ANNUAL SUMMARY EVALUATION

of the

UTAH ABANDONED MINE RECLAMATION PROGRAM

for

EVALUATION YEAR 2010
(July 1, 2009, through June 30, 2010)

August 31, 2010

TABLE OF CONTENTS

I. Introduction……..1

II. General Information on the Utah Program …….2

III. Noteworthy Accomplishments ……..3

IV. Results of Enhancement and Performance Reviews ...……...……3

V. Accomplishments and Inventory Reports ……..10

Appendix 1 - Coal Reclamation Accomplishments Since June 3, 1983 and Unfunded Coal Problems Remaining……..……..14

Appendix 2 - Coal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year……..15

Appendix 3 - Noncoal Reclamation Accomplishments Since 1983, and Unfunded Noncoal Problems Remaining..…….…..16

Appendix 4 - Noncoal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year……17

Appendix 5 - State comments on the report….……18

Cover photo: Maple trees in the North Tintic West project area. September 29, 2009.

ACRONYMS

AML	abandoned mine lands
AMLIS	Abandoned Mine Land Inventory System
AMR	Abandoned Mine Reclamation
BLM	Bureau of Land Management (of the U.S. Dept. of the Interior)
CIMRP	Colorado Inactive Mine Reclamation Program
DFD	Denver Field Division (of the Office of Surface Mining)
DOGM	Utah Division of Oil, Gas and Mining
DNR	Utah Department of Natural Resources
FBMS	Federal Business Management System
FINET	Financial Network
NEPA	National Environmental Policy Act of 1969, as amended
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
USDI	United States Department of the Interior
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), which took effect January 13, 2009.

OSM awards grants to States and Indian tribes with moneys from the Fund and the general Treasury to pay for their administration costs and abandoned mine reclamation. 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'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 and to monitor their 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 been evaluating the Utah Abandoned Mine Reclamation Program (UAMRP) since January 1996. The team includes representatives of UAMRP, the Colorado Inactive Mine Reclamation Program (CIMRP), and OSM's Denver Field Division (DFD). It also includes other individuals on an ad-hoc basis as needed.

A number of people participated on the core team, in the evaluations, or both during the 2010 evaluation year. Luci Malin, UAMRP Administrator, Tony Gallegos, UAMRP staff member, and Bruce Stover, CIMRP Director, represented the States on the core team. Bruce replaced Loretta Pineda, former CIMRP Director, as a core team member. Frank Atencio, Christine Belka, and Ron Sassaman represented OSM-DFD on the team. Steve Fluke and Louie Amodt, UAMRP project managers helped us do the 1(a) performance measure evaluation. UAMRP's entire staff and CIMRP's Steve Renner attended one part of that evaluation. UAMRP's Jan Morse and Luci Malin helped us evaluate the 2(e) performance measure. Jan Morse, Luci Malin, Tony Gallegos, and UAMRP staff member Chris Rohrer helped us complete the 2(j) performance measure evaluation. Utah Division of Oil, Gas and Mining (DOGM) employee Jill Marriott helped Frank Atencio evaluate the 3(h) performance measure. Ron Sassaman compiled this report.

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

II. General Information on the Utah Program

On June 3, 1983, the Secretary of the Interior approved Utah's AML reclamation plan ("State Reclamation Plan") under Title IV of SMCRA. That approval allows the AMR Program to reclaim the State's abandoned mines using SMCRA funds in non-emergency projects. The AMR Program is part of the Division of Oil, Gas and Mining (DOGM) in Utah's Department of Natural Resources (DNR). It administers Utah's Abandoned Mine Reclamation Program under the State's approved Plan. The Denver Field Division of OSM's Western Region works with UAMRP to fund and approve AML projects in Utah and to evaluate AML reclamation and other aspects of the Program.

Section 405(f) of SMCRA authorizes State and Indian tribal AML programs to apply to OSM for annual grants to support their programs and reclaim specific projects. OSM awards grants to Utah to fund the AMR Program's administration costs for the period of July 1st of one year through June 30th of the following year. The same grants also award construction funding that is available to the Program during the same period for each of three years after the initial grant award date.

Utah's 2007 grant award originally totaled $1,626,467 for the period of July 1, 2007, through June 30, 2010. That grant funded the Program's 11 positions and administrative costs for one year. It includes funding to reclaim one noncoal project and to engineer, design, and plan two other noncoal projects. Effective November 1, 2007, OSM approved an amendment to that grant increasing the award to $2,049,219.33.

The State's 2008 grant awarded a total of $3,644,687 for the period of July 1, 2008, through September 30, 2011. It funded 11 positions, or 10.28 full-time equivalents, as part of UAMRP's administrative costs for one year. That grant included funding for reclamation of one combined coal/noncoal project. It also funds planning costs for a Statewide coal inventory and coal fires assessment, the fifth part in a series of demonstration projects involving an underground mine fire, and inventory and survey work on another combined coal/noncoal project. The amended 2008 grant also funded reclamation of two coal projects and planning activities for three other noncoal projects.

OSM awarded a total of $3,620,533 in Utah's 2009 grant. That grant became effective July 1, 2009, and expires on June 30, 2012. It included funding to support 12.25 positions and UAMRP's other administrative costs through June 30, 2010. That grant's application didn't describe projects to be funded or reclamation goals but it included funds for two noncoal projects.

Utah doesn't have OSM-approved subsidence insurance protection or emergency coal reclamation programs.

III. Noteworthy Accomplishments

DOGM and OSM co-hosted the OSM-Western States and Tribes Leadership meeting on June 15 and 16, 2010, in Salt Lake City. The meeting enabled senior State, Indian tribe, and OSM managers to discuss current and future AML and regulatory issues.

The Program continued its public outreach, partnering, and related activities during the evaluation year. It participated in 12 events to make presentations and staff information booths and distributed abandoned mine safety literature to five events. Staff members also distributed: 16,401 workbooks for fourth grade students; 171 "Stay Out – Stay Alive" educational videos; 1,687 pencils; 1,502 calendars with historic photos of Utah's mining heritage; and 13,248 temporary "Stay Out – Stay Alive" tattoos. UAMRP also partnered with the Bureau of Land Management (BLM) on the North Tintic West and Lakeside projects during the 2010 evaluation year.

IV. Results of Enhancement and Performance Reviews

We updated the "Colorado-Utah AML Review Team Performance Agreement" on September 25 and November 16, 2009, to describe the principles of excellence and performance measures that we planned to review in the 2010 evaluation year. The last team member to sign the updated Agreement did so on November 23, 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 the specific performance measures we chose for our 2010 evaluation of the Utah AMR 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 (j)*: 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 Chapter 5-55 of the Federal Assistance Manual?

Results of our 2010 evaluations are described below in Parts IV.A through D. We described our evaluation results in much more 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 evaluations of performance measures 1(a), 2(e), 2(j), and 3(h).

A. Summary Evaluation of Performance Measure 1(a)

Our evaluation of this performance measure determined if ongoing or completed reclamation met project goals. Abating hazards to public health and safety through abandoned mine reclamation is the primary goal of Title IV of the Surface Mining Control and Reclamation Act (SMCRA). The success of that reclamation directly influences the extent to which abandoned mine hazards are successfully abated. Generally, reclamation project goals should reflect the need to reclaim abandoned mine lands and abate their attendant hazards while improving site conditions overall and complying with applicable laws and regulations. We completed our most recent previous evaluation of this performance measure in the 2009 evaluation year.

The 2010 evaluation of this performance measure included the Bonanza and North Tintic West noncoal projects. Reclamation of the Bonanza project was completed in 2006. UAMRP's reclamation of the North Tintic West project was ongoing at the time of our visit.

Our evaluations of the sample projects empirically compared UAMRP's ongoing and completed reclamation to its project specifications. Project specifications include: Provisions in Chapter 4 of the Construction Specifications; project-specific technical specifications in Chapter 5 of the Construction Specifications that UAMRP developed to address site-specific conditions; and any requirements that resulted from the interagency consultation UAMRP completed to help OSM comply with the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and other laws. The evaluation focused on whether the State's work abated the original hazard and improved overall site conditions compared to pre-reclamation conditions. We agreed that the projects met their goals if abatement measures were intact and functional and no problems that would compromise those measures were evident.

Most of the Bonanza project met its goals and at least three closures needed maintenance to address hazards. Thirteen of the 16 closures met all project goals. Goals included abating hazards, improving site conditions compared to pre-reclamation conditions, preserving historic values, and protecting bats. Three backfill closures failed and posed hazards similar to those the original openings posed. We viewed 16 closures, 14 of which UAMRP planned in its specifications. All 16 closures were in vertical openings. UAMRP constructed ten of the closures we visited by machine backfilling. It constructed the remaining six closures using polyurethane foam capped with concrete and then backfill material. We found that hazard abatement measures were intact and functional at 13 of the 16 closures. UAMRP's reclamation preserved

historic mine timbers and protected bats as much as practical. We recommended that UAMRP perform maintenance to address hazards at three vertical openings.

We concluded that the ongoing North Tintic West project met its goals so far. Goals included abating hazards, improving site conditions compared to pre-reclamation conditions, preserving historic values, and protecting bats and bat habitat. We noted one case where UAMRP needed to make a minor repair to a completed closure (which it did not long afterward). We viewed 40 mine openings that included 24 horizontal openings (portals), 1 collapsed portal, 12 vertical openings, and three inclined openings. Of those, construction hadn't begun yet on three horizontal openings and two vertical openings. We viewed completed and in-progress closures that included hand backfills, machine backfills, block walls, a stone wall, polyurethane foam and a drain pipe, PUF and backfill, and one under construction to have a beamed grate. UAMRP preserved historic values and protected bats to comply with results of interagency consultation.

Above: Block wall closure in portal 3090308HO2 of the North Tintic West project. September 29, 2009.

Left: Polyurethane foam / concrete / backfill closure and preserved historic collar and cribbing at vertical opening 4092132VO3 of the Bonanza project. November 3, 2009.

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 the AMLIS data, concluding that AMLIS data didn't 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 Utah's AMLIS PADs to data in UAMRP's files to ensure that they agree. UAMRP uses data from its project managers to complete its project completion summaries. We consider project completion summaries to be UAMRP's "system" for ensuring that completion data Utah enters into AMLIS match data in its files. The evaluation sample included the Grand Staircase-Escalante National Monument 2 (GSENM2) coal and noncoal project and the Mammoth and North Tintic West noncoal projects. We compared data in UAMRP's project completion summaries to data in those projects' respective PADs. This was our fifth annual evaluation of this performance measure.

Our review of the three sample project completion summaries and their respective PADs found the following:

1. UAMRP updated AMLIS PADs with completion data for all three sample projects as required by 30 CFR 886.21(c);

2. UAMRP completed project completion summaries for all three sample projects;

3. UAMRP completed priority documentation forms for two of the sample projects and for five of the seven PADs the third project included;

4. UAMRP entered performance measures data for all three sample projects;

5. After UAMRP corrected data in response to our first review, data in the project completion summaries for the Mammoth, North Tintic and GSENM2 projects matched data in their respective PADs.

Based on our findings, we concluded that designating a staff member to update AMLIS improved the consistency and timing of UAMRP's AMLIS updates, reduced data discrepancies, and ensured that PADs that DOGM created more recently include priority documentation forms.

Based on our first and second reviews' findings and conclusions, we recommended that UAMRP improve its quality control to ensure that data in project completion summaries match data in the respective AMLIS PADs.

We note that AMLIS would not always enable UAMRP to correct and update data when needed and expect the ongoing AMLIS upgrade to correct those issues.

C. <u>Summary Evaluation of Performance Measure 2(j)</u>

This performance measure evaluation looked at how Utah is planning to address the unfunded coal problems it has in AMLIS. We developed this new performance measure in response to OSM's increased emphasis on addressing unfunded coal problems in

uncertified States. That emphasis reflects the changes in SMCRA that the 2006 amendments made and that the November 14, 2008, final regulations implement. Our previous evaluations of Utah's coal reclamation didn't specifically look at the State's plans to address remaining unfunded coal problems.

UAMRP isn't required to develop a formal "plan" for addressing the State's unfunded coal problems. However, it developed a draft timeline that shows the coal and noncoal projects it tentatively plans to reclaim through the end of 2015. The population and sample for this evaluation included all available information that describes what Utah is doing to address unfunded coal problems shown in AMLIS. That information included: The draft timeline; two reports, one of which investigated abandoned coal mine fires and outcrop fires, and another that investigated abandoned coal mines in Summit and Morgan Counties; reports of unfunded coal problems Utah inventoried in AMLIS; projects funded in active grants; and the amount of noncoal reclamation UAMRP funds relative to coal reclamation.

We found that UAMRP plans to address the unfunded coal problems Utah currently inventories in AMLIS. More specifically, we found that:

1. UAMRP's draft timeline is based on completing reclamation of Utah's coal problems (as known on March 2, 2010) by the end of 2014;

2. The draft project timeline and Utah's 2010 grant application are based in part on the coal fires and coal mine investigation reports;

3. UAMRP separately tracks coal problems in AMLIS by PAD number and correlates that tracking to projects it tentatively included in the draft project timeline to plan grants through 2014;

4. The draft project timeline lists about 30 coal projects funded under the 2008 and 2009 grants and scheduled in future grants through the 2014 grant. Comparing the draft timeline to Utah's grants shows that its plans are already changing;

5. The draft project timeline addresses most of the remaining eligible unfunded coal problems Utah currently inventories in AMLIS;

6. UAMRP added some coal problems to AMLIS that OSM has no record of approving. We discussed this and agreed to identify the specific changes so OSM can approve them retroactively;

7. Of the four problem areas affected by unfunded priority 1 dangerous highwalls, three are associated with outcrop fires in the coal fires investigation report. Of the three problem areas affected by priority 1 subsidence, two are characterized as outcrop fires in the coal fires investigation report. Of the five problem areas that Utah has in AMLIS with priority 1 underground mine fires, all five are characterized as outcrop fires in the

coal fires investigation report. Their token costs serve as data points to keep them in the AMLIS database; and

8. Utah continues to plan and fund substantial noncoal abandoned mine reclamation.

Based on our findings, we concluded that:

1. UAMRP's draft project timeline addresses most of the unfunded coal problems the State currently has in AMLIS;

2. Though the draft timeline is a working document, it's a good summary of UAMRP's general planning to address Utah's remaining unfunded coal problems;

3. The draft project timeline is likely to change as UAMRP's investigations generate more data and projects move through the planning and construction process. So, the 2014 coal certification date is a rough estimate for general perspective only and isn't definite;

4. Fires that are burning in coal seams or outcrops and aren't related to abandoned mines in an uncertified State such as Utah aren't eligible for funding under section 404 of SMCRA. The coal fires investigation report characterizes at least five of the fires Utah has in AMLIS as outcrop fires;

5. OSM apparently didn't approve of adding some coal keyword units and costs to Utah's AMLIS data; and

6. Noncoal reclamation will compete with coal reclamation for available resources as UAMRP continues to address Utah's most hazardous abandoned mine problems.

Based on our findings and recommendations, we recommended that:

1. UAMRP continue to use the draft project timeline to help show progress on planning reclamation of known coal problems in Utah, adjusting it as needed to add, delete, or change projects;

2. UAMRP adjust the draft project timeline as needed to ensure continuity from project design through construction;

3. UAMRP review the coal fires investigation report and AMLIS data to determine if certain fires characterized in the investigation report as outcrop fires should be removed from AMLIS if, in fact, they're not associated with abandoned mines; and

4. UAMRP and OSM ensure that OSM approves of adding new keyword units and costs to existing and new coal PADs, including previous additions that need to be approved.

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). In that context, it focused on determining if Utah, as a non-certified State, keeps coal and noncoal drawdown records separate, according to approved subaccounts, so that it can comply with the restrictions on using various grant funds that the 2006 SMCRA amendments and revised 30 CFR regulations impose. Our evaluation sample included drawdown reports from fiscal years 2008 and 2009. We note that Utah's fiscal year (FY) is one year ahead of the Federal fiscal year. For example, Federal FY 2009 appears as FY 2010 in the State's financial reports.

Utah operates on a cash reimbursement basis. DOGM pays all costs up-front through its accounting system, after which the State is reimbursed for the amount it paid out to cover UAMRP's program expenses. Because DOGM operates on a cash reimbursement basis, it doesn't receive advances of Federal funds. This means that the State doesn't need to be concerned about how long it keeps cash on hand before it pays customers, contractors, or for services. Also, the actual and optimum days required to pay funds under the State's system aren't a concern because the State pays all debts from its treasury first.

UAMRP draws funds on a monthly basis. A summary report of expenditures and revenue status by program keeps running balances of all open and closed program grants. DOGM keeps separate reports for regulatory grants and for AML grants. It constantly compares this financial system, called Financial Network (FINET), and its fund balances to those on the U.S. Treasury's Automated Standard Allocation for Payments (ASAP) system to make sure all balances are the same.

The Division keeps monthly revenue and expenditure reports on individual program projects and their associated administrative costs. It keeps year-to-date reports on all object classes such as employee wages, benefits, travel, materials and supplies, rental expense, and indirect costs. DOGM also keeps a year-to-date report of grant expenditures for each open grant by funding year. A total drawdown amount then appears in the consolidated Cash Draw Report. That report contains bank postings of draws by subaccount and the bank posting date. The Cash Draw Report also identifies if the cash draw is for coal purposes only or for noncoal purposes.

DOGM also maintains an expenditure summary that breaks down the overall administrative budget and the overall construction budget by individual projects and their projected cost for the year. It provides revenue and expenditure summaries at a glance, showing original budgeted amounts, current budgets, and the actual year-to-date expenditures. The summary also shows total expenditures and the overall amount available for all open AML grants and keeps coal and noncoal totals separate.

The expenditure summary further separates the administrative budget into costs for coal-only administration and coal/noncoal project administration. Both coal and

noncoal administrative budget lines identify the type of service they provide from the amount budgeted for that line item. The total drawdown amount is shown for coal-only and noncoal costs.

This same summary shows separate budget lines for coal and noncoal construction projects. All projects and program costs associated with construction are identified by name, and each is assigned a budget amount. Budget drawdowns are closely monitored as they occur. Adjustments are made if a drawdown ever is made from an incorrect (i.e., coal vs. noncoal) budget line.

Our evaluation found that Utah's accounting system documents how funds are being drawn to pay for program approved costs. Records of approved use of funds as allowed by the 2006 amendments to SMCRA P.L. 109-432 are being adequately kept as required. Funds OSM awards for coal-only administrative and construction project costs are sorted-out and easily identifiable within each budget sheet. Cumulative cash drawdown amounts for individual budget line items are easily identified as well.

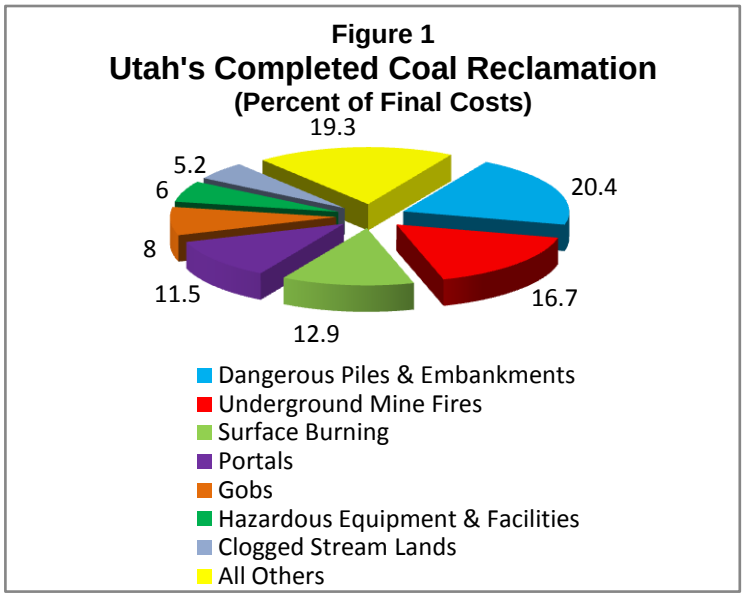
Based on that finding, we concluded that DOGM maintains a financial drawdown system that complies with State requirements, Chapter 5-55 of the FAM, the Cash Management Act of 1990, and the 2006 SMCRA amendments.

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. UAMRP 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. Utah's expenditures from all sources on coal and noncoal AML reclamation total $20,613,785 since the Secretary approved the State's program effective June 3, 1983.

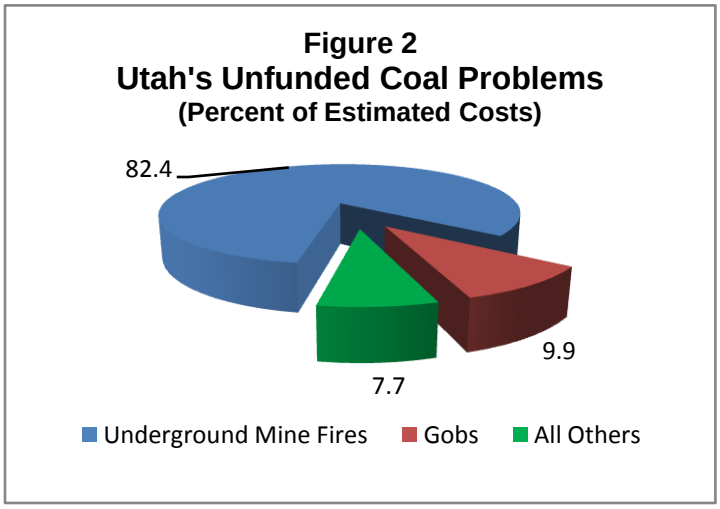
UAMRP completed 54 coal projects since program approval. That's the same number we reported at the end of the 2009 evaluation year. AMLIS data show that abandoned coal mine reclamation required just over 51 percent of the funds UAMRP spent on all reclamation since June 3, 1983. As reported in the previous two evaluation years, coal reclamation UAMRP completed to date addressed 25 types of priority 1, 2, and 3 coal problems. AMLIS attributes about 80.7 percent of the cost of UAMRP's completed coal reclamation to abating seven types of AML problems, including: Dangerous piles and embankments; underground mine fires; surface burning; portals; gobs; hazardous equipment and facilities; and clogged stream lands. The other 18 problem types required the remaining 19.3 percent of final costs. These percentages changed only slightly since the previous year's report. Appendix 1 shows Utah's completed coal reclamation costs and accomplishments in more detail. Figure 1 (following page, right) shows the coal problems Utah addressed to date.

UAMRP didn't complete new coal projects in the 2010 evaluation year and reclaimed two coal projects in the last six years. Maintaining previously-completed projects and updating coal data in AMLIS account for the $26,943 increase in coal completion costs. AMLIS data show that UAMRP addressed one hazardous structure, one portal, and 0.1 acre of subsidence associated with abandoned coal mines in the 2010 evaluation year. Appendix 2 shows the changes in AMLIS data for Utah's completed coal reclamation.



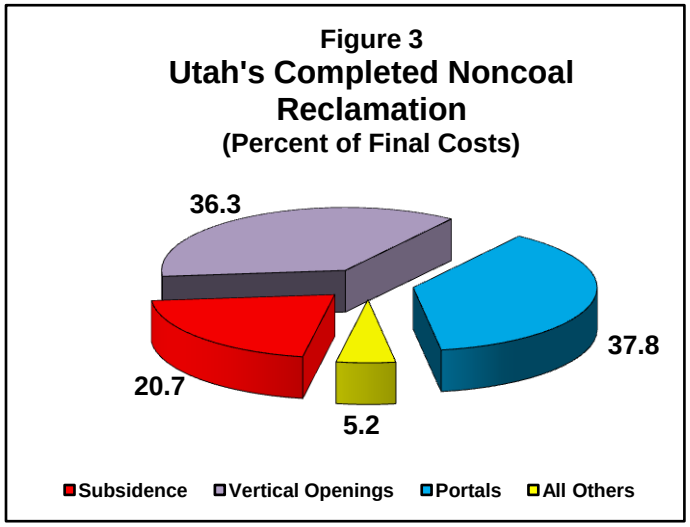
AMLIS data show that the estimated cost of abating Utah's remaining unfunded coal problems is $3,822,788. That's an overall decrease of $1,086,259 from the amount we reported at the end of the 2009 evaluation year. Eleven types of coal problems are unfunded, three more than reported previously. As shown in Figure 2 (below, right), priority 1 and 2 underground mine fires and priority 3 gobs make up about 92.3 percent of the estimated cost of abating Utah's unfunded coal problems. Appendix 1 shows the nine coal problems that are included in "all others" in Figure 2 that make up the remaining 7.7 percent. We note that Utah's inventory of unfunded dangerous highwalls and hazardous and explosive gases in AMLIS doesn't include valid abatement cost estimates because the State isn't sure at this time if, and how, it will address them. Their minimal associated costs serve only to maintain the data entries in AMLIS.

Appendix 2 shows the changes UAMRP made to Utah's AMLIS coal data in the 2010 evaluation year. The decrease in the estimated cost of Utah's unfunded coal problems referred to previously is the result of removing eight acres of unfunded underground mine fire, spoil area, and water problems and the associated costs from AMLIS. On the other hand, UAMRP offset that decrease somewhat by adding unfunded coal problems to AMLIS. Problems it added included clogged stream lands, industrial / residential waste, dangerous piles and embankments, equipment and facilities, gobs, and subsidence.



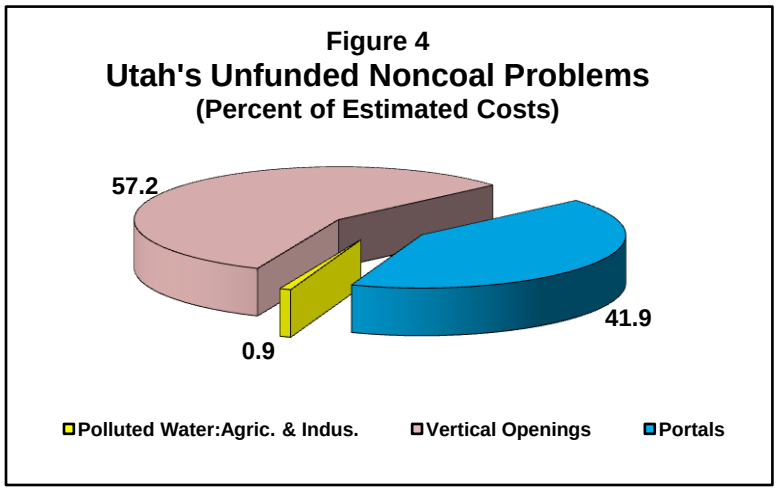
Coal projects UAMRP plans to fund in current and future grants prompted those increases. Its plans are based in part on re-inventorying reclaimed and unreclaimed coal problems in at least two areas of the State. Ultimately, the additions are in response to OSM's increased emphasis on addressing the State's remaining coal problems. Further, they're consistent with the tentative timeline UAMRP developed to address Utah's remaining coal problems, as described in Part IV.C of this report. As noted in that Part, however, there's no record of OSM approving those additions. OSM is required to approve additions of coal problems to AMLIS.

Utah considers abandoned noncoal portals and vertical openings more hazardous overall than most of its remaining unfunded coal problems, and its reclamation reflects that. UAMRP reclaimed 47 noncoal projects since June 3, 1983. To date, it spent $13,925,960 from all sources to reclaim abandoned noncoal mine problems, about 38 percent more than it has spent on coal reclamation. Of that amount, $13,466,286 (about 96.7 percent) was OSM grant funding. Reclaiming portals, vertical openings, and subsidence made up 94.8 percent of its noncoal expenditures from all funding sources. Figure 3 (left) further illustrates UAMRP's completed noncoal reclamation expenditures.



UAMRP completed two noncoal projects in the 2010 evaluation year. As shown in Appendix 4, the State's 2010 noncoal reclamation accomplishments include safeguarding 134 portals and 70 vertical openings with funding from all sources.

Utah inventories unfunded abandoned noncoal problems in AMLIS that it plans to address in current and/or upcoming grants even though it isn't required to. Presently, those problems include portals, polluted water, and vertical openings. The unfunded noncoal problems Utah currently has in AMLIS are shown in more detail in Appendix 3. Figure 4 (left) further illustrates a comparison of Utah's current, unfunded noncoal AMLIS data. UAMRP added 176 unfunded noncoal portals and 504 vertical openings and their estimated unfunded abatement cost of



$1,578,338 to AMLIS in the 2010 evaluation year. Unlike additions of coal problems to AMLIS, OSM isn't required to approve additions of noncoal problems. Appendix 4 gives more details about the changes UAMRP made to Utah's noncoal data in AMLIS during this evaluation year. The estimated costs of reclaiming the vertical openings and portals Utah has in AMLIS are about 57.2 percent and 41.9 percent, respectively, of the $1,257,055 estimated total unfunded cost. Polluted water used for agricultural and industrial purposes makes up the remaining 0.9 percent.

Constructing a closure with polyurethane foam in vertical opening 3090308VO3 of the North Tintic West noncoal project. September 28, 2009.

Appendix 1

Utah Abandoned Mine Reclamation Program

Coal Reclamation Accomplishments Since June 3, 1983, and Unfunded Coal Problems Remaining*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Bench	0	0	0	0	4 acres	$154,544	4 acres	$154,544
Clogged Streams	0.2 mile	$10,000	0	0	14.1 miles	$455,376	14.3 miles	$465,376
Clogged Stream Lands	1.1 acres	$56,489	0	0	9 acres	$546,126	10.1 acres	$602,615
Dangerous Highwalls	4,500 feet	$3	0	0	3,425 feet	$444,871	7,925 feet	$444,874
Dangerous Impoundments	0	0	0	0	1 (count)	$14,600	1(count)	$14,600
Dangerous Piles & Embankments	1.3 acres	$62,376	0	0	150 acres	$2,150,933	151.3 acres	$2,213,309
Dangerous Slides	0	0	0	0	3 acres	$29,825	3 acres	$29,825
Equipment & Facilities	1(count)	$10,000	0	0	64 (count)	$47,850	65 (count)	$57,850
Gases: Hazardous & Explosive	5 (count)	$1	0	0	19 (count)	$55,000	24 (count)	$55,001
Gobs	21 acres	$380,000	0	0	255 acres	$846,349	276 acres	$1,226,349
Highwall	0	0	0	0	550 feet	$1	550 feet	$1
Hazardous Equipment & Facilities	0	0	0	0	157 (count)	$634,304	157 (count)	$634,304
Haul Road	0	0	0	0	3 acres	$35,000	3 acres	$35,000
Industrial / Residential Waste	1 acre	$30,000	0	0	9 acres	$76,800	10 acres	$106,800
Portals	0	0	0	0	508 (count)	$1,208,010	508 (count)	$1,208,010
Pits	0	0	0	0	8 acres	$23,266	8 acres	$23,266
Polluted Water: Agric. & Industrial	0	0	0	0	3 (count)	$55,700	3 (count)	$55,700
Subsidence	180.5 acres	$123,913	1 acre	0	4.2 acres	$171,369	185.7 acres	$295,282
Spoil Area	0	0	0	0	55 acres	$264,484	55 acres	$264,484
Surface Burning	0	0	0	0	38.8 acres	$1,368,636	38.8 acres	$1,368,636
Slurry	0	0	0	0	1 acre	$2,830	1 acre	$2,830
Slump	0	0	0	0	16 acres	$24,143	16 acres	$24,143
Underground Mine Fire	298 acres	$3,150,006	0	0	18 acres	$1,757,873	316 acres	$4,907,879
Vertical Openings	0	0	0	0	24 (count)	$49,243	24 (count)	$49,243
Water Problems	80 gal/min	0	0	0	20.3 gal/min	$117,085	100.3 gal/min	$117,085
UTAH TOTAL COAL COSTS		**$3,822,788**		**0**		**$10,534,218**		**$14,357,006**

* 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.

NOTE: ***Unfunded*** costs of $1 or $3 are data points only used to retain the problem(s) in AMLIS. They do not reflect estimated reclamation costs. A ***completion*** cost of $1 means UAMRP reclaimed that problem type incidental to reclamation of another problem type.

Appendix 2

Utah Abandoned Mine Reclamation Program

Coal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Clogged Stream lands	+1.1 acres	+$56,489					+1.1 acres	+$56,489
Industrial/residential waste	+1 acre	+$30,000					+1 acre	+$30,000
Dangerous Piles & Embankments	+1.3 acres	+$62,376					+1.3 acres	+$62,376
Equipment/Facilities	+1 (count)	+$10,000					+1 (count)	+$10,000
Gobs	+10 acres	+$330,000					+10 acres	+$330,000
Hazardous Equipment & Facilities			-1 (count)	-$1,250	+1 (count)	+$3,681		+$2,431
Portals			-10 (count)	-$30,413	+1 (count)	+$25,510	-9 (count)	-$4,903
Subsidence	+0.5 acre	+$123,910	-0.1 acre	-$1,875	+0.1 acre	+$2,422	+0.5 acre	+$124,457
Spoil Area	-2 acres	-$5,034					-2 acres	-$5,034
Underground Mine Fire	-8 acres	-$1,690,000					-8 acres	-$1,690,000
Vertical Openings					-7 (count)	-$4,670		-$4,670
Water Problems	+79.5 gal/min	-$4,000					+79.5 gal/min	-$4,000
UTAH COAL COST CHANGES		-$1,086,259		-$33,538		+$26,943		-$1,092,854

* 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

Utah Abandoned Mine Reclamation Program
Noncoal Reclamation Accomplishments Since June 3, 1983, and Unfunded Noncoal Problems Remaining*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Dangerous Piles & Embankments	0	0	0	0	205 acres - SMCRA ; 244 acres - all sources	$226,036 - SMCRA ; $284,753 - all sources	205 acres - SMCRA ; 244 acres - all sources	$226,036 - SMCRA ; $284,753 - all sources
Gobs	0	0	0	0	1 acre - all sources	$173 - all sources	1 acre - all sources	$173 - all sources
Hazardous Equipment & Facilities	0	0	0	0	50 (count) - SMCRA ; 68 (count) - all sources	$31,816 - SMCRA ; $45,620 - all sources	50 (count) - SMCRA ; 68 (count) - all sources	$31,816 - SMCRA ; $45,620 - all sources
Haul Road	0	0	0	0	0.5 acre - SMCRA ; 68 acres - all sources	$48,171 - SMCRA ; $184,901- all sources	0.5 acre - SMCRA ; 68 acres - all sources	$48,171 - SMCRA ; $184,901 - all sources
Other	0	0	0	0	53 -SMCRA; 54 - all sources	$13,354 - SMCRA ; $13,459 - all sources	53 - SMCRA; 54 - all sources	$13,354 - SMCRA ; $13,459 - all sources
Portals	843 (count)	$1,187,393	54 (count)	$81,000	3,132 (count) - SMCRA ; 3,243 (count) - all sources	$3,604,048 - SMCRA ; $3,807,436 - all sources	4,029 (count) - SMCRA ; 4,140 (count) - all sources	$4,872,441 - SMCRA ; $5,075,829 - all sources
Polluted Water: Agri. & Indus.	1 (count)	$25,000	0	0	0	0	1 (count)	$25,000
Subsidence	0	0	0	0	179.4 acres - SMCRA ; 182.4 acres - all sources	$2,078,205 - SMCRA ; $2,081,650 - all sources	179.4 acres - SMCRA ; 182.4 acres - all sources	$2,078,205 - SMCRA ; $2,081,650 - all sources
Vertical Openings	642 (count)	$1,623,000	186 (count)	$930,000	1,612 (count)- SMCRA ; 1,643 (count) - all sources	$3,618,263- SMCRA ; $3,661,575 - all sources	2,440 (count) - SMCRA ; 2,471 (count) - all sources	$6,171,263 - SMCRA ; $6,214,575 - all sources
UTAH TOTAL NONCOAL COSTS		**$2,835,393**		**$1,011,000**		**$9,619,893 - SMCRA ; $10,079,567 - all sources**		**$13,466,286 - SMCRA ; $13,925,960 - all sources**

* 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 doesn't include a complete inventory of Utah's unfunded noncoal problems.

Appendix 4

Utah Abandoned Mine Reclamation Program

Noncoal Reclamation Accomplishments and Inventory Changes in the 2010 Evaluation Year*

Problem Type and Description	Unfunded		Funded		Completed		Total	
	Units	Costs	Units	Costs	Units	Costs	Units	Costs
Portals	+176 (count)	+$314,838	-33 (count)	-$127,000	+134 (count), SMCRA and all sources	+$225,658, SMCRA and all sources	+258 (count), SMCRA and all sources	+$413,396 SMCRA and all sources
Vertical Openings **	+504 (count)	+$1,263,500	+3 (count)	+$17,870	+70 (count), SMCRA and all sources	+$177,809, SMCRA and all sources	+573 (count), SMCRA and all sources	+$1,459,179 SMCRA and all sources
UTAH NONCOAL COST CHANGES		**+$1,578,338**		**-$109,130**		**+$403,467**		**+$1,872,675**

* 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. Noncoal accomplishments and costs shown are the same whether reported as SMCRA-funded only or as funded by all sources.

** Completion units and cost data for subsidence and vertical openings in the 2009 evaluation year were incorrectly reported in the 2009 summary evaluation report. This table is based on a comparison of corrected completion data for 2009 to 2010 data. When corrected 2009 data are compared to 2010 data, they show no changes for subsidence, so subsidence isn't shown in this table. That comparison of data for vertical openings shows the changes indicated above.

Appendix 5

State Comments on the Report

From: Lucia Malin [luciamalin@utah.gov]
Sent: Wednesday, August 25, 2010 9:23 AM
To: Sassaman, Ronald
Subject: Re: Utah draft annual evaluation report

I am ok with the report with the changes.