



DEPARTMENT OF INTERIOR

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

Annual Evaluation Summary Report Abandoned Mine Land Reclamation Program Administered by the State

**Of
WYOMING**



FOR EVALUATION YEAR

2004

**Cover Photo: Underground Coal Mine Subsidence Hole Hidden in Sagebrush
Sweetwater County, Wyoming**

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ANNUAL REPORT

Part I. General

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 the regulation of coal exploration and surface coal mining and reclamation operations and the reclamation of lands adversely affected by past mining practices. SMCRA provides that, if certain conditions are met, a State may assume primary authority for the reclamation of abandoned mine lands within its borders. Once the State has obtained such approval, OSM has the responsibility to make investigations, evaluations, and inspections necessary to determine whether the State Abandoned Mine Land Program (WY AMLP) is being administered in accordance with the approved program provisions.

OSM's evaluation methods are based upon OSM Directive AML-22 and a Programmatic Agreement between WY AMLP and OSM. The agreement establishes a commitment between the State and OSM as to how oversight will be conducted. This approach allows the State to take a more active role in the entire oversight process. The State and OSM staff developed topics for review, specified methodologies for evaluation, and assisted one another in the preparation of the final report.

The Director of the Office of Surface Mining revised the FY2003 evaluation year (EY) to consist of nine months – October 1, 2002 through June 30, 2003. Beginning with this EY 2004, the evaluation year will consist of a full twelve month period beginning on July 1 and ending on June 30 of the following year.

The assessment of the Wyoming AML program included enhancement and performance reviews of selected topics. Specific topics are WY AMLP site inventory, entries into the OSM AMLIS database, and financial administration.

Wyoming does not have an AML Emergency program and therefore emergency projects are administrated by OSM. However, Wyoming AML Division assists OSM with AML hazards, since most hazards are initially reported to Wyoming AML. When this occurs, Wyoming contacts the OSM Casper Field Office and, if needed, the Western Regional Coordinating Center and assists in the abatement of such emergencies. In many instances, Wyoming has AML construction activities in the area of the hazard and offers assistance through their existing contractors. WY AMLP has 17 contractors selected by the State bidding process that are under contract and can be mobilized on short notice to respond to emergency situations. Wyoming has several design and construction management firms under state-wide contract that can be directed to perform inspection and design on hazards needing urgent attention. Wyoming also contracts directly with

firms qualified for cultural resource and threatened/endangered species assessments so mitigation/clearances may be obtained without delay.

Overall, Wyoming administers its AML program in a professional manner resulting in high quality performance of the program. Excellent communication and cooperation between the OSM Field Office and the Wyoming AML program staff continue.

The following is a list of acronyms used in this report:

SMCRA	Surface Mining Control and Reclamation Act
AMLR	Abandoned Mine Land Reclamation
AMLIS	Abandoned Mine Land Inventory System
AML	Abandoned Mine Land
WY AMLP	Wyoming Abandoned Mine Land Program
OSM	Office of Surface Mining
CFO	Casper Field Office
DEQ	Department of Environmental Quality
BLM	Bureau of Land Management
SHPO	State Historic Preservation Office
EPA	Environmental Protection Agency

WY AMLP continues to administer the AML program with a staff of 12.8 FTE's from three offices. Field Offices are located in Lander and Casper while additional Project Officers and the Administrators office are located in Cheyenne. The WY AMLP Project Officers provide most of the project management. WY AMLP continues to hire consulting engineering and design management firms to assist the AMLP with evaluation, design and construction on the following major types of projects:

1. Shaft, adit and topographic depression closures.
2. Large open pit closures.
3. Subsidence abatement.
4. High-wall reduction/elimination
5. Hazardous bentonite pits
6. Underground coal fires
7. Public facilities projects.

WY AMLP also contracts for the following services:

1. Monitoring and certification of completed sites.
2. Cultural resource reviews and reports.
3. Consents and clearances
4. Resource reviews and reports (threatened and endangered plants and animals, wetlands delineation, paleontological artifacts, migratory birds)
5. Statewide inventory of all mine sites, coal and non-coal.

Procurement of services from consultants and contractors begins with a review of the AML

inventory. Sites are prioritized according to the criteria established in SMCRA. When the sites are selected, consulting firms are asked to submit a Statement of Interest (SOI). Site selection occurs around October 1 of each year. An AML selection committee selects 3 firms for each project from reviews of submittals and then interviews each contractor. The contractor is selected after the DEQ Director, the AML Administrator and the individual Project Officer concur. The project officer negotiates a contract based on the firms written proposal.

Due to State procurement laws and AML selection policies, the lag time between selecting a site for reclamation and execution of a contract with the design firm can be up to 12 months. Completion of the Report of Investigation (ROI), landowner consent, and clearances can take several months. The bidding and contractor mobilization process can add another 12 to 18 months. The State is now in the process of securing clearances for some projects through the Bureau of Land Management. Difficulties in obtaining these clearances have added to the delay in project completion.

Design work consists of obtaining land and mineral owner consents, eligibility determination, surveying and mapping, and the preparation of a ROI. This report identifies the reclamation alternatives. Following opportunity for public comment, AML selects an alternative and the consultant prepares the final reclamation design. A site visit/bid tour is provided. Prospective contractors bid on the project using the designs provided by WY AMLP.

Prior to beginning any construction work, the AMLP submits to OSM a Detailed Documentation Package. This set of documents includes an Environmental Assessment, NEPA clearances, an eligibility determination from the AML Administrator, a threatened and endangered plant and animal species survey, a cultural resource evaluation, maps, and site photographs. The AMLP obtains an Authorization to Proceed (ATP) from the Casper Field Office prior to reclamation or construction of each project.

Part II. Noteworthy Accomplishments

In the last twenty years, the WY AMLP has reclaimed over 887 abandoned mine sites encompassing over 39,675 acres. Approximately \$121 million have been spent on coal reclamation. Most of that has been spent for stabilizing mine subsidence in business and residential areas of Rock Springs, Glenrock and Hanna. Approximately 12 acres of coal mine related reclamation was completed this evaluation year. The majority of this money was spent on grouting underground subsidence, coal fires, and surface mine reclamation. Approximately \$82 million has been spent reclaiming abandoned bentonite pits in the northeast and northern portion of the state. Approximately \$21.5 million has been spent in the reclamation of hard-rock mine sites throughout the State. Reclamation of abandoned uranium mine sites has accounted for \$70.2 million. Uranium, conglomerate, phosphate and hard rock reclamation makes up a bulk of the remaining work to be done. WY AMLP continues to increase funding for non-coal reclamation. The State has spent over \$12 million dollars on 2 uranium mine projects. The Day Loma (Project 16A) and the H&I Spoils (Project 16H) sites have been partially reclaimed

with these funds. Reclamation of these sites is not complete. Significant hazards remain to be mitigated and future funding will be required. WY AMLP has invested over \$76 million in public facility projects around the state. This evaluation year WY AMLP has provided funding for \$4.77 million for public facilities projects. The remaining funding has been split among a mine subsidence insurance program, administrative costs, engineering services, and establishing a trust fund to address future mine subsidence and reclamation needs.

The University of Wyoming and the DEQ signed an agreement in 1990 to use \$270,000 of AML funds annually to support mine reclamation research efforts. The Governor certified this research agreement through 2005. The intent of funding this research is to provide technical assistance and support to identify and quantify environmental impacts from past and present coal mining and to find appropriate and practical mitigation. The Wyoming coal mining industry, OSM and WY AMLP support the reclamation research because of the need to develop scientifically sound solutions to identified problems. The Land Quality Division of DEQ, which must enforce the State reclamation laws, also supports the program because the information provided allows more precise assessment of the mitigation practices of the impacts of mining. The ultimate goal of the research is to provide positive benefits to the economy and environment of Wyoming.

Three WY AMLP employees participated in abandoned mine reclamation training conducted by OSM National Technical Training Program this EY. One employee attended the National Environmental Protection Act (NEPA) training. One employee attended the AMLL-41 session of the AML Design Workshop (landslides). One employee attended the AMLS-41 session of the AML Design Workshop (subsidence). OSM directly contributed \$3575.80 to assist the State in obtaining this training.

Public Outreach

Wyoming DEQ continues to solicit public comment and invite input on the WY AMLP program. Notices of public hearings are published in the local newspapers. When the project involves public facilities, the State Loan and Investment board provides for additional opportunity for public input prior to rendering a final decision on each project.

Wyoming DEQ maintains an excellent Web site that includes links to information on AML dangers, calendar of upcoming AML projects, current construction bidding, project selection, department contacts, rules and regulations, and professional procurement information. Also included are instructions describing how to report a mine hazard

Wyoming AML and the DEQ outreach staff have cooperated in the distribution of Stay Out Stay Alive material, including videos and DVD's to all elementary and middle schools in mining impacted communities. As a part of the DEQ booth at the Wyoming Game and Fish Expo in Casper, the Stay Out Stay Alive video was played on a continuous loop. This presentation elicited many comments and questions from the public about the safety of mine sites and the AML Program. As a part of the state-wide inventory process, AML published half page full color advertisements in the newspapers in Casper and in Rawlins, Sheridan, and Rock Springs. These advertisements warned people of the hazards of mine sites and gave procedures to report mine hazards. These ads were placed in the fall prior to hunting season and again in the spring prior to

commencement of outdoor activities.

Part III. Results of Enhancement and Performance Reviews

The majority of the oversight conducted during this evaluation year was spent accompanying WY AMLP project officers and consultants in the field. The consultants are combing data bases from the US Bureau of Mines, the US Geological Survey, and other sources attempting to identify and locate all mine sites in the state where access is available.



REMOTE UNDERGROUND MINE OPENING

The Casper Field Office became aware during the evaluation year that discrepancies and errors existed on the Wyoming data base contained in the OSM Abandoned Mine Land Inventory System (AMLIS). The State has hired a consulting firm with reclamation, AML, and data base experience to assist WY AMLP with maintenance of the AMLIS system.

The AMLIS is the primary source for completed reclamation information and for estimates of work yet to be completed. Information concerning AML problems is required to be entered into AMLIS prior to the State requesting an Authorization to Proceed (ATP) with a specific project. Based on the results of a review of the public facilities project portion of AMLIS, it was determined that WY AMLP does not appear to be properly entering information into AMLIS.

The State agreed to correct any errors on AMLIS and to set up an accounting/project tracking system to insure accurate programmatic data entry into AMLIS that can be correlated with standard Consolidated Grant expenditure reports. This system will assist OSM in its AML oversight responsibilities. The Project Officers will have an AMLIS Pad number assigned to each project. When any construction payment voucher is made with regard to that project, it will

be tracked by the AMLIS Pad number. Achieving correlation between AML grant report figures and AMLIS data will require the State to implement new procedures by both the AML program side and the accounting side. The State committed to having this new tracking system in place by December 2004. This system was implemented for pilot testing on September 1, 2004.



SPOIL PILE AND HIGHWALL REMNENTS OF PREVIOUS AML RECLAMATION OF A SURFACE COAL MINE IN CARBON COUNTY, WYOMING

The CFO has a system in place to ensure and require the State to certify that all information entered into AMLIS is accurate. This is accomplished in two ways. First, the CFO will verify each AMLIS entry prior to issuing any authorization to proceed (ATP) on any project. Second, the CFO will conduct oversight to ensure AMLIS accuracy.

During this evaluation year WY AML informed OSM that they no longer wish to participate in the coal outcrop fire program. OSM responded that the Casper Field Office will proceed in conducting future mediation needs in the State; either making coal outcrop fire grant awards to another agency who will manage these fires or conduct this process in-house.

AML Site Inventory

The WY AMLP Administrator testified before congress in 2004 that Wyoming has discovered that there may be 1,739 newly identified unreclaimed abandoned coal-related sites which will be verified by field inspections in 2004. The Administrator further stated that the cost for remaining work in Wyoming will likely exceed hundreds of millions of dollars and that mine fires and ongoing subsidence work will add to that total. In Attachment A to the Administrator's testimony before the Senate Energy Committee, the Administrator states that 2,098 coal sites have been identified after an initial screening to remove duplicate records. The Administrator states, "These numbers are a reasonably accurate representation of the total number of recorded mine sites in the state of Wyoming, including active mines and mine sites that have been subject to

previous reclamation work by AML. These numbers were further refined to identify 4,050 non-coal sites and 1,739 coal sites which merit further action, including field verification and inspection scheduled for the summer of 2004." This presents the appearance of a conflict with Wyoming's certification in 1984 that all known coal sites had been addressed or would be addressed with subsequent or future grants or amendments.

The initial mine site inventory was conducted by independent contractors between 1981 and 1983 with follow-up site visits by WY AMLP in 1984 and 1985. In 1981, as a part of a comprehensive inventory, extensive aerial survey information was compiled for the entire State by a contractor at a cost of \$600,000. Site data was also obtained from files and data bases including the US Bureau of Mines Minerals Industry Location System and the Geological Survey of Wyoming. The cost of this inventory was approximately \$1.5 million

Public Law 95-87 requires approved AML programs to correct or mitigate coal related hazards as the first priority. Once a State has certified that they have reclaimed or addressed all known coal related sites, the law allows the State to fund non-coal projects and public facilities.

At the end of 1983, Wyoming notified OSM that following the submission in June 1984, of the Hanna subsidence project, "the State will have addressed all of its known coal impacted areas." On March 5, 1984 the OSM approved the certification.

Based on the State's certification and absence of any known presently existing coal-related impacts, it was the opinion of OSM that the requirements in Section 409 of SMCRA had been satisfied. Wyoming certified "that it has addressed, or will complete through funding of the present grant agreement all reclamation related to abandoned coal mine lands." (49 FR 103).

The language in the Federal Register states that "OSM is aware of the potential for problems occurring in the future which relate to pre-August 3, 1977, coal mining. For example, the cities of Rock Springs and Glenrock have extensive underground mining and may experience subsidence problems in the future." The State requested it be allowed to begin addressing non-coal projects and agreed to a plan which would give priority to any coal-related problem that occurs during the life of the AML program.

Specifically the State agreed that "if and when a coal-related project occurs which meets eligibility requirements of Section 404 of SMCRA, the State would seek immediate funding for the reclamation efforts." *49FR 8092*.

Following certification, Wyoming amended its State Statutes and its AML Plan to define its process for selecting projects. OSM approved the amendments (30 CFR Sec 950.35) which included provisions (Chap VII Subsection 6.a.) for addressing any new coal related problems as they might be discovered.

Since 1984, Wyoming has continued to expend funding on both coal and non-coal related projects. By 1984 the State had expended \$26,856,097 (93%) on coal related projects, while spending \$2,168,929 (7%) on high priority non-coal. Since certification after 1984, the State spent \$93,370,197 (36%) on coal related projects while spending \$163,909,853 (64%) on non-

coal projects. In 2004, Wyoming spent 15.7% of the consolidated grant funds on public facility projects.

It is estimated that the majority (approximately \$90 million) of the coal funding has been for Rock Springs coal subsidence projects. Even in 1984, the state and OSM were aware that the majority of the yearly funding would be earmarked to mitigate coal hazards in Rock Springs. This has been an ongoing problem and planning documents in the current open grants include continued efforts for drilling and grouting of coal subsidence in the Rock Springs area. Existing grant plans indicate expenditures of between 32% and 68% of the yearly coal project monies to be spent in the Rock Springs area..

OSM Directive AML-22 requires OSM to insure the States enter Problem Area Data Sheets (PADS) into the OSM AMLIS database. In October 1999 Wyoming hired a contractor to perform a new state-wide inventory of all remaining and potentially eligible mine disturbances. The contractor was also directed to update WY AMLP's AMLIS database. This comprehensive and aggressive inventory effort was scheduled for completion in October of 2001. WY AML AMLIS entries were to be updated, including all unfunded, funded, and completed categories. As of September 2000, WY AML identified and submitted over 650 sites to AMLIS. Of 214 inventory sites identified as coal related, 86 were considered significant enough to be entered in AMLIS. Since 2000, the contractor has continued to add significant number of mine related sites to the inventory. WY AMLP has spent in excess of \$4 million on these inventory efforts.



REOPENED UNDERGROUND ENTRY PREVIOUSLY CLOSED BY WYAML

Because WY AMLP added a significant number of new coal-related sites to AMLIS, the CFO called for a meeting with WY AMLP Administrator to discuss why a certified state is adding new coal sites to their inventory. During this meeting the contractor explained that many of these sites were simply missed during the original inventory in the late 1970's. A more extensive search for information is being conducted including collecting US Bureau of Mine database and maps from the US Geological Survey. Some coal sites were not included in the original inventory because previous landowners denied access for site inspection but access was granted by present owner. Mining plans may have changed or known remaining plans abandoned, and previously ineligible sites are now eligible.

Some sites were added to the inventory because of the deterioration, vandalism, or failure of past AML reclamation efforts and now are in need of additional work. These sites are therefore not "new" sites because they have previously been included in AMLIS. The new inventory included all known underground mine fires whether or not these sites now "adversely affect" public safety, land, water, or property. WY AMLP's policy has been to locate and monitor underground fires, addressing through reclamation activities only those determined to present a substantial hazard or adverse affect.



TYPICAL ISOLATED SPOIL PILE ASSOCIATED WITH PAST COAL MINE

Other sites added to the AMLIS database may not have posed a hazard when the original inventory was completed. Some of these sites have incurred erosion into mine workings, rotting timbers, and failure of inadequate closures. Some coal sites were added as the word got out to the public that there was an AML program and additional sites continue to be reported to WY AML by landowners, hunters, Title V staff, and hikers.



VANDALIZED COAL MINE ENTRY PREVIOUSLY CLOSED BY WYAML

Many of the coal sites inspected by the 2000 inventory team were recorded as having no hazards and minimal if any adverse affect. Examples are sites with spoil, slack, or gob piles that have naturally revegetated and stabilized, shallow exploratory pits, absence of portals, shafts, adits, or stopes, and small sites in remote locations. These sites may be eligible for reclamation but are low priority. Extremely high hazard non-coal sites have been funded ahead of these low impact sites with the knowledge and approval of OSM as documented in past grant agreements. Some low impact sites on federally managed land were included in the new inventory at the specific requests of the Bureau of Land Management (BLM) under a cooperative agreement with WY AML. While many of these sites would not be addressed by the WY AMLP, BLM is providing funding for specific reclamation activities related to watershed enhancement.

As a result of the findings of the new inventory effort, the CFO required the WY AMLP to submit an action plan and timetable to complete reclamation of the eligible coal sites. An action plan and timetable was submitted which included the grant years of 2000, 2001, 2002, and 2003, with the last reclamation of these new coal sites to be completed in 2004. The state explained that these projects timelines are driven by time required for site evaluation, hazard identification, prioritization, and planning, design, procurement procedures, bid process and contractors mobilization. AML has made progress towards meeting this agreed upon schedule but all of the coal projects have not been completed.

During the summer of 2004, the WY AMLP continued with additional statewide inventory work. Teams of consultants were armed with Global Positioning System instruments, detailed maps, and approximate locations of additional coal sites. The OSM WY AMLP Program Specialist accompanied contractors and State project officers to search for sites identified in various databases as coal mine disturbances. It was found during this sample of sites that there were many duplicates of located sites. The data base often indicated numerous mine sites located near

one another in a small area. Upon inspection, it was found that there was only one mine disturbance. Some of the multiple "mines" showing up on the database sources were actually multiple features of the same mine. Mine related features were inspected in Sweetwater, Carbon, Johnson, and Campbell Counties. Many of the features consisted of coal slack piles, shallow subsidence depressions, remote underground openings, and sites that had previously been reclaimed by WY AMLP. By far the majority of these features did not appear to pose a threat to public health and safety. Most features were located far from population centers, roads, schools, etc. No coal fires observed were threatening homes or other structures. Some portals that had previously been closed by WY AMLP have reopened due to weathering or vandalism. A group of subsidence holes have opened up in an area outside Rock Springs known as Vail Flats. There are no nearby residences but bike trails and other evidence indicate frequent usage by the public. Two underground openings have reopened near a residence in Reliance. These openings are large enough for small children to enter and pose a hazard. Many sites were never located by the teams or did not exist. Many of these "phantom" sites were located in remote high plains desert areas. Based on these field inspections, it appears that the WY AMLP estimates of coal sites that were presented before Congress were far overestimated.



POORLY CLOSED MINE ENTRIES AT BOND FORFEITURE SITE

AML Program Reauthorization

Authorization to collect the AML reclamation fee expires September 20, 2004. Various legislative proposals are under consideration by Congress which may make substantial changes to AML program requirements

Public Facilities

WY AMLP funds construction of public facilities that are in communities adversely affected by past mining. To date, WY AML has funded 44 public facilities projects. These projects include schools, hospitals, roads, city streets, water treatment plants, sewage systems, and clinics. Wyoming AML has made multi million dollar commitments of about \$7.75 million to fund ongoing construction of several public facility projects through future grants. If AML were to abruptly discontinue annual grants to these projects, the project managers could initiate liability issues with WY AMLP.



COAL SLACK PILES TYPICAL OF THOSE FOUND AT COAL SITES Coal site reclamation, and remediation of previous AML work, and pre-law company reclamation continues in the state. The AML state-wide coal reclamation design contract is addressing 26 sites this year. Coal sites near Rock Springs, Superior, Hanna, Sheridan, Thermopolis and Glenrock continue to deteriorate, subside, and create hazards. Future funding will be needed to address these sites.



ISOLATED MINE SUBSIDENCE, SWEETWATER COUNTY, WY

Program Maintenance

Pursuant to 30 CFR 884.15, Wyoming is required to submit to OSM a reasonable timetable for submitting an amendment to the State reclamation plan. Wyoming is required to submit a schedule for revising Statutes to remove certain language concerning lien requirements. Wyoming is also required to submit a schedule for revising Statutes language concerning establishing contractor's eligibility by use of OSM's Applicant Violator System. This evaluation year, Wyoming submitted a schedule to introduce amendments to Wyoming Statutes in the 2005 Legislative sessions concerning both of the program deficiencies OSM has identified.

Part IV. Financial Administration (Grants)

CFO conducted financial oversight during the evaluation period. CFO visited DEQ offices in Cheyenne, Wyoming and reviewed financial information. Specifically, draw-downs, payroll approval, travel, property, A-133 Audits, program income, timeliness of grant applications and reports, were reviewed.

No drawdown analysis was conducted for AML grants. Wyoming DEQ has a Cash Management Improvement Agreement and therefore OSM is not required to conduct drawdown analysis.

Title IV accounting records were reviewed to ensure that the State is following their policies and procedures for payroll. Both the supervisors and the employees are required to sign monthly timesheets. Signatures were adequate, and records are being kept not only of weekly hours worked, but for sick and annual leave taken. No problems were found.

Travel policies and procedures were reviewed to include allowances for air travel, per diem, lodging and mileage for personal vehicles. Seven individual's travel for the past year who worked was sampled. Thirty-nine vouchers were scrutinized. No problems were found. Supervisors are approving the vouchers. Employees are also signing them as required by Wyoming policies and procedures. Per-diem and lodging allowances were appropriate. No problems were found.

Wyoming is up to date with their property reports. Based on the current FAM property reporting requirements, the State is reporting property correctly though the number of properties required to be reporting is dwindling. No problems were found.

There are no outstanding findings for A-133 audits pertaining to the Title IV program, nor were there any that had to be resolved during the reporting period. A-133 audits are up to date and the planning of future audits is up to date.

There was no program income reported when this oversight was conducted.

DEQ is timely in their reporting required cost and progress reports and they are timely with their grant applications for Title IV.

SUMMARY

Site visits were coordinated with the WY AMLP Administrator of on-the-ground and office evaluation of topics. No problems were identified in the evaluation of past projects, on-going projects, procurement procedures, program maintainence, and financial administration.

The WY AMLP continues to be implemented according to the approved State reclamation plan and administered in a sound professional manner.

