

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 2007

August 21, 2007

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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 Wyoming Abandoned Mine Land Program (WYAML) 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 WYAML 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.

This EY 2007 evaluation year consisted of a full twelve month period beginning on July 1, 2006 and ending on June 30, 2007.

The assessment of the WYAML included enhancement and performance reviews of selected topics. Specific topics are WYAML site inventory, entries into the OSM AMLIS database, overall reclamation success, the Abandoned Coal Mine Lands Research Program and program maintenance. Reclamation site visits were conducted jointly with WYAML project managers.

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 a hazard 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. WYAML has 21 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 continues.

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
WYAML	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
TIPS	Technical Innovation and Professional Services
GIS	Geographical Information System

WYAML administer the AML program with a staff of 14.3 full time employees (FTE's) from three offices. Field Offices are located in Lander and Casper while additional Project Managers and the Administrators office are located in Cheyenne. The WYAML Project Officers provide most of the project management. WYAML continues to hire consulting engineering and design management firms to assist the WYAML 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.

WYAML 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 the best qualified firms for each project from reviews of submittals and then interviews each selected contractor. The contractor is selected after the DEQ Director, the AML Administrator and the individual project manager concur. The project manager 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 WYAML P.

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

There have been no reported fatalities during this evaluation period. However, there was one injury sustained at the Rambler copper prospect site, an abandoned mine site at the Curt Gowdy State Park west of Cheyenne, WY. AML Funds were shifted from other projects and the site was immediately reclaimed to prevent any additional incidents at the Rambler copper prospect site. There are many other Wyoming sites where similar conditions pose public safety hazards. Wyoming has 955 sites recorded on AMLIS.

Wyoming 2007 grant is \$30,472,022 of which \$1,413,297 is used for administration of the program. Wyoming's administrative costs are less than 5 percent of the grant amount. Wyoming has the highest average grant dollar amount per FTE (\$2.01 million/FTE) and the second lowest percent of administrative costs (4.14 %) for the total grant. Only one other State has a lower administrative cost percentage (2.87 %). However, that State's AML program is only operating with 3.5 FTEs and \$ 1.6 million grant.

Other States' AML administrative costs are 10.4 percent or more of the total grant amounts. Wyoming's AML staff manages the most construction expenditures per individual (\$2 million/FTE) than any other State. Wyoming's AML program administrative cost is at least 2.5 to 5 times more efficient than all other State AML programs (except the State mentioned above). This reflects the efficiency of the Wyoming AML program and its administrator and project managers. (Source: 2005 OSM Annual Report)

Part II. Noteworthy Accomplishments

In the last twenty years, the WYAML has reclaimed over 1417 abandoned mine sites encompassing over 32,244 GPRA acre-equivalents. Approximately \$129.2 million has been spent on coal reclamation. Approximately 117.5 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 and underground mine reclamation. Approximately \$88.8 million has been spent reclaiming abandoned industrial mineral sites. Approximately \$18.8 million has been spent in the reclamation of metals mine sites throughout the State. Reclamation of soft-rock and aggregate sites, including uranium mine sites have accounted for about \$97 million in reclamation. Significant hazards remain to be mitigated and future funding will be required. WYAML's inventory of potential reclamation sites continues to be refined as their inventory is presently includes over 270 coal sites and over 600 non-coal sites. WYAML has invested approximately \$96.6 million in public facility projects around the state. This evaluation year WYAML has provided funding for \$2.76 million for public facilities projects. The remaining funding has been split among a mine subsidence insurance program, administrative costs, engineering services, environmental survey and compliance services, and establishing a trust fund to address future mine subsidence and reclamation needs.

For the large scale coal reclamation effort presently in place, WYAML is utilizing a sophisticated project management software system that allows efficient tracking and management of multiple consultants' and contractors' schedules. This provides AML a better planning tool for coordination and reclamation of coal sites under a number of reclamation projects. These include five current statewide coal reclamation projects, four Hanna area projects, and two special subsidence abatement projects. Coal mine fires and Rock Springs subsidence mitigation are scheduled and managed separately.

Public Outreach

Wyoming DEQ continues to solicit public comment and invite input on the WYAML program. AML publishes notices of intent to perform work and invites public participation. 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 also held a meeting in Casper in April 2007 to coordinate the input of project progress and other information. Each contractor reviewed the spreadsheet and made changes for both the progress and costs.

Wyoming DEQ maintains an excellent Web site that includes links to information on AML dangers, a 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 hazards.

Part III. Results of Enhancement and Performance Reviews

“Topic Evaluations Reports” containing much more detail have been prepared and are on file in

the 2006 Annual Evaluation file at the Casper Field Office. The following are only summaries of those reports.

Overall Reclamation Success

The overriding goal of the Abandoned Mine Reclamation Program is reclamation success. The main focus of both OSM and WYAML is to address the reclamation of priority 1 & 2 coal hazards.

The 2007 evaluation focused on reclamation success and recent reclamation efforts that occurred during the evaluation period. The sample for the evaluation of reclamation success included the Hanna #1 Fire, Pit 8 Spoil Ridge, Hanna #2 South, and Nugget Pit.

Hanna #1 Mine Coal Fire (Project 17G)

WYAML met the goals of abating hazards and improving conditions at the Hanna # 1 coal slag (coal waste) fire. The coal slag fire had ignited grass fires on two separate occasions. One fire burned on to the Hanna High School property. The coal slag pile extends from Anadarco property on to Union Pacific Railroad property to the north. Union Pacific Corporation has refused to give WYAML permission to address the hazards associated with the coal slag pile continuous on the two properties. Fortunately the fire was extinguished before it burned onto the Union Pacific property. The Project was completed fall 2006. The land use in the project and surrounding areas is wildlife habitat and livestock grazing, however there are signs of some recreational use by ATVs. WYAML's reclamation is compatible with that land use.

WYAML abated the original hazards posed by the mine slag pile. However, there is a possibility that another fire can ignite on the same coal waste pile remaining on the adjacent Union Pacific Corp. property. The WYAML buried tons of coal waste and regraded and seeded the surface with suitable plant growth material. New vegetation was observed throughout the reclaimed area. Vegetation included seeded and volunteer species.

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Photo 1. Hanna #1 Mine Fire. Hanna High School is in the background with evidence of the fire

Pit 8 Spoil Ridge (Project 7F)

Pit 8 was a surface coal mine that operated between 1968 and 1973 on lands managed by the Bureau of Land Management (BLM). The pit was located above a sandstone outcrop adjacent to Carbon County road 291. An active golden eagle nest is located in the sandstone outcrop. WYAML made certain that reclamation operations took place when the nest was not occupied.



Photo 2. Pit 8 Spoil Ridge (Project 7F)

Spoil material was graded to fill the pit and the remaining spoil was pushed down the slopes. The entire area was seeded. Additional work was required to address erosional problems.

It was determined that there would be no effect on cultural resources. Potential impacts to the pair of golden eagles' nesting site was mitigated by precluding any project activity during the nesting and fledgling stages of the eagles' life cycle.

Hanna #4 South (Project 7F-5)

In spring 2007, this project was nearing completion. Only fencing and revegetation remained during the field site visit. The abandoned Hanna #4 coal mine site was mined from 1933 through the 1954 by Union Pacific Coal Company. The site included five mine portals, 60 acres of mine subsidence features, drainage problems impeding Stink Creek, several coal slag piles and removal of a haul road.



Photo 3. Hanna #4 mine – Phase 2 run-off attenuation and mass excavation project includes this detention structure and armoring of the stream channel to protect the town of Hanna, WY.

Nugget and Timber Pit Mitigation (Project 7-F)

The Nugget Pit and Timber pit were surface coal mining operations abandoned prior to the enactment of SMCRA. The two pits, totaling 69 acres posed a public safety and health hazard to the near by communities of Elmo and Hanna. There were 80 foot high

highwalls and water in the bottom of the pit. In the 30 years the site was left abandoned only minimal vegetation re-established on the spoil piles. The WYAML backfilled the pits and revegetated the area.



Photo 4. Nugget and Timber Pit Mitigation – Successful reclamation of the Nugget pit north of Hanna, WY blends in with adjacent reclaimed lands..

Integration with the Abandoned Mine Land Inventory System (AMLIS) - Coal Problem Area Description (PAD)

Wyoming uses criteria very similar to those in AMLIS to prioritize its coal problems but also considers typical Wyoming activities, land uses, and settings. DEQ entered PADs into AMLIS for the sample coal projects using AMLIS criteria to prioritize them. DEQ entered PADs into AMLIS for the sample projects before requesting authorizations to proceed.

At this time, we are unable to determine with certainty how many coal problems remain to be addressed in Wyoming. However, DEQ has estimated this figure to be 352 coal AML sites. The State continues to address coal as its first priority. On-going noncoal problems are being completed and emphasis and resources are being redirected to coal problems.

We recommend DEQ continue to refine its inventory data and enter coal PADs in AMLIS to accurately show the number and priority of unreclaimed coal problems remaining in the State.

Program Maintenance

There are no outstanding AML program deficiencies at this time.

Appendix A

State Comments and CFO's Responses on the Draft Annual Evaluation Summary Report

WYAML P provided verbal comments focusing on typos and a mislabeled photograph. These errors were corrected.