

**OFFICE OF SURFACE MINING
ANNUAL EVALUATION REPORT
for the
New Mexico Abandoned Mine Land Reclamation Program
Evaluation Year 2002
(October 1, 2001 through September 30, 2002)**



Cover Photo:
Cerrillos Mine Safeguard Reclamation Project
(Prior to Reclamation)
Cerrillos, New Mexico

INTRODUCTION

This annual evaluation report is produced by the Office of Surface Mining Reclamation and Enforcement (OSM) in fulfillment of its Statutory responsibility [under the Surface Mining Control and Reclamation Act of 1977, (SMCRA)] to annually assess the accomplishments of the New Mexico Mining and Minerals Division, Abandoned Mine Lands Reclamation Program (New Mexico AML). The annual report consists of OSM's oversight findings based on field inspections and meetings with the New Mexico AML during the 12-month evaluation period beginning October 1, 2001 and ending September 30, 2002.

OSM has responsibility under SMCRA for approving State and Tribal AML Programs in carrying out the goals of Title IV of SMCRA. The primary goal of Abandoned Mine Land (AML) Programs is to mitigate the effects of past coal mining by reclaiming abandoned mines. The primary emphasis is placed on correcting the most serious problems endangering public health, safety, general welfare, and property. Once this is accomplished, secondary emphasis is placed on remediation of mining related impacts on impacted communities.

On behalf of the Secretary of the Interior, OSM administers the Abandoned Mine Reclamation Fund by awarding grants to States and Tribes, to cover their administration and reclamation costs of running their Programs. The OSM Western Regional Coordinating Center's (WRCC) Albuquerque Field Office (AFO) through its oversight process, annually monitors the progress and quality of the New Mexico AML Program.

In conducting this annual review, AFO followed OSM Directive AML-22, which contains general procedures for evaluating Abandoned Mined Land Reclamation Programs. This requires OSM and State Programs to annually develop an oversight work plan with specific topics (principles of excellence) for evaluation during the evaluation period. The work plan identified specific performance measures to assess Program performance for each principle of excellence and to make recommendations to improve performance, if necessary.

The oversight activity draws upon staff from New Mexico AML and OSM. EY-2002 oversight activities involved the following personnel.

NM-AML

Mr. Robert Evetts, Program Manager
Mr. Randall Armijo, Recl. Specialist
Mr. Ray Rodarte, Recl. Specialist
Mr. John Kretzmann, Engineer
Mr. Rick Martinez, Administrator

OSM-AFO

Mr. Willis Gainer, Field Office Director
Mr. Vernon Maldonado, AML Spec.
Mr. Dan Martinez, Grants Specialist

PART I. GENERAL

This annual evaluation report documents the activities and accomplishments of the New Mexico AML Program. In summary, the New Mexico AML Program is considered to be an excellent and well managed State Program. OSM did not make any recommendations for improvement as a result of this year's oversight activities. The New Mexico AML Program has also received outstanding evaluations in the past.

The New Mexico AML Bureau is within of the New Mexico Mining and Minerals Division, which is within the New Mexico Energy, Minerals and Natural Resources Department. The AML Program consists of eight full time employees plus the equivalent of one additional support staff within the Mining and Minerals Division.

The State of New Mexico contains a diversity of ecosystems ranging from high, steeply sloping mountainous areas to semiarid plains and arid desert. Vegetative communities and wildlife are equally diverse across the state. Average rainfall ranges from a high of approximately 20 inches per year to a low of about six inches depending on elevation. New Mexico's coal resource underlies approximately one-fifth of the state's surface (over 15 million acres) and totals over 40.6 billion short tons of coal. A significant amount of pre-law mining has occurred within the state since the turn of the century, leaving numerous high priority hazards. New Mexico's demographics are gradually changing, causing once isolated hazards to now be accessible to its citizens.

New Mexico received primacy under SMCRA on December 31, 1980. New Mexico's AML Program was subsequently approved by the Secretary of Interior on June 17, 1981. Since that time, the New Mexico AML Program has been working on its coal hazard inventory and high priority non-coal. Although the State has not yet certified completion of its high priority coal reclamation, the bulk of the high priority coal reclamation has been completed.

Historically, much of the New Mexico AML Program's reclamation work has involved abandoned coal mines. As the State continues to reclaim the high priority coal hazards in its inventory, resources will also be directed toward safeguarding equally hazardous abandoned "non-coal" mine sites in its inventory that also qualify for safeguarding and reclamation under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). Because of the thousands of abandoned mine sites remaining to be addressed, it is projected that the Program will not have enough AML money to complete all of the high priority coal and non-coal hazards that exist if the AML fee collection is allowed to expire as scheduled in 2004.

Status of Fee Collections and Fund Distributions:

About \$3 million in AML fees are collected annually from active coal production in New Mexico and is deposited in the National AML Fund. As of June 30, 2002, New Mexico has an undistributed State Share balance of about \$18,815,550 in the AML Fund.

PART II. PROGRAM ACCOMPLISHMENTS

Summary of Project Workload:

During this evaluation year, the New Mexico AML Program completed work at Sugarite Phase III, Lordsburg II/Gore Canyon and Socorro West.

Project development activities included National Environmental Policy Act (NEPA) and State Historic Preservation Office (SHPO) compliance surveys and environmental assessment work at Bog Canyon, Derry I-025 II, La Madera, Magdalena North, Gold Hill, Granite Gap, Steins North and South, San Pedro, Cerrillos Historical Park, Sugarite Phase IV, Raton, Dillion Canyon, Stephenson-Bennett, Yankee/Vukonich, Spar Group, Tres Hermanos and Lake Valley.

New Mexico AML developed an agreement with the Bureau of Land Management (BLM) under which they received approximately \$250,000 from BLM to provide temporary safeguarding measures for non-coal hazards located on BLM lands. The first project to be included in this partnership effort was the Orogrande Safeguard Reclamation Project south of Alamogordo, New Mexico.

Reforestation:

OSM has requested that AML Programs nationwide consider promoting “reforestation” efforts as a means of enhancing the quality of the environment and wildlife and to promote efforts to address global warming. New Mexico AML has demonstrated strong support of reforestation efforts through its Sugarite Project near Raton New Mexico. Most of the sites reclaimed in the last few years include tree and shrub seedlings in the re-vegetation plan. New Mexico AML is currently working with the Los Alamos National Laboratory to gather carbon sequestration data from AML sites in the State. Carbon sequestration removes carbon dioxide from the air by putting carbon into the soil and giving off oxygen into the air as a waste product. Remote measuring devices are placed in reclaimed soils to determine how much carbon is being added to reclaimed soils versus unreclaimed soils in predominately Pinon / Juniper areas. This effort is consistent with OSM’s national reforestation effort.

Partnership:

New Mexico AML provided technical assistance to the Hopi AML Program this year by providing contract training. The training included purchasing procedures, contract management, construction management and reporting. The NM AML Staff also provided training and recommendations pertaining to project specification development and code enforcement relating to the Hopi AML Public Facility Construction Program. New Mexico staff actively participated in the 2002 Southwest AML Partnership meeting in Sedona, Arizona which was sponsored this year by the Hopi AML Program.

Protection of Bats / Habitat:

The New Mexico AML Program continues to make a dedicated effort to identify and protect bat populations that use abandoned mines for habitat. New Mexico AML installs bat grates as necessary to provide for access. New Mexico AML has an ongoing contract with the University of New Mexico for bat surveys and closure recommendations for habitat enhancement and preservation. New Mexico AML is also cooperating with the University of New Mexico on a

study to evaluate post-construction / reclamation bat habitat for bat compatible mine closures. New Mexico is providing access to AML sites where bat compatible closures were installed. The closures will be monitored under a grant funded by Bat Conservation International. See Principle 2 of this report for further discussion.

Project Development Work:

The OSM-AFO reviewed grants applications and close out reports and reviewed project packages submitted for funding and issued Findings of No Significant Impact (FONSI) and Authorizations to Proceed for the AML Program. Materials submitted by the AML Program for OSM approval were of excellent quality. This year New Mexico submitted NEPA packages and OSM issued Findings of No Significant Impact with Authorization to Proceed for the Cerrillos and Real de Dolores Projects. Both packages were found to be complete and OSM was able to immediately issue Findings of No Significant Impact and Authorizations to Proceed for the projects without requesting additional information.

Program Maintenance:

On July 24, 1995, New Mexico submitted to OSM a proposed amendment to its AML Plan, regarding the Abandoned Mine Reclamation Act of 1990 and the Energy Policy Act of 1992. The amendment was submitted in response to a September 26, 1994, Part 732 letter. OSM published a final rule in the July 24, 1996, Federal Register approving part of New Mexico AML's amendment and requiring New Mexico address their remaining concerns either through legislative action or an additional plan amendment. During the evaluation period, no amendments were submitted with regard to the AML Plan. New Mexico and OSM met this year to discuss the required amendment. New Mexico AML is currently reviewing those outstanding issues and hopes to resolve them within the next program year and with minimal effort, if any, on the part of the State legislature.

PART III. RESULTS OF ENHANCEMENT AND PERFORMANCE REVIEWS

The oversight workplan for EY-2002 identified three topics or principles for review. The goal of these principles is to evaluate the quality of on-the-ground reclamation work and to generate ideas for improving the program. In evaluating these principles, New Mexico AML and OSM held meetings, inspected various reclamation sites, reviewed quarterly AMLIS printouts and reviewed grants files, NEPA Documents, contract specifications, and procurement files.

This year the AFO conducted three site inspections (two were of active or reclaimed AML sites) in cooperation with representatives from the New Mexico AML Program. New Mexico AML staff sponsored and lead OSM on the site inspection tours of ongoing, completed and proposed AML projects. No short or long-term problems were identified as result of oversight inspections or the review of property accounts.

OSM maintained ongoing communication with the New Mexico AML Program staff and management throughout the evaluation period. In addition, New Mexico invited OSM to meet

with the US Forest Service in Albuquerque regarding partnership opportunities.

Principle No. 1 - On-the-ground reclamation is to be achieved in a timely and cost-effective manner.

There are no performance standards for AML reclamation set forth in SMCRA. OSM inspects field reclamation and may occasionally offer suggestions or recommendations. Each State Program sets its own standards for reclamation as a matter of policy. The New Mexico AML Program has set high standards for itself in the past and continues to do excellent reclamation work and project design work. The New Mexico AML Program has relied heavily on its detailed contract specifications and its contract bidding procedures to ensure the quality and cost effective reclamation that is achieved. The New Mexico State Legislature has adopted a performance based budgeting plan, which requires that all programs have targets and measurable outcomes.

This review showed that reclamation work, accomplished under the New Mexico AML Program, is accomplished in a manner that minimizes the need for maintenance, promotes landscape stability, establishes vegetation and enhances wildlife (where it is consistent with adjacent land uses). This finding is consistent with past oversight evaluations that concluded that reclamation work accomplished under the New Mexico AML Program is of excellent quality and that hazards were effectively abated or safeguarded.

OSM evaluated reclamation success in terms of landscape stability and vegetation success, because these topics seem to accurately reflect the long-term effectiveness of reclamation and stress on-the-ground results. In addition, success has been measured in terms of hazard elimination.

OSM conducted three on-site inspections: Sugarite Reclamation Project, Madrid Reclamation Project and Cerrillos Reclamation Project. However, only two of the sites, Sugarite and Madrid involved ongoing or post construction work. The Cerrillos Project was in the pre-construction stage. The inspections and review of NEPA files, contract specifications and grant reports verified that the goals and objectives expressed in the grant applications, project specifications and close out reports are consistently achieved. Physical hazards, OSM's priority, were effectively eliminated at all sites inspected.

Sugarite Gob Stabilization / Reclamation Project (Phase III):

This AML site is located just east of Raton, New Mexico within the Sugarite State Park. Huge volumes of coal gob piles exist at this site that have been eroding into Chicoria Creek since the site was abandoned. The creek is situated right at the toe or base of the gob piles. Because the material contains toxic materials (for plants), little vegetation was growing on these gob piles and rainfall runoff resulted in huge erosion ditches throughout the face of the gob pile. The volume of the gob piles is so large that hauling of gob to relocate the pile is not an option for reclamation.

The State decided to stabilize the gob pile in place. This approach was based upon foreign technology, requiring “branch packing” the gullies and treating the gob material in terms of pH and nutrients in order to facilitate revegetation. Branch packing involved the placement of downed trees into the erosion channels which is intended to capture and hold sediment, thereby, reducing the erosion ditches over time. In addition, hay bales and straw waddles were installed in about 20 foot contours along the gob pile to control sheet runoff. Approximately 11,200 tree seedlings were planted. Plantings were located just above each contour above the hay bales and/or straw–hemp waddles. The contract called for a specific survival rate, meaning that the seedlings needed to be irrigated if necessary. Due to the severe dry weather the last two years, it was necessary to irrigate the plantings. Finally, erosion control structures (stepped gabions and outlets) were designed and constructed to control discharges from the gob pile into the creek. This is a simplified description of the actual project. The project was done in phases. Each phase addresses stages of reclamation work and also different piles located on both sides of the canyon. At the center of the canyon is the stream channel and a paved road that winds along just west of the stream channel and leads to two lakes situated high above the project area to the north. The northern most lake actually lies partly in Colorado.

Inspection of the project site involved three phases of reclamation. It was readily apparent that the project was successfully stabilizing the gob material. Gob had eroded into the channel and covered the branch packing / trees. The branch packing / trees were successfully holding the gob material in place and filling the channel with gob material. Straw bale and waddle terracing was slowing down runoff velocities and flow. Vegetation was taking hold along the reclaimed areas. Vegetative cover was denser and more diverse in those areas which had been reclaimed the longest. Three-year old reclamation areas were showing that brush and trees were successfully taking root. However, the severe drought conditions currently experienced in the area were definitely making this success difficult. In addition, there is a lot of wildlife in the area, and foraging by deer and bear was apparent in some areas. The project is designed to encourage wildlife habitat so some vegetation loss to wildlife is anticipated. The site included numerous historic structures and artifacts that were successfully avoided by the project. No heavy equipment was allowed on most of the site except for roadways and flatter areas. This project was the most labor intensive reclamation project ever inspected in New Mexico.

The Office of Surface Mining recognized the Mining and Minerals Division, AML Program this year for this project with a Regional Award. In addition, this project received the most votes from an on-line survey, thereby winning the People’s Choice award, also sponsored by the Office of Surface Mining. The AFO as well as the OSM Washington Headquarters Office recognized the project engineer for this project for his unique engineering designs for this and other projects. In addition, AFO recognized the Program’s environmental project coordinator for contributions made to the AML Program for this and other projects.

The New Mexico AML Program is known by contractors to produce detailed design standards and specifications for its AML projects. On-site inspections reveal that the program engineer strictly enforces the design specifications for these projects. The AML Project Manager monitors all aspects of construction and remains on-site through out the construction phase.

Madrid Gob Reclamation Project:

OSM inspected this site in August, 2002. The State was experiencing a severe drought all year.

Although the reclamation work at this site was of excellent quality, lack of moisture this year is impacting the entire state and the reclamation work was no exception. Revegetation efforts although working, were showing definite signs of stress. Revegetation, like farming, is a definite gamble with the weather. OSM found that a good level of revegetation success has been attained at the Madrid site, but it is not yet certain how much of an impact the drought of 2002 will impact this project in the end. Right now, most of the vegetation seemed to be surviving but the winter moisture conditions will likely determine if there will be further losses.

The Madrid Reclamation Project involves the stabilization of numerous coal waste piles scattered all around the east and north side of the town of Madrid, New Mexico. Madrid is located in a mountainous area a few miles south east of Santa Fe, New Mexico. This reclamation site has also undergone numerous phases of reclamation. The town of Madrid has given mixed feedback with regard to the project. Some feel that reclamation takes away from the tourism, largely being attracted by interest in old mines. Others have expressed strong emotions about the health hazards associated with coal dust coming from the waste piles. The New Mexico AML office has had to balance these concerns in its reclamation designs for the project. In addition, the amount of public involvement from this project has been substantial.

Aside from revegetation efforts involving seeding and plantings, reclamation of this site involved mostly grading and stabilizing of gob piles and treating of coal waste material with nutrients, cover material, application soil stabilizing amendments/ mulch (bonded fiber matrix) and drainage controls. The next phase of the project will be the modification of an existing mine drainage structure which will allow surface runoff from the mine area to be directed under a State Highway, thereby reducing the incidence of flooding along the main street and around local businesses. The work will be completed under a cooperative agreement with the New Mexico State Highway and Transportation Department.

There were few signs of erosion and plantings were taking hold, however due to the severe drought conditions, seeding isn't doing as well. Plantings of shrubs and trees may be doing better because the State used dry-water containers as a moisture supplement for the plantings.

The phases of the Madrid Project completed to date look very good. There are additional work phases planned for the Madrid Project including the under-road drainage and reclamation of other areas. The AML Program is considering hauling away a small coal waste pile from near a residential area to another location.

Cerrillos Safeguard Reclamation Project:

This project was in the pre-bid design stages most of the year. AML anticipates that a construction contract will be issued prior to the end of November 2002. There are more than 100 hard-rock mines in the area. The project involves approximately 93 mine shafts within about a six-mile radius. The project will involve many different styles of closures including backfill, fencing, Poly Urethane Foam, and steel frame bat closures. There are many mines that worked the area for silver and gold exploration. These mines were in operation in the 1800's. Many did not produce ore but were prospect portals that produced serious hazards. Some of the mine names are the Mina del Tiro Aroyo a mine worked by the Spanish around 1830 to 1844 and the Bethsheiba Mines which has a pre-historic head-frame that will be protected. The AML Program worked with the SHPO to construct plans and specifications that will protect

archaeological resources when necessary.

The inspection revealed numerous scattered vertical or incline shafts and portals. Most of these shafts pose serious hazards to the public because it would be very easy to stumble into some of these shafts without seeing the hazard. Especially if someone were walking in the evening or at night. Many times, there is not a lot of evidence that there is a shaft because of the limited amount of waste material present near the shaft. Shaft depths range from around 200 feet deep to only a few feet. The project will be done in phases and divided into distinct areas. Although most of the area is accessible by heavy equipment, the project will be done using smaller and perhaps rubber-tire equipment due to landowner preferences. The presence of bat populations is being evaluated for some of the mines, in case bat compatible closures are needed. The NM AML is working with the Santa Fe County, the Bureau of Land Management and the Cerrillos Historical Park Coalition to safeguard these mining hazards and preserve the historical mining landscape. The Cerrillos Mining District is the oldest mining district in New Mexico.

OroGrande Project :

New Mexico AML Program completed the first phase of an anticipated multi-project this year. The work included backfilling of 18 abandoned adits, 19 shafts and one winze. Bat compatible closures were installed at eight adits and five shafts, allowing for airflow. Horizontal bat closures were installed at two shafts and steel bat cupolas were constructed at three shafts. Polyurethane foam closures were used at other openings where adequate backfill was not readily available. The hazards safeguarded include a 200-foot deep shaft, which was the site of a mine fatality in March of 2000.

Lordsburg II/ Gore Canyon Project :

This project was completed this year. The project consisted of safeguarding 114 hazardous mine openings. These included mechanical backfilling, installation of two bat cupolas, one special steel picket fence at a shaft used by bats and one ventilation grate.

Real de Dolores Mine Safeguard Project :

This project is near Santa Fe, New Mexico. Construction work began on this project the last week of September of this year and consists of closing 13 hazardous openings. These include backfilling eight shafts, installation of polyurethane foam closures at two openings, one cable net closure and construction of two bat and owl compatible cupolas at two shafts. It is anticipated that work on this project will be completed prior to December 1, 2002.

2002 MAINTENANCE PROJECTS :

Project maintenance was not a topic selected for evaluation this year, however, some maintenance work was accomplished at the following site.

Socorro West :

Three previously constructed bat compatible closures were modified to reduce damage to the structures from vandalism activity.

Principle No. 2 - Monitor the post-construction results of bat closures.

Academia has demonstrated that the closure of underground mines under the Surface Mining Control and Reclamation Act of 1977 has adversely affected bat populations throughout the Nation. In an attempt to reverse this trend various groups and regulatory authorities have joined together to study the problem and develop strategies to preserve bat habitat and sustain or promote bat populations. The New Mexico AML Program is an active participant in the nationwide effort to consider bat populations and bat habitat in its AML reclamation work.

Over the last several years, New Mexico AML has designed and installed numerous bat compatible mine closures. Prior to installing these closures, some preliminary information on bat populations using the mine workings was collected such as species and rough population estimates. The New Mexico AML Program has cooperated with the University of New Mexico and Bat Conservation International to assess, in greater detail, the species, population and health of bats residing in these workings. That study determined that most bat habitat reclaimed by the AML Program in New Mexico provided suitable habitat for bat populations to continue to use the sites. Thus, the implementation of bat grates by the AML Program is proving to be successful.

The study is being conducted by Bat Conservation International through the cooperation of Rick Sherwin(Graduate Student) and the University of New Mexico is being conducted to evaluate population dynamics of the bats in several states, including New Mexico. In addition, these factors are being monitored post construction, in order to assess the degree of success that the bat compatible closures are having.

The State realizes that bat habitat is in constant flux and bats are being displaced. The goals of the effort are to preserve known habitat, to evaluate the effectiveness of current bat compatible closure methods, and to create new habitat in suitable areas where current use is minor due to human visitation, etc. New Mexico has been extremely active in the nationwide effort to standardize bat closure designs and to implement bat compatible closures. New Mexico is commended for its efforts to date and for participating with Bat Conservation International.

New Mexico is one of the pioneers in the national effort to protect bat populations. This is a voluntary effort on the part of the State of New Mexico. Review of this principle found that New Mexico AML is fully successful in its bat conservation efforts. New Mexico AML's bat compatible closures designs have proven to protect good habitat conditions including access and proper air flow. In addition, the closures appear to be functioning to preserve known bat

populations while safeguarding the hazard to the public. Efforts to create new bat habitat in suitable areas which previously exhibited only minor use (the hypothesis is that the use of bat-compatible closures to keep people out may serve to enhance the suitability of previously marginal habitat.) is still under study.

Principle No. 3 - (Directive AML-22, Principle 4)

Programs should have systems in place to ensure accountability and responsibility for spending AML fund expenditures and a process to assure that such systems are working.

This principle is reviewed annually but is slightly modified each year to look at a different aspect of grants and accounting. New Mexico AML must comply with the OSM Federal Assistance Manual and Federal Regulations for the Grants Common Rule. New Mexico AML must comply with State policies and procedures on financial/fiscal accountability.

This year, AFO reviewed interim and final financial status reports and grant applications submitted to OSM by email (electronically submitted). The last time that OSM reviewed this evaluation topic was in FY-1998, prior to the Electronic-Grants (E-Grants) initiative. This year, the review was intended to determine if the electronic submission of grant applications is working.

New Mexico has begun to send grant documents to AFO by email. The AFO Grants Specialist reviewed interim and final Financial Status Reports (FSR'S) submitted by the New Mexico Mining and Minerals Division, continuously throughout the 2002 evaluation period, October 1, 2001 – September 30, 2002. The FSR's were accurate and submitted within the time-frames required by OSM's Federal Assistance Manual (FAM). New Mexico Mining and Minerals Division is in full compliance with Federal and State policies and procedures for financial reporting on OSM's Federally-funded grant assistance programs, both AML and Administration and Enforcement programs. The reports were submitted by e-mail and in hard copy.

The New Mexico Mining and Minerals Division continued to submit grant applications using e-mail during the 2002 evaluation period. The process is working well, and no deficiencies were noted during the evaluation period. New Mexico is in full compliance with the E-Grants process initiated by OSM.

In addition, the property inventory was reviewed last year and last year's annual report indicated that a follow-up would be conducted during EY-2002. The review included OSM grant-purchased property for both Regulatory and Abandoned Mine Land Programs. OSM Form 60 (separate form for each program), was used as a basis for verifying the type of equipment being reviewed, including manufacturer, year manufactured, model number(s) and serial number(s).

Equipment was reviewed at the New Mexico New Mexico AML Office at 1220 South Saint Francis Drive in Santa Fe, New Mexico. The 2002 review revealed no discrepancies. Information on the OSM Form 60's was found to be current and accurate. OSM will continue to monitor this area of the New Mexico AML Program as a routine responsibility of OSM's grants management function.

PART IV. AML INVENTORY STATUS

Because very little surface coal mining occurred in the State prior to SMCRA, most reclamation work involves the reclamation of underground mine hazards. Although the acreage associated with underground mining is small relative to surface mining, the numbers of hazards encountered are high and the danger associated with these hazards is extreme. The New Mexico AML Program often refers to abatement of hazards such as mine openings and shafts and the removal of hazardous structures and facilities as safeguarding of the site. Reclamation performed by the AML program has predominately returned the land to its premining land use of grazing; incorporated other post-reclamation land uses, such as wildlife enhancement, into its designs; and has effectively eliminated dangers to public health and safety.

The AMLIS database contains an inventory of priority 1, 2, and 3 hazards associated with abandoned coal mines and a list of non-coal abandoned mines that have been funded (or completed). The following tables show AMLIS accomplishments for EY-2002 and cumulative accomplishments to date.

Table 1
New Mexico AML Reclamation Program
EY-2002 Accomplishments *

Problem Type and Description	Completed EY-2002**	Costs
Benchs	0.0 acres	\$ 0.00
Clogged Stream Lands	0.0 miles	\$ 0.00
Dangerous Highwalls	0 feet	\$ 0.00
Dangerous Impoundments	0 (count)	\$ 0.00
Dangerous Piles & Embankments	0 acres	\$ 0.00
Dangerous Slides	0 acres	\$ 0.00
EF-Equipment/Facilities	0 (count)	\$ 0.00
Gobs	8.0 acres	\$ 670,000.00
Highwalls	0 feet	\$ 0.00
Hazardous Equipment & Facilities	0 (count)	\$ 0.00
Haul Roads	0.0 acres	\$ 0.00
Industrial/Residential Waste	0 acres	\$ 0.00
Mine Openings	0 (count)	\$ 0.00
Other	0 (count)	\$ 0.00
Portals	30 (count)	\$ 137,543.00
Pits	0.0 acres	\$ 0.00
Polluted Water: Agric. & Indust.	0 (count)	\$ 0.00
Subsidence	0.0 acres	\$ 0.00
Spoil Areas	205 acres	\$ 22,000.00
Surface Burning	0.0 acres	\$ 0.00
Slurry	0.0 acres	\$ 0.00
Underground Mine Fires	0.0 acres	\$ 0.00
Vertical Openings	136 (count)	\$ 297,457.00
Water Problems	0 (count)	\$ 0.00
NEW MEXICO TOTAL COSTS		\$ 1,127,000.00

* This table is based on a Problem Type Unit and Cost Detail Report from the Abandoned Mine Land Inventory System. Neither AMLIS nor this table contains an inventory of un-reclaimed non-coal hazards.

Table 2
New Mexico Abandoned Mine Reclamation Program
Cumulative AML Reclamation Accomplishments YTD

Problem Type and Description	Completed to Date**	Costs
Benches	3.0 acres	\$ 7,301.00
Clogged Stream Lands	0.5 miles	\$ 2,500.00
Dangerous Highwalls	0 feet	\$ 0.00
Dangerous Impoundments	0 (count)	\$ 0.00
Dangerous Piles & Embankments	8.5 acres	\$ 350,000.00
Dangerous Slides	0 acres	\$ 0.00
EF-Equipment/Facilities	12 (count)	\$ 13,635.00
Gasses: Hazardous / Explosive	0 (count)	\$ 56,563.00
Gobs	68.0 acres	\$ 2,120,148.00
Highwalls	0 feet	\$ 0.00
Hazardous Equipment & Facilities	17 (count)	\$ 119,467.00
Haul Roads	6.0 acres	\$ 2,300.00
Hazardous Water Bodies	0.0 acres	\$ 0.00
Industrial/Residential Waste	0 acres	\$ 0.00
Mine Openings	4 (count)	\$ 7,140.00
Other	0 (count)	\$ 0.00
Portals	463 (count)	\$ 1,892,532.00
Pits	2.0 acres	\$ 3,890.00
Polluted Water: Agric. & Indust.	4 (count)	\$ 13,400.00
Polluted Water: Human Consumption	1 (count)	\$ 1,728.00
Subsidence	36.6 acres	\$ 4,617,644.00
Spoil Areas	207.0 acres	\$ 24,301.00
Surface Burning	35.0 acres	\$ 760,406.00
Slurrv	2.0 acres	\$ 1.00
Underground Mine Fires	168.0 acres	\$ 234,983.00
Vertical Openings	640 (count)	\$ 2,419,794.00
Water Problems	0 (gal./min.)	\$ 0.00
NEW MEXICO TOTAL COSTS		\$ 12,648,534.00

Although not all non-coal hazards in New Mexico are inventoried in AMLIS, preliminary estimates show that at least 2,000 additional un-reclaimed portals and 14,000 vertical openings exist which are associated with non-coal that require safeguarding (hazard abatement / reclamation).

PART V. Summary and Recommendations:

OSM's review did not raise any major concerns with regard to New Mexico AML Program efficiency. OSM considers the New Mexico AML Program to be an exemplary Program. OSM views the New Mexico AML Program as a State partner in meeting mutual environmental goals and challenges. The Program has always been willing to provide assistance to other State and Tribal Programs and has established a cooperative, productive relationship with OSM. OSM considers it a pleasure to work with and oversee this AML Program.

The New Mexico AML Program makes cost-effective use of its AML funds while achieving quality reclamation. Construction work accomplished by the New Mexico AML Program is done under contract through competitive open bid, wherein all bids are publicly opened and contracts are awarded to the low-bidder. Both open competition and sound project designs ensure that all reclamation work is cost-effective.

Field oversight inspections have confirmed that effective monitoring of contractors by New Mexico AML ensures that all reclamation work is of high quality, timely, and consistent with contract specifications. Reclaimed sites require little maintenance, with the exception of repairing infrequent damage due to vandalism. OSM determined that New Mexico's overall use of AML funds during this evaluation period is consistent with the priorities established under SMCRA.

New Mexico is to be commended for its partnership activities with other State and Tribal AML Programs in the southwest. New Mexico has excelled in its initiative to protect bat populations by its innovative design closures. In addition, the State had done an excellent job of following through with studies to assess the impact and success of their projects in protecting bat populations. OSM commends the New Mexico AML Program for their outstanding voluntary efforts to conscientiously incorporate provisions for food and habitat into their reclamation designs that serve to promote, protect, and enhance native wildlife. This review determined that the New Mexico AML Program approaches its reclamation work within the context of enhancing the total ecosystem of the surrounding area.