

DEPARTMENT OF INTERIOR

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT



Annual Evaluation Summary Report

for the

Abandoned Mine Land Reclamation Program

Administered by the State

of

WYOMING

For

Evaluation Year 2001

(October 1, 2000 to September 30, 2001)

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Cover Photo: Typical Gas Hills Uranium Mine Highwall and Pit Hazards

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 (AML) program 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 Wyoming AML 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, specific methodologies for evaluation, and assist one another in the preparation of the final report.

OSM's Casper Field Office (CFO) in partnership with Wyoming AML Division identified specific topics to be reviewed during the review period. Wyoming AML Division and the CFO worked in concert to write the Programmatic Agreement.

The assessment of the Wyoming AML program included enhancement and performance review of selected topics. Specific topics are past reclamation, ongoing reclamation, and financial administration.

The State certified on May 25, 1984 that all inventoried coal mines eligible for AML reclamation have been completed, or were being reclaimed or scheduled for reclamation. As new coal sites are found, the State gives them first priority over non-coal sites and reclaims them as soon as possible. Wyoming gained authority to use AML funds for public facility projects in 1992. Wyoming currently concentrates on the reclamation of non-coal mine sites and constructing public facility projects.

Wyoming does not have an AML Emergency program and therefore emergency projects are administrated by OSM. However, Wyoming AML Division assists OSM with AML emergencies, since most emergencies are initially reported to Wyoming AML. When this occurs, Wyoming contacts the OSM Casper Field Office and 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 emergency and offers assistance through their existing contractors.

Overall, Wyoming administers its AML program in a professional manner resulting in high

quality performance of the program. Excellent communication and cooperation between OSM 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
AMLPL	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

Part II. Noteworthy Accomplishments

In the last twenty years, the AMLP has reclaimed over 850 abandoned mine sites encompassing over 30,000 acres. Approximately \$103.6 million has 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 \$71 million has been spent reclaiming abandoned bentonite pits in the northeast and northern portion of the state. Approximately \$17 million has been spent in the reclamation of hard-rock mine sites throughout the State. Reclamation of abandoned uranium mine sites has accounted for \$60 million. Uranium, conglomerate, phosphate and hard rock reclamation makes up a bulk of the remaining work to be done. AMLP initiated design activities preliminary to reclamation of phosphate mines. AMLP has invested over \$57 million in public facility projects around the state. This evaluation year AMLP has provided funding for \$7.1 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 amount of funding used for construction of public facilities has been approximately 30 per cent of the total construction expenditure and is expected to remain constant in the coming years.

The University of Wyoming and the DEQ signed an agreement in 1990 to use \$270,000.00 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 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.

The WYAMLPL initiated an aggressive effort to update their site inventory in 2000. Project

sites were added to the inventory and listed on the OSM AMLIS. Additional coal sites were added that were previously unidentified due to lack of access or discovery during initial inventory of the late 1970's.

Two new Project Officers have been hired by WYAML P during this evaluation year. These two officers came onboard near the end of this evaluation year. The WYAML P lost distinguished colleague Mr. Ed Francis this year. Two additional project officers are expected to retire early next year. The WYAML P continues to maintain a highly competent staff adequate to administer and carry out the workload.

Two WYAML P Project Officers participated in abandoned mine reclamation training conducted by OSM this EY. One officer attended the AML Design Workshop course and another attended the Acid Forming Materials and Expert Witness courses. OSM contributed \$3084.62 to the WYAML P for expenses incurred in employees attending OSM sponsored training.

The WYAML P Program Administrator and two Project Officers attended the National Association of Abandoned Mine Land Program annual conference and workshop in Athens, Ohio, August 19-22, 2001. Past WYAML P Program Administrator and NAAML P President, Stan Barnard was honored at the conference. An annual award was established in Stan's name and a trophy presented to an individual selected for outstanding contributions to the goals of the NAAML P Association. The Stan Barnard trophy will permanently reside in the Department of Interior Building in Washington D.C.

Public Outreach

In October 2001 the WYAML P hosted State Office BLM, Lander BLM and Washington BLM mine reclamation representatives on a tour of AML mine sites on Federal lands in the South Pass and Gas Hills districts. Past reclamation of gold, iron, and uranium mines was observed. The tours were designed to promote technology transfer and increase cooperation among the different agencies.

In 1997 the WYAML P released a reclamation handbook titled Handbook of Western Reclamation Techniques. This work was supported in part by the Abandoned Coal Mine Lands Research Program at the University of Wyoming. This support was administered by the Wyoming Department of Environmental Quality, Land Quality Division from AML funds returned to Wyoming from the Office of Surface Mining. This handbook has been distributed at many schools, OSM forums and national reclamation conferences such as the Association of Surface Mining Reclamation Engineers. As of this reporting year, approximately 2000 copies of the handbook have been distributed.

WYAML P participates in the Mine Safety and Health Administration "Stay Out Stay Alive" (SOSA) Program. A public outreach booth was set up at the 2001 Wyoming Game and Fish Expo in Casper where information on the program was available and publications distributed.

Project Officer Tim Richmond contributed a paper to the OSM sponsored “Bond Release Forum” in Gillette, Wyoming. Mr. Richmond also conducted a tour of pre-SMCRA AML bentonite mine reclamation in Northeast Wyoming.

The WYAML P received a letter of appreciation from the Superintendent of the National Park Service September 12, 2001. This letter was written to commend the work WYAML P completed inside Yellowstone National Park. Six abandoned gravel pits and quarries totaling more than sixty-eight acres, and five miles of access road have been reclaimed in cooperation with Yellowstone National Park and the National Park Service. This work has enabled the NPS to make the park safer for visitors and staff, mitigate environmental degradation that was a direct result of past mining activities, and restore valuable wildlife and fisheries habitat. These abandoned gravel pits were located in a high visibility area along John D. Rockefeller Memorial Parkway. According to the NPS these projects are healing scars on the parks landscape that have impaired visitors experiences for decades.

The WYAML P also received a letter of commendation from Wyoming Governor Jim Geringer October 12, 2001. The letter cited praise for the WYAML P received from citizens in the Ranchester and Sheridan area. The citizens complimented WYAML P for the exceptional assistance provided in containing the coal slack fires near the old coal mining town of Monarch. The citizens also praised WYAML P for providing quick response in getting reclamation crews to their location. The quick actions of WYAML P prevented further personal injuries, and quite possibly loss of lives.

Part III. Results of Enhancement and Performance Reviews

Past AML Reclamation

More than twenty sites were selected for evaluation this year. The on-site reviews were conducted from the ground and from the air. The State owned airplane was used to review the majority of the abandoned uranium mine sites in the Gas Hills, Hanna, Green Mountain, Crooks Gap and Shirley Basin mining districts. Among many remaining hazards yet to be reclaimed at uranium mines include highwalls which were left from previous AML reclamation. At the time of reclamation, hazards were addressed by AML as the program received funding. Due to the size of the mines and numbers of hazards, some projects remained uncompleted. The AML plans to return to some of these sites and perform maintenance and to completely eliminate remaining hazards.



Pathfinder Uranium Mine Reclamation and Remaining Hazards

The CFO attended a bid tour at the Atlantic City Mine. The purpose of the tour was to show potential contractors areas of the mine requiring additional remediation. Future work will include pumping grout into voids and concrete culvert at the toe of the large tailings dam. This dam creates a lake that backs up water below the edge of State highway 28 near the Bridger National Forest boundary.



Atlantic City Iron Ore Mine

AMLP has reclaimed 38 acres at the abandoned Atlantic City Iron ore Mine this EY. This mine is located near national historic sites along the Oregon Trail. The goals of site

remediation included reducing blowing dust originating from the tailings basin and from the upland waste rock area. Seepage from the North tailings dam has caused surface erosion. Diversion canal and north tailing dam seepage which has resulted in the accumulation of sulfate salts. These salts are toxic to plants and prevent re-vegetation on the tailings basin surface. Re-vegetation of a disturbed surface in a harsh alpine climate where there is a dearth of available natural topsoil materials is a reclamation challenge. Possible flood damage from the failure of railroad fills is a hazard that must be abated. The reclaimed portion of the tailings basin in the plan covered about 165 acres. About 30 acres were covered by the footprints of the rock berms, and about 112 acres required topsoil and subsoil 24 inches thick. Future reclamation at the site will include plugging the tailings pond decant pipeline with concrete or sand/grout in combination with relatively inexpensive and readily available cobbs material. An onsite bid tour was conducted with contractors in August 2001. Work is scheduled to begin on this phase of reclamation in 2002.

A site visit to the Sunrise iron mine near Guernsey was conducted in September 2001. The purpose of the visit was to observe older reclamation performed by WYAML. The Sunrise Mine is an abandoned pre-SMCRA iron ore mine in Platte County. Reclamation areas observed were completed in 1997. Reclamation included backfilling and grading some pit areas, fencing off deep subsidence holes, burial of asbestos materials, and closure of many shafts and audits. It was noted during this site visit that additional surface subsidence has created new public safety hazards. The Sunrise Pit covers 41 acres, has water 300 feet deep and vertical high-walls more than 600 feet tall. Due to the enormous earthmoving challenge and tremendous cost that elimination of the pit posed, a chain-link barrier fence was constructed in 1997 around the perimeter to deter access. Advancing subsidence of the pit is now threatening to encroach upon and undermine the barrier fence and viewing stand constructed by WYAML contractors. Erosion from concentrated surface water drainage from un-reclaimed spoils now threatens to expose asbestos materials buried down-slope. New subsidence features have appeared in a number of places posing additional safety hazards to humans and wildlife. These hazards are planned to be included in a remediation project scheduled for immediate attention by WYAML.

The Chicago Pit area of the Sunrise Mine was reclaimed in 1996 and 1997. The Chicago Mine area, at the northern end of the Sunrise mining complex is where the most recent mining occurred. Part of the area was not eligible for AML reclamation. In 1992, the Federal Bankruptcy Court declared abandonment and bond forfeiture. The forfeited bond and reclamation work was turned over to the Wyoming AML Program. Seventy-nine acres of ungraded spoils, highwalls, and access roads were regarded, retopsoiled, and seeded. This reclamation appears to be successful. The vegetation cover is more than adequate and surface soil erosion is minimal.



Chicago Pit at Sunrise Mine



H & I Spoils Uranium Mine in the Gas Hills

Hazards created by large uranium mines in the gas hills region have required a large part of the money needed to be spent in Wyoming to eliminate health and safety hazards. Large pits of acid water, vertical highwalls, radioactive spoils and severe erosion pose hazards to human and wildlife. Since the availability of funding each year is limited, the WYAML P has chosen to eliminate hazards from large sites in phases. As more funding becomes available, the WYAML P plans to return to some to the uncompleted sites such as the H & I Spoils Mine and complete reclamation.

A generic environmental assessment was completed in 1987 on the Gas Hills uranium

district. This document provides the general background information on about 40 square miles comprising the Gas Hill Uranium District. Additional information on specific projects are added as supplements. WYAMLLP provides updates with each project submitted for authorization to proceed. These updates are included in a Detailed Documentation package with information specific to each project area. The updates are needed because resource evaluation reports including Threatened and Endangered species surveys expire annually. Each project application includes a determination of eligibility by the State Attorney General's office. Each project application also includes a determination of effect by the State Historic Preservation Office.

Hazards in the Day Loma Mine area include 10,380 feet of extremely high and dangerously unstable highwalls; 14 acres of acidic (PH 3.8) water; subsiding underground mine workings; 240 acres of high-radioactive material; degraded surface water; 1254 acres of open pits; unstable spoils and drainages; abandoned underground workings and equipment; and highly eroded surface areas. The surface owners of this area are private and BLM. WYAMLP coordinated their reclamation plans with the BLM. WYAMLP reclamation work focused on eliminating or reducing extreme dangers to public health and safety.



Day Loma Mine

The Day Loma mine posed some of the largest hazards and difficult challenges facing WYAMLP in the reclamation of uranium mines. Very large open pits filled with acid water, highwalls, drill holes, toxic spoils, major erosion, low-level radioactive material, and access roads posed safety hazards and environmental deterioration. The WYAMLP is eliminating or minimizing the hazards and degradation by reclaiming the area in phases. The reclamation is progressing in a workman like manner.

Financial Administration

CFO conducted financial oversight during the evaluation period. CFO visited DEQ offices in Cheyenne, Wyoming and reviewed financial information. Specifically, drawdowns, timeliness of grant applications and reports, audits, accounting, property and travel were reviewed.

Wyoming has a U.S. Treasury Cash Management agreement covering the AML program and therefore no drawdown analysis was conducted. The agreement has been updated and covers the timeframe of this oversight.

DEQ continues to report property and transfer property to new grants in a timely manner. A new property inventory was taken during the spring of 2001, meeting Common Rule requirements.

DEQ was timely regarding both reporting financial status of the existing grant and filing their grants.

Travel taken by the LQD was reviewed to include Wyoming's travel policies and procedures. Three individual's travel were reviewed. This included over forty trips. Per diem, lodging rates were correct. Approvals as required by policy were also adequate.

Program income for the Title IV program was reviewed. Almost the entire source of income is derived from the sale of property and as a result does not occur every year. Bidder packages are not sold and thus are not a source of income for the program. The last program income reported was in 1997 and was for over forty-three thousand dollars. This income was used as part of the program and reported as part of the cost. Since then there has been no program income earned.

There was one A-133 Audit finding during the period. It did not involve any questioned costs. DEQ is required to monitor sub-recipients and ensure that audits are being performed on these entities. Wyoming agreed with the finding and notified contractors of this requirement. DEQ/AML will conduct follow up and assist contractors if they encounter problems. The finding is resolved.

During a review of an AML grant application, a question arose regarding an economist's position being funded by the AML program. This was to ensure that the position was rendering services to the program. No problems were found.

Four competitive construction bids were reviewed to ensure that Wyoming AML is following their policies and procedures regarding awarding the bid to the lowest bidder. Bid estimate sheets were reviewed. Wyoming AML is selecting the lowest bidder.

Summary

Site visits were coordinated with the AMLP Administrator for on-the-ground and office evaluation of topics. One or problem was identified in the evaluation of past projects, ongoing projects, and financial administration. The vandalism of the Franklin Mine open pit cover was identified as a maintenance issue that will be scheduled for repair in the spring of 2001 prior to the peak tourist season in the South Pass and Atlantic City areas.

Citizens input and concerns are monitored through various contacts with the public. OSM observed such contacts as AMLP participation in, public information meetings, seminars published public notices, news releases and reports.

Part IV. Accomplishments and Inventory Reports

The AMLP program accomplishments in the past ten years include: 30,148 surface mined acres reclaimed including highwalls, landslides, refuse, and water impoundments; 1,332 mine openings safeguarded including shafts, portals, adits, stopes, and subsidence; 21 coal fires abated or controlled; and one acid mine drainage project completed. A total of \$362 million dollars in AML funds have been awarded the Wyoming AML Program.

Wyoming has completed 11 projects during the past year. Work included closing 43 shafts and adits, and 2 major projects grouting under residential and commercial structures at a cost of \$3.6 million, and reclaiming over 2620 acres. Wyoming also completed 5 public facility projects during this evaluation year.

Because coal related sites in Wyoming are reclaimed, AMLP continues to increase funding for non-coal reclamation and public facilities projects. During the past year AMLP made significant progress in reclamation in the Gas Hills Uranium District and complete closure of several hazardous shafts, portals, and reclamation of bentonite mines.

The AMLP in Wyoming continues to be implemented according to the approved State Reclamation Plan and administered in a sound professional manner.

