OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report
for the
Abandoned Mine Land Reclamation Program
Administered by the Department of Environmental Quality
of

MONTANA

for

Evaluation Year 2013
July 1, 2012 to June 30, 2013

Prepared by
Casper Area Office
October 2013

Table of Contents

I. General 1

A. Introduction 1
B. Program Administration 2

II. Noteworthy Accomplishments 3

A. Overall Performance 3

III. Utilization of OSM Technological Assistance 4

A. National Technical Training Program (NTTP) 4
B. Technical Innovation and Professional Services (TIPS) 4
C. Use of OSM Provided Equipment & Services 4
D. Financial Assistance 5

IV. Public Participation and Outreach 5

A. OSM 5
B. Montana 5

V. Results of Evaluation Year 2013 Reviews 7

Topic-Specific Reviews 7
1. Overall Reclamation Success 7
2. AML Emergency Investigations and Abatement Efforts 12
3. AML Grant Fiscal and Administrative Controls 12
4. Subsidence Prone Area Inventory 13
5. Acid Mine Drainage 14

VI. Tables 15

VII. Comments 25

(Cover Photo: McLaren Tailings Reclamation Project, Cooke City, MT)

Executive Summary

Montana's Abandoned Mine Land Program

Evaluation Year 2013

Evaluation of the State reclamation program is conducted by the Denver Field Division, Casper Area Office (CAO) of OSM. Evaluation Year (EY) 2013 consisted of a full twelve month period beginning on July 1, 2012 and ending on June 30, 2013. OSM has completed its evaluation of topics specified in the Performance Agreement between MTAML and OSM. This evaluation specifically examined six topic areas to evaluate MTAML performance, as identified in the EY 2012-2013 Performance Agreement between the two Agencies:

1) Overall reclamation Success
2) Emergency Investigations and Abatement Efforts
3) AML Grant Fiscal and Administrative Controls
4) Subsidence Prone Area Inventory
5) Acid Mine Drainage
6) Public Outreach

MTAML met the goals of abating hazards and improving site conditions at both coal and non-coal projects. Industrial wastes associated with abandoned hardrock mills were disposed in appropriate repositories constructed both off- and on-site. Hazardous equipment and wastes were removed and the areas sufficiently reclaimed for use by the general public. Coal mine fires were extinguished, slumps and subsidence features were mitigated, and sites were re-vegetated. All construction adhered to the standards of construction excellence maintained by MTAML. A Rapid Response coal fire was addressed quickly and the problem abated.

Financial Stature Reports were submitted within the required timeframes with no deficiencies noted. Review of the Montana AML Grant Accounting program confirmed that recent audits had no questioned or disallowed costs associated with OSM-Montana AML grant(s).

MTAML is transitioning from legacy AMLIS to e-AMLIS, and not all data has yet migrated between the two systems. Therefore, not all accomplishments of the MTAML program for EY 2013 are reflected in the e-AMLIS reports; however the deficiencies in E-AMLIS are being identified and corrected.

The MTAML has been regularly monitoring AMD problems in Montana and pursuing possible ways to address the problem in a cost effective manner. They have employed various techniques to address and control AMD but with varied success. MTAML continues to monitor the problem and pursue any alternative to procure funding at the level necessary to resolve the AMD problem, including a water treatment facility.

We have concluded that the MTAML is adhering to the public participation and involvement policy of the Montana AMLR plan by holding public meetings regarding potential AML project sites. They have also gone far beyond what is in their plan by conducting tours, participating in public events, giving local presentations and otherwise making their presence and the benefits of the AML program known to the public.

I. General

A. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSM) in the Department of the Interior to oversee regulation of coal exploration, surface coal mining and reclamation operations, and reclamation of lands adversely affected by past mining practices. SMCRA provides that, if certain conditions are met, a state may assume primary authority for reclamation of abandoned mine lands (AML) within its borders. Once a state has obtained such approval, OSM has the responsibility to make investigations, evaluations, and inspections necessary to determine whether that State's AML program is being administered in accordance with approved program provisions. On November 24, 1980, the Secretary of the Department of Interior approved Montana's AML Reclamation Plan under Title IV of SMCRA. Montana's approved Reclamation Plan sets forth authority, policies, and procedures under which Montana operates its program. With the 1980 approval, the State assumed exclusive responsibility and primary authority for non-emergency AML projects within the State. On August 18, 1983, the Secretary approved Montana's April 20, 1983 amendment to its AML Reclamation Plan allowing Montana to assume responsibility for an emergency response reclamation program. On April 11, 1990, OSM announced in Federal Register notice (55 FR 13552) Montana has certified that all known coal problems had been addressed, and requested public comment. In Federal Register notice (55 FR 28022) of July 9, 1990, OSM approved the certification and authorized Montana to reclaim non-coal hazards. The Montana Department of Environmental Quality (MDEQ), Remediation Division, Abandoned Mined Lands Bureau currently administers these programs.

Evaluation of the State reclamation program is conducted by the Casper Area Office (CAO) of OSM. Evaluation Year (EY) 2013 consisted of a full twelve month period beginning on July 1, 2012 and ending on June 30, 2013. OSM's evaluation methods are based upon OSM Directive AML-22 (Evaluation of State/Tribe Abandoned Mine Lands Programs) and a Performance Agreement (PA) dated December, 2011 between Montana Abandoned Mine Lands Program (MTAML) and OSM. This agreement incorporates a shared commitment by the State and OSM in determining how annual evaluations will be conducted. The State takes an active role in the entire evaluation process. The process is designed to evaluate whether the State, through its AML reclamation (AMLR) program, is achieving the overall objective of Section 102 of SMCRA which states that AMLR programs are to:

> "... promote the reclamation of mined areas left without adequate reclamation prior to the enactment of this Act and which continue, in their unreclaimed condition, to substantially degrade the quality of the environment, prevent or damage the beneficial use of land or water resources, or endanger the health or safety of the public ..."

The agreement establishes a commitment between MTAML and OSM to identify topics for review, identify methodologies for enhancement and evaluation of performance reviews, and assist in the preparation of the final report. Assessment of MTAML

performance includes reviews of selected topics such as 1) overall reclamation success, 2) emergency investigations and abatement efforts, 3) grant fiscal and administrative controls, 4) subsidence prone area inventory, 5) acid mine drainage, and 6) public interaction and outreach.

The following acronyms are used in this report:

AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
ATP	Authorization to Proceed
CAO	Casper Area Office
CIL	Certified in Lieu funds
EY	Evaluation Year
GPRA	Government Performance Results Acts
MDEQ	Department of Environmental Quality
MTAML	Montana Abandoned Mine Land Program
NTTP	National Technical Training Program
OIG	Office of the Inspector General
OSM	Office of Surface Mining
PA	Performance Agreement
PAD	Problem Area Definition
PBRF	Prior Balance Replacement Funds
SMCRA	Surface Mining Control and Reclamation Act
TIPS	Technical Innovation and Professional Services

B. Program Administration

Overall, the State of Montana administers MTAML under SMCRA, the approved State Reclamation Plan, the Federal Assistance Manual and associated rules, regulations and policy decisions. The State administers an excellent AMLR program in a manner reflecting high quality professionalism and performance, and excellent communication and cooperation between consulting agencies and other interested parties. The MTAML program currently supports 10.9 FTEs and is based in the capital city, Helena. The CAO and MTAML regularly consult and interact with one another.

The Montana AMLR program was initiated in 1980 and for the next ten years the State concentrated on abating the hazards left by past coal mining practices. In 1990 the State certified that all known coal problems had been addressed and they were then authorized by OSM to begin reclaiming the multitude of high priority non-coal hazards in their inventory. However, any abandoned coal problems that are discovered must still be given priority funding over non-coal projects, and that requirement has been followed by Montana.

Initial investigation is usually conducted by the project officer who 1) conducts initial investigation; 2) obtains landowner consents; 3) negotiates inter-agency agreements if necessary; 4) writes environmental assessments; 4) conducts cultural resource and

threatened and endangered species investigations and consultations; 5) conducts public meetings for information dissemination and comment; 6) prepares the submission to OSM for an Authorization to Proceed (ATP); and 7) conducts public meetings for the public stakeholders and potential construction contractors.

Prior to initiating any construction work, MTAML submits a documentation package to OSM with a request for an ATP. This package includes 1) a complete Environmental Assessment or Categorical Exclusion, 2) a project eligibility determination pursuant to 30 CFR 874.12 prepared by the DEQ Attorney, 3) a threatened and endangered plant and animal species survey, and consultation results with the U.S. Fish and Wildlife Service, 4) consultation results with the State Historic Preservation Office, and 5) site maps and photographs. If acceptable and complete, CAO issues an ATP pursuant to section 4-160-50D.3 of the 2011 Federal Assistance Manual to MTAML prior to reclamation or construction of each coal project.

The State uses an established bid process to obtain services from qualified environmental, engineering, design and construction companies at the lowest effective price. Environmental hazard investigations, construction design and reclamation construction portions of each AML project are completed by private contractors. Design and specification work is contracted to engineering firms and is accomplished during the winter months when most outside work is impractical. Actual reclamation work starts as soon as weather and ground conditions allow heavy equipment to be moved to a site. Many of the sites presently being reclaimed are in mountainous terrain and at high altitudes. This fact may drastically shorten the amount of time available for reclamation work because of snow, ice and mud. A part of the responsibility of each engineering design contractor is to provide an inspector for the construction work. This inspector is on site during working hours to ensure that the work is being completed according to the plans and specifications that have been approved by MTAML.

MTAML staff is very knowledgeable and dedicated to the accomplishment of program goals. An excellent working relationship exists between the staff of MTAML, CAO, and other State and Federal agencies contacted during the course of preparing projects for reclamation. MTAML personnel spend most of the construction season in the field coordinating and supervising reclamation work, and preparing future projects for reclamation. Some construction work may continue into the winter months but the staff primarily spends this time of the year working with the design contractors to get projects ready for the upcoming construction season.

II. Noteworthy Accomplishments

A. Overall Performance

The Montana DEQ continues to administer an efficient and successful AML program, as set forth in Section 102 of SMCRA. Significant hazards on both coal and non-coal sites remain to be mitigated and future funding will be required. A summary of specific projects worked on or completed during this EY is provided in Section **V.** below.

III. Utilization of OSM Technological Assistance

OSM provides technical assistance and technology support to State AML and Regulatory Programs at the individual State level on project-specific efforts, and at the national level in the form of national meetings, forums, and national initiatives. The WR's Program Support Division provides direct technical assistance in project and problem investigation, design and analysis, permitting assistance, developing technical guidelines, and training support. WR also works on the development of regional and national forums, meetings and initiatives to ensure that interests and needs of individual States are considered and included in these events. WR initiated a regional Technology Transfer Team in 2003 which each State, including Montana, has a representative.

During EY2013, OSM provided Montana with the following assistance:

A. National Technical Training Program (NTTP)

Four MT DEQ staff (Regulatory and/or AML program staff) attended one of two NTTP classes offered during EY2013, and MTAML provided instructors for two NTTP courses.

B. Technical Innovation and Professional Services (TIPS)

One MT DEQ staff (Regulatory and/or AML program staff) attended TIPS training classes during EY2013, and MTAML provided an instructor for one TIPS course.

C. Use of OSM Provided Equipment & Services

The TIPS Remote Sensing team ordered and processed satellite imagery for several mine sites in Montana. The imagery will be used by the Casper Area Office to assist with GIS projects.

The Remote Sensing Team created a map for use by the drone team (OSM/BLM/State of MT) to be used for the Coal Seam Fire Mapping Project. The "drone" is the Raven unmanned aerial vehicle (UAV).

The state of Montana submitted a "Success Story" to TIPS based on their recent usage of TIPS software. It was titled "TIPS Software Applied to Major Dewatering Effort and Mine Cleanup near Yellowstone National Park."

Montana had a representative on the in-situ working group who participated in conference calls and a workshop.

Montana had a Title IV and Title V representative participate in monthly WRTT calls.

A "virtual" service manager visit is scheduled for August 2013.

MT DEQ staff (Regulatory and/or AML program staff) did not utilize equipment from OSM's Technology Transfer Program in EY2013.

OSM's librarian filled three reference requests and provided no article reprints to MT Regulatory program staff, and none to the AML program staff.

D. Financial Assistance

During FFY 2013, OSM provided $12,378,787* in AML grant funding to the Montana AML program. Grant No. S13AS00002 began on July 1, 2013 and is scheduled to end on June 30, 2022. This grant funded the continued administration of the Montana state AML program during the period of July 1, 2013 through June 30, 2014, and will provide project development and construction funding for a period of ten years.

Distribution of Montana's AML FY2013 Consolidated Grant:

$826,076	Administrative Costs (H2.01)
$3,651,375	Project Costs (H2.11)
$7,901,336*	Project Costs (H2.11)
$12,378,787*	Total

(*includes $639,159 sequestered funds which were re-applied per OSM Approval of their amended Grant Application)

IV. Public Participation and Outreach

A. OSM

The OSM Casper Area Office (CAO) provides for transparency in the oversight process by conducting outreach to stakeholders and encouraging public participation throughout OSM-CAO's annual oversight activities. OSM's programmatic reviews of the Montana AML program indicate that the MT DEQ is adhering to the State's policies and procedures regarding opportunities for public participation in all phases of the reclamation program. The public can find oversight guidance documents and OSM's Performance Agreement with the Montana AML Program on the following OSM website: http://www.wrcc.osmre.gov/programs/oversight/Montana.shtm

Each evaluation year, the OSM-CAO solicits input from the public and interested parties to comment on the oversight process, provide suggestions for potential oversight evaluation topics, and suggestions for improvements of future annual evaluation reports. During the 2013 evaluation year, CAO received no comments or suggestions specific to the Montana AML Program. CAO will continue to address issues and concerns as they develop and in subsequent evaluation years.

B. Montana

Our 2013 evaluation of public interaction investigated whether or not MTAML is performing public outreach efforts by holding public meetings subsequent to new grant

applications. The Montana AMLR Plan requires that the public be afforded the opportunity to comment on abandoned mine reclamation projects. MTAML considers the public an important component of the reclamation program, and conducts public meetings in the community nearest each project. The meetings are well publicized and are held in evenings or on weekends to allow maximum citizen participation. Overall plans for the project area, construction design, maps, overlays and aerial photographs are presented and discussed at each public meeting.

Individuals may submit comments in writing, or meet with the project officers at any time prior to completion of the comment period on a project. Project officers also meet with affected landowners to explain each project in detail, and keep them informed of the progress throughout the construction phase. Work plans are often altered to conform to comments received from landowners, contractors and the general public.

MTAML held several public meetings, at least one for each major project. Specifically: Red Lodge 2 meetings on subsidence issues; McLaren Tailings annual update to community and stakeholders; Sand Coulee 2 community meetings to discuss water system issues and replacement; Forest Rose Community update and meetings with Granite County Commission to provide updates; Musselshell County Commission meeting to provide information on mine subsidence issues under county roads; and took staffer from Senator Baucus on tour of Belt acid mine drainage.

MTAML goes to great lengths to develop and maintain good working relationships with all State and Federal agencies, such as the U.S. Forest Service, the Bureau of Land Management, U.S. Fish and Wildlife Service, the Montana Department of Natural Resources and the Montana Department of Fish Wildlife and Parks. In most cases, these agencies will accept National Environmental Policy Act efforts conducted by MTAML for projects within Federal and State jurisdiction. This practice carries over into relationships with local agencies and groups, and to landowners who have AML sites on their land. MTAML participates in an annual meeting with the Bureau of Land management, the U.S. Forest Service, the Environmental Protection Agency, the Montana Superfund program and Federal Superfund program to coordinate activities and enhance information sharing.

MTAML provides further opportunities for public participation and involvement through its internet website and press releases. MTAML posts Expanded Engineering Evaluation/Cost Analysis Reports of proposed projects, Reclamation Investigation reports, environmental reports, construction bid notices, notices of public hearings of proposed AML projects, final construction reports and "A Guide to Abandoned Mine Reclamation" on its website at http://www.deq.mt.gov/AbandonedMines/default.mcpx. They have also recorded a significant amount of Montana mining history on the website to help mitigate the loss of important cultural resources during the reclamation process and provide that information to educational facilities, and interested parties through the website.

DEQ has public relations personnel who release news items to media outlets such as local TV stations, statewide newspapers, public radio and on the DEQ website. MTAML has also participated in public outreach activities such as the STEM (Science, Technology,

Engineering, Math) EXPO with the idea of presenting those subjects to school children in such a way as to stimulate their interest. The STEM EXPO is held in Great Falls and DEQ's Abandoned Mine Program participated by presenting an interactive booth featuring hands on activities performing environmental sampling and monitoring as well as educational materials about abandoned mine cleanups and jobs in Environmental Science.

We have concluded that MTAML is adhering to the public participation and involvement policy of the Montana AMLR plan by holding public meetings regarding potential AML project sites. They have also gone far beyond what is in their plan by conducting tours, participating in public events, giving local presentations and otherwise making their presence and the benefits of the AML program known to the public.

V. Results of Evaluation Year 2013 Reviews

Topic-Specific Reviews

The MTAML PA was signed in December, 2011 and applies to EY 2012 and 2013. The PA describes the topics selected for review to evaluate the performance of the MTAML program. On-the-ground, performance-based results were the principal focus of program evaluation and documentation.

Topic evaluations reports and individual project reports containing much more detail are on file in the 2013 Annual Evaluation files at the Casper Area Office. As identified in the 2012/2013 PA, the following topics were selected for evaluation; 1) overall reclamation success; 2) AML emergency investigations and abatement efforts; 3) AML Grant Fiscal and Administrative Controls; 4)subsidence prone area inventory; 5) acid mine drainage; and 6) public interaction and outreach. Results of the 2013 evaluations are provided below. The evaluations included field visits to AML projects, interviews with MTAML staff, and reviews of project specifications, grant applications and reports, and AMLIS inventories.

1. Overall Reclamation Success

Bald Butte/Great Divide Tailings Project (non-coal) near Marysville, MT: Project planning started in 2008 and reclamation construction began in July, 2010, and was completed in November, 2012. The Project was completed and closed out in EY2013. The Project involved abandoned hard rock mine features and associated waste rock and tailings reclamation at the Bald Butte Mines and millsite, and the Great Divide Sand Tailings Site.

The Projects involved excavating/removal of 255,000 cubic yards of tailings and 69,000 cubic yards of waste rock, which were hauled and placed in a fully lined and capped waste repository, centrally located between the Bald Butte and Great Divide sites. Also 3500 linear feet of stream channel was reconstructed where Dog Creek and its tributaries formerly ran through a series of tailing impoundments and waste areas. The project required a stream diversion and ground dewatering wells to allow for excavation and tailings placement operations.

Nineteen Hazardous Mine Openings (HMOs) and/or mine collapse features (subsidences) were also included as part of the reclamation projects. Mine shafts or adits were closed either by placing locked steel grates over openings, or sealing them with foam plugs and placing earthen backfill (cover) over them.

Both projects mitigated exposure of wildlife and the public to potential health hazards.

McLaren Tailings Reclamation Project (non-coal) at Cooke City, MT: An ATP was issued for this Project in May of 2009 and the project is ongoing and ahead of schedule. The project is located along Soda Butte Creek and Miller Creek, approximately 5 miles upstream from Yellowstone National Park. Work completed during July, August, and September of 2012 included salvaging existing cover soils (approximately 45,000 cubic yards), tailings excavation (approximately 169,000 cubic yards) and stabilization with quicklime, compaction of the stabilized tailings in the repository, and operation of the construction dewatering wells and the water treatment systems. The project required ground dewatering wells to allow for excavation and tailings placement operations.

Upon commencement of the construction season in June of 2013, approximately 18,000 additional cubic yards of tailings were excavated, stabilized, and placed in the repository. An additional 7500 cubic yards of cover soil were salvaged also.

By the end of the of the 2013 construction season (into EY14), the approximate 4000 remaining cubic yards of tailings and other mine wastes will have been placed in the repository, and Soda Butte Creek and Miller Creek will be returned to their original pre-mining locations. Final grading, spreading of cover soils, and revegetation work is expected to be completed during the 2014 construction season. OSM visited the site with MTAML in June of 2013, and final work on removal of the tailings was occurring at that time.

Photo 1: Excavating remaining tailings along north edge of project during site visit on June 25, 2013

Photo 2: Looking west at compacted and limed tailings repository area (June 25, 2013)

Photo 3: Some of the control/monitoring equipment used in a pattern of water wells at the project used to lower the water table and for ground water quality testing (June 25, 2013).

Forest Rose Mine Reclamation Project (non-coal) near Drummond, MT: The Project consisted of two parts (contracts) - a road improvement project and a reclamation construction project associated with the abandoned Forest Rose hard rock mine. The road improvement portion involved improving 7.1 miles of road in Powell and Granite Counties (including replacing six culverts) and 1.9 miles on USFS property. These activities commenced on June 12, 2012 and were completed on July 1, 2012.

The reclamation construction activities commenced on June 29, 2012, shut down for the winter in November, and resumed on May 14, 2013 until Substantial Completion of the project was obtained on July 30, 2013.

Reclamation construction activities included: clearing and grubbing of brush and trees in the waste removal and repository areas; widening and resurfacing 1.7 miles of USFS Road 707 and installation of two culverts; excavation of over 76,000 cubic yards of rock and soil for the construction of the repository; excavation, loading, hauling, and placement of 107,462 cubic yards of mine waste and tailings in the repository; and grading, covering, fertilizing, seeding and mulching of the repository and disturbed areas; and reconstruction of Dunkleberg Creek after construction activities were finished.

Horsethief Road Right-of-Way Grouting Project: The Project consisted of sealing mine openings and injecting grout into all underground voids under and alongside a 200 feet stretch of U.S. Highway 12 (Horsethief Road) near Roundup, MT. The job was completed in July of 2013 at a project cost of $230,400.

Cascade County Clogged Stream Project: As part of $629,603.75 MTAML project, approximately 5.7 miles of affected streams/waterways in the Great Falls Coal Field around the communities of Sand Coulee, Stockett, and Tracy area were excavated/cleaned of accumulated heavy metals and acid mine precipitates. These materials were causing flooding in areas, creating dangers for area residents and the public, and were negatively impacting the local economy. The project also included the cleaning of 16 bridges and culverts, and amounted to nearly 20,000 tons of sludge which was removed and hauled to a Class II landfill. The then-Montana Governor Brian Schweitzer toured the project site with MTAML staff which was covered and photographed by the Great Falls Tribune newspaper. OSM visited the site with MTAML in August of 2012 and also viewed the replacement potable water well for the community of Sand Coulee which had recently been drilled and completed.

Photo 1: Cleaning of culvert and creek at Sand Coulee (Aug 30, 2012)

Photo 2: Then-Governor Brian Schweitzer touring the Project site with MTAML staff.

Photo 3: Excavating contaminated material along road ditch at Sand Coulee (Aug 30, 2012)

Our 2013 evaluation of overall reclamation success was conducted to determine if MTAML's reclamation program met project goals. We compared MTAML's reclamation to project specifications, results of interagency consultation, and other information. Our evaluation focused on determining whether reclamation met project goals by implementing the scope of work to abate original hazards, complying with conditions (if any) resulting from interagency consultation, and improving overall site conditions compared to pre-reclamation conditions. Generally, we agreed projects met their goals if abatement and reclamation measures were intact and functional, and if no problems compromising those measures were apparent. We considered site conditions improved overall if hazards to public health and safety were abated and associated reclamation reduced environmental problems such as erosion and sedimentation while

promoting re-vegetation.

2. AML Emergency Investigations and Abatement Efforts

There is no longer OSM Emergency Funding designated for emergencies, but situations where human health, safety, or property damage are threatened are dealt with my MT AML as "Rapid Response" projects. MTAML did respond to one coal fire in Musselshell County under "Rapid Response "criteria, which required an Environmental Assessment.

Our 2013 evaluation of AML emergency investigations and abatement efforts examined whether emergency criteria of the State AMLR plan were satisfied and the subsequent project(s) were completed as described in the AML Emergency Investigation report. Several instances of coal subsidence were reported throughout eastern Montana during the EY. None of these threatened, or threatened property damage so none were considered to be emergencies.

3. AML Grant Fiscal and Administrative Controls

In 2006, Congress approved the Surface Mining Control and Reclamation Act Amendments of 2006 as part of the Tax Relief and Health Care Act of 2006 (P.L. 109-432). Part of the amendments changed the funding amounts and funding calculations to both certified and uncertified States and Tribes. The Amendments created two new funding mechanisms for certified States and Tribes: Prior Balance Replacement Funds (PBRF) under Section 411(h)(1) and Certified in Lieu Funds (CIL) under Section 411(h)(2). PBRF are State Share moneys that were not distributed over past years and now will be distributed in their entirety over a seven year period starting in Federal FY 2008. PBRF may be used for those purposes the State legislature or Tribal council establishes, giving priority to addressing the impacts of mineral development (30 CFR § 872.31). CIL funds are State Share moneys that would be distributed from the Abandoned Mine Lands Fund, only these moneys for certified States and Tribes are now distributed from the general funds of the United States Treasury that are otherwise unappropriated. CIL funds are distributed to certified States and Tribes at 25% the first year, 50% the second year, 75% the third year and 100% the fourth year and thereafter starting in Federal FY 2009 (30 CFR § 872.33). There are no limitations or restrictions on the use of CIL funds in the SMCRA Amendments of 2006 (30 CFR § 872.34).

Montana certified completion of all known P1 and P2 coal problems on April 11, 1990, with the Secretary of Interior concurring on July 9, 1990. Montana's funding is now exclusively derived from funds under Sections 411(h)(1) and 411(h)(2). As a condition of certification, Montana is required to treat all Priority 1, 2 and 3 coal problems as they arise.

The Montana legislature allocates all PBRF and CIL moneys to the MTAML to fund abandoned mine reclamation activities. Rather than using PBRF moneys for projects of their choosing as is allowed under the law (30 CFR 872.31), the Montana Legislature has designated all funds to the Abandoned Mine Reclamation program for the satisfaction of its mission (Montana Code Annotated, 82-4-1006 Abandoned Mine Reclamation Account). Montana's PBRF moneys remain constant at $8,069,086 until it expires in

Federal Fiscal Year 2014. Montana's CIL moneys will reach 100% in Federal FY 2012 and remain at that level until FYs 2018 and 2019 when the percentages of 75%, 50% and 25% not paid out respectively in FYs 2008, 2009 and 2010 are recaptured and paid out in two equal payments in 2018 and 2019 in addition to the annual CIL payment. It is presumed that MTAML will continue reclamation of all Priority 1, 2 and 3 coal problems as they are identified, and direct the remaining moneys to hard rock and other non-coal mining problems.

4. Subsidence Prone Area Inventory

-Coal inventory: During EY 2013, a total of 130 abandoned coal mine sites were Inventoried, including the following:

-Priority-1 Subsidence (S-P1) = 1 Site
-Priority-3 Slump (SP-P3)= 8 Sites
-Priority-3 Spoil Area (SA-P3)= 4 Sites
-Priority-3 High Wall (H-P3)= 2 Sites
-Priority-3 Mine Opening (MO – P3)= 2 Sites
-Priority-3 GOB (GO – P3)= 5 Sites

-Red Lodge, Montana:

In the summer of 2011, Montana AML received two complaints about potential subsidence in the south-central residential areas of Red Lodge, Montana. Site visits by MT AML staff and contracted engineers in 2011 and 2012 did not reveal any obvious subsidence features such as open sink holes, houses falling into subsidence, etc. However, evidence of subsidence, such as cracks in foundations, lumpy ground, uneven sidewalks/walkways and collapsing foundation walls, was observed. MT AML worked with Tetra Tech to develop an investigative approach and methods to determine if these complaints are related to past mining or mining related activities.

On May 23, 2013, the MT AML conducted an additional public meeting at the Carbon County Historical Society in Red Lodge. Five MT-AML staff members, a Tetra Tech Engineer, and an OSM (Casper Area Office) representative attended the meeting along with approximately 20 members of the public.

Following a short history and description of the area, MTAML and Tetra Tech presented their plans on how, where, and when they would begin their investigative drilling operations in the affected areas of Red Lodge. Drilling was expected to begin later in the summer or fall.

-Northeastern Montana:

During the EY2013, OSM issued ATP's to MT DEQ for several subsidence remediation projects in northeastern Montana, including: Waldie Mine Subsidence Remediation, Lekvold-Shaw Coal Mine Reclamation, Nay-Butler Coal Mine Reclamation, Strip Mine 8 Subsidence Remediation, and Shoal-Meyer Subsidence Remediation. A total of 87.7 acres of subsidence were remediated and reclaimed.

5. Acid Mine Drainage

In 1990, the Governor of Montana certified to the Secretary that Montana had completed reclamation of all known Priority 1 and 2 coal problems. Acid Mine Drainage (AMD), normally a Priority 3 problem, continued to plague the State's waterways. The heaviest concentrations of AMD are found in the Belt/Sand Coulee areas of the Great Falls Coal Field where twenty-six coal sites pose unmanageable AMD problems. These sites have had successful Priority 1 and 2 reclamation performed on surface features, but passive treatment of AMD problems has been unsuccessful. Passive treatments that have been attempted include limestone channels/drains, diversion of meteoric waters, and aerobic/ anaerobic constructed wetlands at the Johnson, Centerville, French Coulee and Stockett sites. All of these attempts have failed due to high concentrations and loads of acidity, metals, and sulfates in AMD waters thereby causing armoring of de-acidifying materials. Additionally, Montana's harsh winters froze wetlands and massive metalliferous precipitation inhibited vegetation growth. The MTAML has monitored AMD on these sites since 1995.

AMD issues in the western states were brought to OSM's attention at the time of the 1994 Appalachian Clean Stream Initiatives. In April of 1996, a field tour was conducted of eight sites in the Great Falls Coal Field to consider the possibility of using Clean Streams Initiative Funding for the AMD problems. Those in attendance consisted of staff from Montana DEQ (including MDEQ Director), the Montana Bureau of Mines and Geology, and the OSM (including OSM-Western Region Director). Although AMD problems were acknowledged, no decisions were made for treatment. It was implied that there wasn't enough AML funding to act on the AMD problems. These problems were not entered into AMLIS (there was no requirement for Priority 3 sites to be entered at that time). OSM was aware of the AMD problems, but did not require Montana to continue addressing them due to the inadequate funding and failed past treatment attempts. The AMD issue has been largely unaddressed since then.

Montana is re-approaching the AMD problem at this time due to four reasons: 1) Montana now has more funding available than in the past, 2) treatment of AMD by active systems may now be a viable option, 3) under the 2006 Amendments to SMCRA, certified states must now address Priority 3 problems to maintain certification, and 4) investigations have shown that coal AMD is having a greater impact on regional groundwater and area surface water such that human populations are affected.

Since passive AMD treatment systems have been largely unsuccessful, MTAML is considering the construction of active water treatment facilities. MTAML is reviewing the possibility of constructing several water treatment plants at strategic locations along Belt and Sand Coulee Creeks. Polluted water could be piped from multiple problem areas to one or more treatment facilities. MTAML has indicated that construction, maintenance and repair of water treatment facilities for just three of 26 AMD problem areas near Belt would require over $42 million. Treatment of all 26 AMD problem areas would require approximately $228.4 million. A current re-evaluation is underway to update the treatment options and costs.

On August 30, 2012, MTAML and two OSM representatives visited the site of the replacement potable water well at Sand Coulee as well as the clogged stream remediation work going on there. MTDEQ and OSM also visited at the contaminated Belt Creek site and proposed water treatment plant location.

VI. Tables

Table 1 – (Montana) Coal Status of AML Inventory all Priority 1, 2, and 3 Hazards on June 30, 2013

	High Priority		Elevated Priority 3	Stand-Alone Priority 3 (Not adjacent or in conjunction w/ P1&2)	Total
	Priority 1	Priority 2			
UNFUNDED					
GPRA Acres	85.51	427	N/A	111	623.51
Dollars	1,583,950.00	126,478,613.00	N/A	8,532,000.00	136,594,653
FUNDED					
GPRA Acres	0	0	NR	0	0
Dollars	0	0	NR	0	0
COMPLETED					
GPRA Acres	1,397.36	1,322.65	NR	3,691.01	6411.02
Dollars	5,064,955.05	14,833,746.10	NR	10,177,035.00	30,075,736.15

Table 1A – (Montana) Non-Coal Status of AML Inventory all Priority 1, 2, and 3 Hazards on June 30, 2013

	High Priority		Elevated Priority 3	Stand-Alone Priority 3 (Not adjacent or in conjunction w/ P1&2)	Total
	Priority 1	Priority 2			
UNFUNDED					
GPRA Acres	0	1,231.20	N/A	1.01	1,232.21
Dollars	0.00	88,180,250.00	N/A	150,000.00	88,330,250.00
FUNDED					
GPRA Acres	67.20	30.10	NR	0	97.30
Dollars	26,782,450.00	3,675,370.00	NR	0	30,457,820.00
COMPLETED					
GPRA Acres	8.64	940.78	NR	47.70	997.12
Dollars	2,323,312.98	32,844,926.35	NR	978,300.00	36,146,539.33

Table 2 - (Montana) Coal Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2013)																		
PROBLEM TYPE (keyword)																		
	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highwall (DH) (feet)	Dangerous Impoundment (DI) (count)	Dangerous Slide (DS) (acres)	Gases: Hazardous /Explosive (GHE) (count)	Hazardous Equip. /Facilities (HEF) (count)	Hazardous Water Body (HWB) (count)	Industrial/Residential Waste (IRW) (acres)	Portal (P) (count)	Polluted Water:Agri/Industrial (PWAI)(count)	Polluted Water: Human Consumption (PWHC)(count)	Subsidence (S) (acres)	Surface Burning (SB) (acres)	Underground Mine Fire (UMF) (acres)	Vertical Opening (VO) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)																		
Units													85.00	87.31			0.20	172.51
GPRA Acres													425.00	87.31			0.20	512.51
Dollars													126,446,613.00	1,641,950.00			1,000.00	128062563
ANNUAL RECLAMATION - EY2013 only (Completed)																		
Units														77.70	2.50		0.30	86.2
GPRA Acres														77.70	2.50		0.01	108.21
Dollars														318,025.00	8,000.00		24,286.00	985,567
HISTORICAL RECLAMATION - EY1978 - 2013 (Completed)																		
Units	8.99	9.90	82.80	7,910.00	3.00	0.90		197.00		204.60	726.50	19.00	212.00	568.50	307.40	81.98	436.10	10768.67
GPRA Acres	44.97	9.90	82.80	113.00	15.00	0.90		19.70		204.60	72.65	95.00	1,060.00	568.90	307.40	81.58	43.61	2,720.01
Dollars	1,148,694.00	116,765.00	972,126.00	438,454.00	14,000.00	1,000.00		839,766.00		124,041.00	2,324,265.00	1,165,650.00	1,185,845.92	5,992,963.10	2,154,350.00	2,348,289.50	1,072,491.00	19,898,701.15

Table 2A - (Montana) Non-Coal Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2013)																		
PROBLEM TYPE (keyword)																		
	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highwall (DH) (feet)	Dangerous Impoundment (DI) (count)	Dangerous Slide (DS) (acres)	Gases: Hazardous /Explosive (GHE) (count)	Hazardous Equip./Facilities (HEF) (count)	Hazardous Water Body (HWB) (count)	Industrial/Residential Waste (IRW) (acres)	Portal (P) (count)	Polluted Water:Agril/Industrial (PWAI)(count)	Polluted Water: Human Consumption (PWHC)(count)	Subsidence (S) (acres)	Surface Burning (SB) (acres)	Underground Mine Fire (UMF) (acres)	Vertical Opening (VO) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)																		
Units	21.00	86.60	261.20					630.00	8.00	582.10	191.00		0.00	38.10			80.00	1898
GPRA Acres	104.00	86.60	261.20					63.00	40.00	609.40	19.10		0.00	38.10			9.80	1231.2
Dollars	8,620,000.00	7,400,000.00	20,393,000.00					3,530,000.00	800,000.00	45,600,000.00	940,000.00		0.00	482,250.00			415,000.00	88,180,250.00
ANNUAL RECLAMATION - EY2013 only (Completed)																		
Units	0													0	0		0	N/A
GPRA Acres	0													0	0		0	0
Dollars	0													0	0		0	0
HISTORICAL RECLAMATION - EY1978 - 2013 (Completed)																		
Units	19.60	91.50	98.00	17,650.00	0.00	0.00	1.00	70.00	1.00	301.30	389.00	0.00	0.00	10.12	3.00	0.00	188.00	18,822.52
GPRA Acres	88.50	92.00	98.00	285.86	0.00	0.00	1.00	7.00	5.00	301.24	38.90	0.00	0.00	10.12	3.00	0.00	18.80	949.42
Dollars	4,190,567.15	5,039,595.95	3,601,328.75	2,926,653.00	0.00	0.00	84,250.00	255,082.00	277,418.00	17,710,679.00	371,295.00	0.00	0.00	338,539.48	106,471.00	0.00	316,360.00	35,168,239.33

Table 3 - (Montana) Coal Accomplishments in Eliminating Environmental Problems Related to Past Mining Priority 3 and SMCRA section 403(b) Hazards (As of June 30, 2013)

	PROBLEM TYPE (keyword)														
	Bench , Solid Bench, Fill Bench (BE) (acres)	Industrial/Residential Waste Dump (DP) (acres)	Equipment and Facilities (EF) (count)	Gob (GO) (acres)	Highwall (H) (feet)	Haul Road (HR) (acres)	Mine Opening (MO) (count)	Pit, Open Pit, Strip Pit (PI) (acres)	Spoil, Spoil Bank (SA) (acres)	Slurry (SL) (acres)	Slump (SP) (acres)	Water (WA) (gallons)	Other (specify)	Water Supplies (WS) – Section 403(b) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)															
Units				11								100			111
GPRA Acres				11								100			111
Dollars				6750000								1782000			8532000
ANNUAL RECLAMATION - EY2013 only (Completed)															
Units				2.5											2.5
GPRA Acres				2.5											2.5
Dollars				1416											1416
HISTORICAL RECLAMATION - EY1978 - 2013 (Completed)															
Units	0.8	104.8	58	164.7	1170	0.5	42	17.8	857.2		18.5	2740.5	14		5188.8
GPRA Acres	0.8	104.8	5.8	164.7	16.71	0.5	4.2	17.8	857.2		18.5	2500	0		3691.01
Dollars	2000	468539	134859	1690625	58008	10000	26395	49954	6758227		36163	800970	141295		10177035

Table 3A- (Montana) Non-Coal Accomplishments in Eliminating Environmental Problems Related to Past Mining Priority 3 and SMCRA section 403(b) Hazards (As of June 30, 2013)

	PROBLEM TYPE (keyword)														
	Bench , Solid Bench, Fill Bench (BE) (acres)	Industrial/Residential Waste Dump (DP) (acres)	Equipment and Facilities (EF) (count)	Gob (GO) (acres)	Highwall (H) (feet)	Haul Road (HR) (acres)	Mine Opening (MO) (count)	Pit, Open Pit, Strip Pit (PI) (acres)	Spoil, Spoil Bank (SA) (acres)	Slurry (SL) (acres)	Slump (SP) (acres)	Water (WA) (gallons)	Other (specify)	Water Supplies (WS) – Section 403(b) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)															
Units				0	1			1				0			2
GPRA Acres				0	0.01			1				0			1.01
Dollars				0	50000			100000				0			150000
ANNUAL RECLAMATION - EY2013 only (Completed)															
Units				0											N/A
GPRA Acres				0											0
Dollars				0											0
HISTORICAL RECLAMATION - EY1978 - 2013 (Completed)															
Units	0	0	0	0	0	0	188	16.3	12.6		0	0	0		216.9
GPRA Acres	0	0	0	0	0	0	18.8	16.3	12.6		0	0	0		47.7
Dollars	0	0	0	0	0	0	258991	24885	694424		0	0	0		978300

Table 4 – (Montana) Coal Public Well-Being Enhancement (All Priority 1, 2, and 3 AML projects completed during EY 2013)						
#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)
1	NRF					
2						
3						
4						
5						
6						
7						
8						
9						
10						
TOTAL				0	0	0

Table 4A – (Montana) Non-Coal Public Well-Being Enhancement (All Priority 1, 2, and 3 AML projects completed during EY 2013)						
#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)
1	NRF					
2						
3						
4						
5						
6						
7						
8						
9						
10						
TOTAL				0	0	0

Table 5 – (Montana) Coal Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining (AML projects completed during EY 2013)									
#	PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA funding	Alternate Non-SMCRA Funding Source	Total non-SMCRA Funding	In-Kind Services	Total Project Funding	Comments
1	NRF								
2									
3									
4									
5									
6									
7									
TOTAL				**0**		**0**	**0**	**0**	

Table 5A – (Montana) Non-Coal Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining (AML projects completed during EY 2013)									
#	PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA funding	Alternate Non-SMCRA Funding Source	Total non-SMCRA Funding	In-Kind Services	Total Project Funding	Comments
1	NRF								
2									
3									
4									
5									
6									
7									
TOTAL				**0**		**0**	**0**	**0**	

Table 6 – (State/Tribe) – Reclamation Projects Started and/or Completed (AML projects started and/or Completed during EY 2013)		
Project Type	**Projects Started**	**Projects Completed**
State/Tribe (EY 2013):	**16**	**17**
Federal (EY 2013):	**0**	**0**
Total (EY 2013):	**16**	**17**

Table 7 – (State/Tribe) – AML Program Grant Awards and Staffing (State/Tribe) AML Program Grant Awards and Staffing (During EY 2013)	
AML Program Costs	
Administration (H2.01)	**826,076**
Construction(H2.11)	**11,552,711**
Water Supply Construction	**0**
AMD Set-Aside	**0**
Other(s) (Specify)	**0**
Total AML Funding	**12,378,787**
AML Program Staffing (full-time equivalents on June 30, 2013):	**10.9**

VII. Comments

Appendix A: State Comments and CAO's Responses to the Draft Evaluation Summary Report

Montana's excellent abandoned mine reclamation is noted and discussed in the text of the report. This reflects dedicated staff of OSM and Montana and the excellent working relationship between Montana and OSM. While the text of the report documents the accomplishments of the Montana AML program, the data tables presented at the end of the Annual Evaluation Summary Report do not present a complete picture of the program's accomplishments. The report notes that the legacy AMLIS system did not fully transfer over to eAMLIS. Montana believes that and the difficulty that Montana has had entering data into the system account for this deficiency.

Montana believes that Table 2 and 2A underestimate Montana AML accomplishments. When Montana AML queried eAMLIS for completion data on all priority types the system yielded a total of $66,241,715. While a larger number that reported on table 2 and 2A, Montana believes that this number also underestimates program accomplishments. Montana will work with OSM to get more accurate data related to AML accomplishments entered into eAMLIS.

Table 4-A and 4-B show that no records were found in eAMLIS to populate these tables (NRF). When MT AML deconstructed the query used for this table, we determined that 411 codes were not included in the query. We also determined that if 411 codes were included in the query, a total of 13 records with appropriate data are found. If 411 codes are not meant to be included in this query then the tables are correct. However, if 411 codes should have been included in the query, but were not, the tables do not accurately reflect Montana accomplishments.

Table 5 and 5A are another example where Montana AML has data that could be used to populate the table but this information was not reported. MT AML regularly matches OSM AML Grant funds with funds from other sources such as other federal agencies and state grant programs. On the state side these matching grant funds include Montana's Resource Indemnity Trust-Reclamation and Development grant program and DNRC planning grants. On the federal side these matching funds include ARRA funds, and BLM and Forest Service proprietary abandoned mine and hazardous waste response funds. Table 5 only refers to "Coal Partnership Financial Resources Dedicated to protecting the Public from Adverse Effects of Past Mining". Is OSM interested in reporting Financial Resources that MT AML receives for Non-Coal projects as well? In particular matching funds from federal agencies often assist with the cost of non-coal reclamation projects undertaken by the abandoned mine program. Bald Butte-Great Divide project is an example where significant matching funds were received from BLM who worked with Montana AML to fund this important project. Again, are only matching funds from coal partnerships to be reported?