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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.

This EY 2005 evaluation year consisted of a full twelve month period beginning on July 1, 2004 and ending on June 30, 2005.

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, reclamation sites, and financial administration procedures. Reclamation site visits were conducted jointly with WYAML P project officers. Sites included pre-construction, mid-construction, and post-construction sites at abandoned uranium and coal mines.

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 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
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
TIPS	Technical Innovation and Professional Services
GIS	Geographical Information System

WY AMLP continues to administer the AML program with a staff of 13.3 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.

There have been no reported fatalities or injuries at any abandoned mine site, however there remain many sites where conditions pose public safety hazards. Wyoming has 1456 sites recorded on AMLIS.

Wyoming 2005 grant is \$29,926,306, of which \$1,236,375 is used for administration of the program. The ratio of administrative costs to construction costs of the WY AMLP is 4.1 percent, which is considerably low. This reflects efficiency of the Wyoming AML program and its managers and project officers.

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 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 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 two 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 \$86 million in public facility projects around the state. This evaluation year WY AMLP has provided funding for \$4.5 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.

One WYAMLPL employee participated in abandoned mine reclamation training conducted by OSM National Technical Training Program this EY. One employee attended the Underground Subsidence SUB-51 Class. OSM directly contributed \$1,609.68 to assist the State in obtaining this training. In addition, OSM contributed technical assistance to WYAMLPL through participation in the TIPS Geospatial Conference and GIS Project presentation.

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 partnered with a local church youth group to plant trees on a reclamation

site in the gas hills uranium district.

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.

Part III. Results of Enhancement and Performance Reviews

Oversight visits to mine sites were conducted in the Gas Hills uranium mining district and Hanna coal field in July 2005. One of the projects inspected in the Gas Hills area was Project 16L Sunset E Pit. The Sunset pit is an abandoned surface uranium mine which was reclaimed by BRS Engineering and reclamation firm contracted by WYAML P. The site consisted of an open pit, spoil piles and dangerous highwalls. Reclamation was completed in 2005. The WYAML P Project Officer provided guidance and suggestions throughout the process to encourage innovative reclamation practices designed to recreate a living community atmosphere for wildlife and a small ecosystem which blends into and complements surrounding lands.

Sunrise mine exhibits some excellent surface mine reclamation practices that are not always apparent in many AML projects. All highwalls have been removed with grading and ground shaping blending into adjacent lands. The reclamation area was graded to create undulating slopes toeing out into a closed basin. No thru-flow or positive drainage terminates outside the reclamation area but will instead provide seasonal water sources for grazing and wildlife. Large durable stone riprap has been imported and placed in key areas of surface drainways to retard erosion and slow down surface runoff. The surface of the suitable topsoil material has been pitted with a unique implement to create microtopography which harvests snow and holds moisture. These pits also provide some surface stability by acting as energy dissipators when runoff travels down the slope. The long steep slopes are broken up by terraces that are engineered and built into the slope prior to respreading cover soil material. A spring has developed in a slope area, that has been enhanced by WY AML P, that wildlife have been using.

Vegetation seeded this spring is thriving despite continued drought and sandy soils in the area. A diverse community of warm season and cool season grasses, legumes, shrubs, and forbs have emerged. Evergreen trees have been planted on a south facing concave slope. The seedlings are greenhouse grown and were planted as part of a church youth group project in partnership with the WYAML P Project Officer. Trees were hand planted with dibble bars. Tree seedlings roots were paper encased and inoculated with mycorrhizae prior to planting. A biodegradable mesh sleeve encases the seedlings to discourage predators from harming them. Bamboo rods were inserted with the trees to provide support. The WYAML P Project Officer intends to monitor trees and vegetation at this site and perform needed husbandry. Many of the seedlings were green and appeared to be living. A few were discolored and appeared stressed, possibly due to drought conditions. WYAML plans to use herbicide to control any vegetation that appears to be competing with trees for moisture, light and nutrients. Post reclamation management practices will

also include adding soil amendments as necessary. This project is an excellent example of AML reclamation incorporating reclamation techniques and extra measures not often used in standard AML practices.



PROJECT 16-L SUNSET E PIT RECLAMATION

Abandoned coal projects eligible for AML work were inspected in the Hanna coal fields. The majority of the town of Hanna was undermined prior to enactment of SMCRA. As a result of extensive coal mining, surface subsidence is a potential threat. Another issue is the surface water hydrology that has been altered due to past surface and underground coal mining. Drainage alterations pose hazards to the town and its residents. Post SMCRA surface mining activities have reduced the threat of flooding in Stink Creek for years. This threat has increased due to the removal of detention structures by the mining company that have since reclaimed its disturbed area. A threat of flooding remains as a health and safety hazard for much of the town. Downstream from these large altered watersheds are schools, senior citizen center, town hall and the city sewage lagoons. Many residences are now in the direct path of flooding from these drainages. The drain way behind the school in Stink Creek funnels down to a single culvert greatly reduced in size from the upstream culverts.

WYAMLPC contracted out a "master plan" report of investigation to determine the scope of

work required to mitigate threats to health and safety in Hanna. WYAML P is cooperating with and providing assistance to the town of Hanna in planned reclamation aimed at future town expansion and growth. This growth could be substantial and be a result of a new underground coal mine development just a few miles south of Hanna.

The Hanna master plan includes mapping of the areas WYAML P considers have an extreme potential for subsidence. These areas are located where the overburden is less than one hundred feet above the mined out coal seam.



ADDITIONAL RECLAMATION IN THE HANNA BASIN

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 during the 2004 evaluation year, it was determined that WY AMLP did not appear to be properly entering information into AMLIS.

The State agreed to correct any errors on AMLIS. An accounting/project tracking system that can be correlated with standard Consolidated Grant expenditure reports by AMLIS numbers has been implemented. This system assists OSM with its AML oversight responsibilities. The Project Officers have an AMLIS Pad number assigned to each project. When any construction payment voucher is made with regard to that project, the accompany AMLIS number is noted. Achieving correlation between AML grant report figures and AMLIS data has required the State to implement new procedures by both the AML program side and the accounting side. This new tracking system has been in place since December 2004.



HANNA BIG DITCH AREA

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.

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

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.



RECLAMATION ADJACENT TO THE UNION PACIFIC RAILROAD NEAR HANNA.

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).



GAS HILLS URANIUM PIT

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 2005, Wyoming spent 15.7% of the consolidated grant funds on public facility projects.



PRELAW COAL PILES NEAR HANNA AND ELMO

It is estimated that the majority (approximately \$115 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. Most of the work in

the Rock Springs area has consisted of grouting old tunnels underlying the town itself.

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.

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.

AML Program Reauthorization

Authorization to collect the AML reclamation fee is set to expire June 30, 2006. 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 58 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 \$5.25 million to fund ongoing construction of two public facility projects through future grants. Funding of these two long-term projects will be completed, if funds are available in the 2007 grant. Due to the uncertainty of future funding, Wyoming AML has not been making any long-term commitments of AML funds. If AML were to abruptly discontinue annual grants to these projects, the project managers could initiate liability issues with WY AMLP.

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 introduced the required AML plan amendments (30 CFR 950.36) to Wyoming Statutes in the 2005. Legislature approved the changes which have since been submitted to OSM for approval.

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, travel, program income, timeliness of grant applications and reports, Federal lands documentation, accounting, audits and property were reviewed.

No drawdown analysis was conducted for the existing AML grants because Wyoming DEQ has an agreement with the US Treasury and therefore a drawdown analysis is not required.

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

No program income was earned during this period.

There were no new Wyoming DEQ A-133 Audits for the year ended June 30, 2005. There are no findings for the period. There are no outstanding findings for any previous A-133 Audits.

DEQ continues to report property and transfer property in a timely manner. New property is expected to be added to the inventory for the next evaluation year. At that time, the review will verify that DEQ is meeting the Common Rule requirements.

No problems or issues were identified during this review.

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 maintenance, and financial administration.

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