.5 acres	\$96,969	50.5 acres	\$96,969
Surface Burning	30 acres	\$6,750,000	0	0	47 acres	\$7,087,276	77 acres	\$13,837,276
Slump	0	0	0	0	25.0 acres	\$11,000	25.0 acres	\$11,000
Vertical Openings	0	0	0	0	15 (count)	\$376,483	15 (count)	\$376,483
<b>ALASKA TOTAL COSTS</b>		<b>\$59,219,609</b>		<b>\$2,189,000</b>		<b>\$16,617,537</b>		<b>\$78,026,146</b>

\* This table is based on a Problem Type Unit and Cost Summary Report from the Abandoned Mine Land Inventory System as of July 16, 2010. Coal accomplishments and costs shown are the same whether reported as SMCRA-funded only or as funded by all sources.

**Appendix 2**

Alaska Abandoned Mine Lands 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
Dangerous Highwalls	-250 feet	-\$24,000		+\$14,000	+150 feet	+\$13,990	-100 feet	+\$3,990
Dangerous Impoundments								
Dangerous Piles & Embankments								
Equipment & Facilities								
Gobs								
Hazardous Equipment & Facilities	-6 (count)	-\$175,000	+130 (count)	+\$175,000			+124	
Haul Road								
Hazardous Water Body								
Industrial / Residential Waste								
Mine Openings								
Portals								
Subsidence								
Spoil Area								
Surface Burning								
Slump								
Vertical Openings	-2 (count)	-\$60,000			+2 (count)	+\$82,810		+\$22,810
<b>ALASKA TOTAL COSTS</b>		-\$259,000		+\$189,000		+\$96,800		+\$26,800

\* 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 27, 2009, and July 16, 2010. Coal accomplishments and costs shown are the same whether reported as SMCRA-funded only or as funded by all sources.

### Appendix 3

#### Alaska Abandoned Mine Lands Reclamation Program

#### Noncoal Reclamation Accomplishments Since December 23, 1983, and Unfunded Noncoal Problems Remaining\*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Highwalls	0	0	0	0	70 (feet)	\$13,350	70 (feet)	\$13,350
Dangerous Piles & Embankments	0	0	0	0	0	0	0	0
Equipment & facilities	1.5 (count)	\$100,000	0	0	0	0	1.5 (count)	\$100,000
Hazardous Equipment & Facilities	2 (count)	\$32,000	0	0	13 (count)	\$139,613	15 (count)	\$171,613
Portals	19 (count)	\$107,000	0.5 (count): SMCRA	\$9,200: SMCRA	30.6(count): SMCRA	\$377,858: SMCRA	50.1 (count): SMCRA	\$494,058: SMCRA
			1 (count): all sources	\$19,200: all sources	36 (count): all sources	\$432,871: all sources	56 (count): all sources	\$559,071: all sources
Pits	3 acres	\$200,000	0	0	0	0	3 acres	\$200,000
Subsidence	0	0	0.4 acre: SMCRA	\$14,000: SMCRA	0	0	0.4 acre: SMCRA	\$14,000: SMCRA
			1 acre: all sources	\$47,800: all sources			1 acre: all sources	\$47,800: all sources
Vertical Openings	28 (count)	\$188,000	0.5 (count): SMCRA	\$9,200: SMCRA	41.9 (count): SMCRA	\$445,406: SMCRA	70.4 (count): SMCRA	\$642,606: SMCRA
			1 (count): all sources	\$19,200: all sources	44 (count): all sources	\$494,406: all sources	73 (count): all sources	\$701,606: all sources
<b>ALASKA TOTAL COSTS</b>		<b>\$627,000</b>		<b>\$32,400: SMCRA</b>		<b>\$976,227: SMCRA</b>		<b>\$1,635,627: SMCRA</b>
				<b>\$86,200: all sources</b>		<b>\$1,080,240: all sources</b>		<b>\$1,793,440: 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 16, 2010. AMLIS does not include a complete inventory of Alaska's unfunded noncoal problems.

**Appendix 4**

Alaska Abandoned Mine Lands 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								
Dangerous Piles & Embankments					-2 acres	-\$5,000	-2 acres	-\$5,000
Equipment & Facilities								
Hazardous Equipment & Facilities								
Portals	-1 (count)	-\$20,000	-0.5 (count): SMCRA		-1 (count): SMCRA	-\$22,812: SMCRA	-2.5 (count): SMCRA	-\$42,812: SMCRA
				+\$10,000: all sources	-0.5 (count): all sources	+\$5,201: all sources	-1.5 (count): all sources	-\$4,799: all sources
Pits								
Subsidence								
Vertical Openings	-2 (count)	-\$14,000	-1.5 (count): SMCRA	-\$60,000: SMCRA	+0.7 (count): SMCRA	+\$10,800: SMCRA	-2.5 (count): SMCRA	-\$63,200: SMCRA
			-1 (count): all sources	-\$50,000: all sources	+1.5 (count): all sources	+\$38,800: all sources	-1.5 (count): all sources	-\$25,200: all sources
<b>ALASKA TOTAL COSTS</b>		-\$34,000		-\$60,000: SMCRA		-\$17,012: SMCRA		-\$111,012: SMCRA
				-\$40,000: all sources		+\$39,001: all sources		-\$34,999: 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 27, 2009, and July 16, 2010.

## **Appendix 5**

### State Comments on the Report

July 27, 2010

#### **State of Alaska Comments on the Annual Summary Evaluation Report for 2010**

The State of Alaska concurs with the findings as presented in this report. There will almost always be additional charges that appear over time within the AKSAS financial system the State uses that will generate differences between costs of projects over time. We use the most current data available when preparing Closeout Reports for individual projects. The biggest plus we have going for our Program is that our focus has always been, and will remain to be, mitigation of coal hazards just as fast and cost-effectively as we can figure out ways to get them done with the grant funds available.

Joe Wehrman  
AML Program Manager  
State of Alaska DNR  
550 W. 7th Ave., Suite 900D  
Anchorage, Alaska 99501

Phone 907-269-8630  
Fax 907-269-8930