

OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

**Annual Evaluation Summary Report
For the**

North Dakota Public Service Commission

Abandoned Mine Land Reclamation Program



Evaluation Year 2016

**Produced by the Denver Field Division
Casper Area Office**

EXECUTIVE SUMMARY

The following is a summary of the Evaluation Year (EY) 2016 Oversight Report for the North Dakota Abandoned Mine Lands (AML) Program. This report covers the period of July 1, 2015 to June 30, 2016.

OSMRE has completed its evaluation of topics specified in the Performance Agreement between the North Dakota AML Division and the OSMRE. Assessment of the state's performance for the 2016 evaluation year includes reviews of selected topics, including: 1) Overall Reclamation Success, 2) AML Emergency Investigations and Abatement Efforts, 3) AML Grant Fiscal and Administrative Controls, 4) AMLIS, and 5) Public Outreach.

Site visits were jointly conducted by the OSMRE and state personnel at various AML reclamation project sites to help assess overall reclamation success. It was agreed that all projects met their goals, abatement and reclamation measures were deemed intact and functional, and no problems compromising those measures were apparent.

The North Dakota AML program received \$2,796,000 in grant funding during EY2016. This includes administrative and construction sub-grants that fund 4.5 Full Time Employees (FTEs) and is intended to fund, in whole or in part, three projects that are considered construction ready. A total of three projects were completed during EY2016.

Completion information entered into AMLIS for the total number of projects completed during the evaluation year was analyzed and compared to the information North Dakota AML entered into AMLIS for completed projects agrees with the information in its files.

The NDPSC encourages public participation and outreach through public meetings, public service announcements, press contacts, project meetings, the NDPSC website, and by responding to public inquiries.

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Cover Page Photograph: Photo showing the 2015 Scranton/Bowman Phase 3 (Bowman Site).

I. GENERAL

A. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSMRE) in the Department of the Interior. SMCRA provides authority to OSMRE to oversee the implementation of and provide federal funding for the state abandoned mine land programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. In addition to conducting oversight of approved state programs, OSMRE provides technical assistance, staff training, financial grants and assistance, as well as management assistance to each state program. This report contains summary information regarding the North Dakota AML Program and the effectiveness of the program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the 2016 Evaluation Year (EY) July 1, 2015 to June 30, 2016.

On December 23, 1981, the Secretary of the Department of Interior approved North Dakota's Abandoned Mine Land Reclamation (AMLR) Plan under Title IV of SMCRA. With that approval, the State of North Dakota through the North Dakota Public Service Commission (NDPSC) has exclusive responsibility and authority to operate and administer the Abandoned Mine Reclamation Program.

The OSMRE's evaluation methods are based upon OSMRE Directive AML-22 (Evaluation of State and Tribal Abandoned Mine Lands Programs) and a Performance Agreement (PA) between the NDPSC and the OSMRE. The PA establishes a commitment between the NDPSC and the OSMRE to identify topics for review, methodologies for enhancement and evaluation of performance reviews, and assistance in the preparation of the final report. Assessment of the NDPSCs performance includes reviews of selected topics such as fiscal and administrative controls, progress in coal mine reclamation, overall reclamation success, public interaction and outreach, and integration with the OSMRE Abandoned Mine Land Inventory System (AMLIS) database. Reclamation site visits were conducted jointly by NDPSC project managers and OSMRE staff.

Detailed background information and comprehensive reports for the program elements evaluated during the EY are available for review and copying at the OSMRE, Denver Field Division (DFD), Casper Area Office (CAO), 150 East B St., Room 1018, Casper, WY 82602. To arrange an appointment time, contact Jeff Fleischman via telephone (307) 261-6550 or email jfleischman@osmre.gov.

The reports are also available at the OSMRE Oversight Documents website at <http://odocs.osmre.gov/>. Adobe Acrobat Reader® is needed to view these documents. Acrobat Reader® is free and can be downloaded at <http://get.adobe.com/reader/>.

Follow these steps to gain access to the document of interest:

1. Select North Dakota from the drop down box labeled “State”. Also select 2015 as the “Evaluation Year”, and then click “Submit”. The search can be narrowed by choosing selections under the “Keyword” or “Category” headings.
2. The oversight documents and reports matching the selected state and evaluation year will appear at the bottom of the page.
3. Select “View” for the document that is of interest and the report will appear for viewing, saving, and/or printing.

The following acronyms are used in this report:

AML	Abandoned Mine Land
AML-1	OSMRE Directive AML-1
AML-22	OSMRE Directive AML-22
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
AMLD	Abandoned Mine Land Division
ATP	Authorization to Proceed
CAO	OSMRE’s Casper Area Office
CE	Categorical Exclusion
DFD	OSMRE’s Denver Field Division
EA	Environmental Assessment
EIS	Environmental Impact Statement
EY	Evaluation Year
FAM	OSMRE’s Federal Assistance Manual
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
GPS	Global Positioning System
NDCC	North Dakota Century Code (Law)
NDAC	North Dakota Administrative Code (Rules)
NDPSC	North Dakota Public Service Commission
NEPA	National Environmental Protection Act
NTTP	National Technical Training Program
OSMRE	Office of Surface Mining Reclamation and Enforcement
PAD	Problem Area Definition
SMCRA	Surface Mining Control and Reclamation Act of 1977
SPGM	Suitable Plant Growth Material
TIPS	Technical Innovation and Professional Services
WR	OSMRE Western Region

B. Program Administration

The North Dakota AMLR program continues to operate under the guidelines of SMCRA, the approved State Reclamation Plan, the Federal Assistance Manual, and associated rules, regulations and policy decisions. The State administers an excellent AMLR program in full compliance with their approved AMLR Plan.

The Casper Area Office (CAO) continues to enjoy an excellent working relationship with the staff of the North Dakota AMLD. Their personnel are experienced, knowledgeable, and dedicated to the goals of the program. The AMLD also maintains a good relationship with other State and Federal agencies that must be contacted during the course of preparing projects for reclamation. The North Dakota AMLD maintains a program staff of 4.5 full time employees.

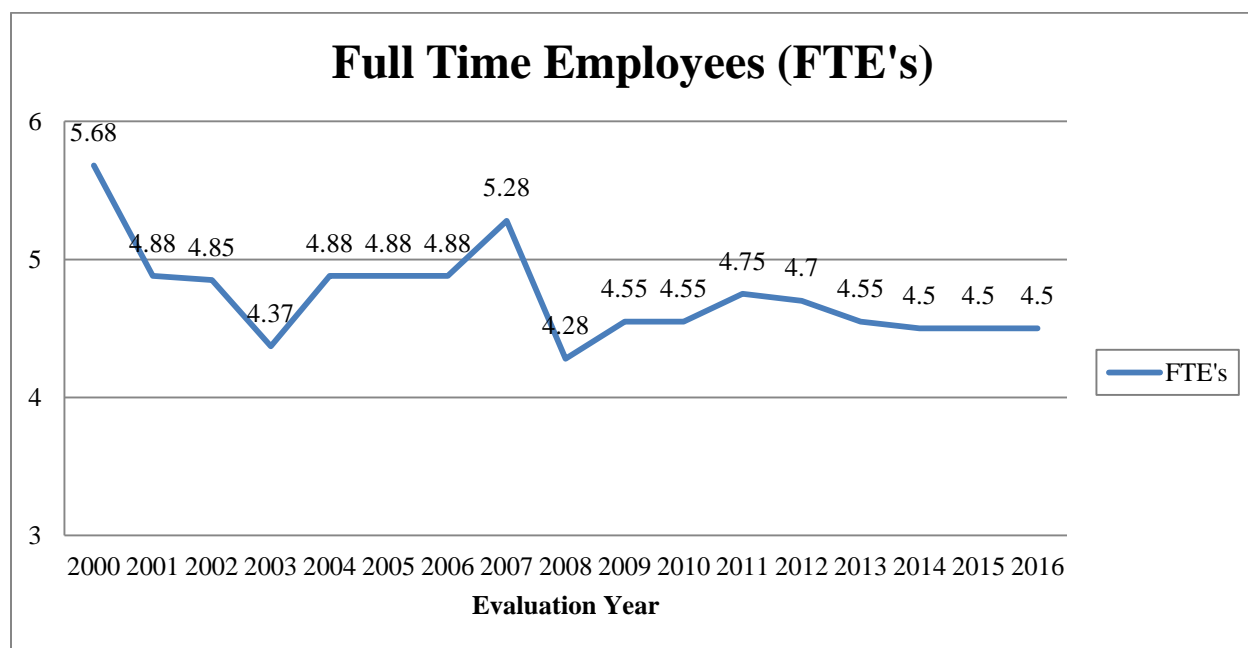


Figure 1: Number of Full Time Employees

The North Dakota AMLD initiates reclamation activities each spring as soon as weather conditions allow. Many rural sites are accessible only by dirt and gravel roads, which must be allowed to dry sufficiently before heavy equipment can travel on them. Work may start as much as two months earlier on sites located near paved roads, and then continues until halted by the severe weather conditions usually encountered in North Dakota during the winter. However, this is generally the time of the year when future projects are designed, and coordination necessary to get projects ready for the next construction season takes place. All of the reclamation completed in North Dakota to date has been on abandoned coal mines, and no non-coal work is planned.

Prior to initiating any construction work, the AMLD submits a documentation package to the OSMRE with a request for an Authorization to Proceed (ATP). This package includes 1) a complete Environmental Assessment or Categorical Exclusion, 2) a project eligibility determination pursuant to 30 CFR 874.12 prepared by the Director of the North Dakota

Reclamation and AML Divisions, 3) final determination from consultation with the U.S. Fish and Wildlife Service and the North Dakota Parks and Recreation Department regarding threatened and endangered species, 4) final determination from consultation with the State Historic Preservation Office, 5) final determination from consultation with the North Dakota Department of Health regarding the effects on surface and groundwater resources, 6) site maps and photographs, and 7) AMLIS Problem Areas Description (PAD) reports. If acceptable and complete, the CAO issues a Finding of No Significant Impact (FONSI) and an Authorization to Proceed (ATP) pursuant to section 4-160-50D.3 of the FAM to the AMLD prior to reclamation or construction of each project.

II. NOTEWORTHY ACCOMPLISHMENTS

The NDPSC continues to administer an efficient and successful AML program as set forth in Section 102 of SMCRA. Since the Program's inception, the North Dakota AMLD has conducted over 158 primary reclamation projects, 31 emergency projects and numerous construction maintenance and sinkhole filling projects, at a total cost of over \$50 million of federal funds. Almost 27 miles of dangerous surface mine pits and highwalls, and over 1,600 acres of underground mine subsidence have been reclaimed (source e-AMLIS database). These projects have reduced the likelihood of death or injury to property owners and the public.

III. UTILIZATION OF OSMRE TECHNOLOGICAL ASSISTANCE

The OSMRE provides technical assistance and technology support to state AML Programs at the individual state level on project specific efforts, and at the national level in the form of national meetings, forums, and national initiatives. The OSMRE provides direct technical assistance in project and problem investigation, design and analysis, permitting assistance, developing technical guidelines, training and support. The OSMRE initiated a regional Technology Transfer Team in 2004 to support and enhance the technical skills needed to operate regulatory and reclamation programs, for which each state, including North Dakota, has a representative. 6.

A. National Technical Training Program (NTTP)

The assistant director of the AML Division co-instructed NTTP's AML Drilling and Grouting course in March 2016. AML's environmental scientist also participated in this session since she will become a co-instructor for this course next year in place of AML's assistant director. An environmental scientist co-instructed NTTP's Soils and Revegetation course in May 2016. The GIS specialist attended the March 2016 Drilling and Grouting course as a student. An environmental scientist attended NTTP's Wetlands course in June 2016.

B. Technical Innovation and Professional Services (TIPS)

During the evaluation year, no AML staff from the NDPSC attended any TIPS training courses. The OSMRE's library services did not receive any requests from the NDPSC for references or article reprint.

IV. PUBLIC PARTICIPATION AND OUTREACH

A. OSMRE

The OSMRE-DFD provides for transparency in the oversight process by conducting outreach to stakeholders and encouraging public participation throughout the OSMRE-DFD's annual oversight activities. The public can find oversight guidance documents and North Dakota's Performance Agreement relating to the OSMRE's oversight of North Dakota's program on the following OSMRE website: <http://odocs.osmre.gov/>.

Each evaluation year, the OSMRE-DFD solicits input from the public and interested parties to comment on oversight and provide suggestions for potential oversight evaluation topics. Sharing of information with the public is highly encouraged by both the OSMRE and the State. The public may include a variety of stakeholders, including, but not limited to; citizenry at large, other Federal, State, or Local agencies, or environmental groups. An email soliciting public comments and suggestions on the oversight process for the 2016 evaluation year was sent to a list of interested parties on March 2, 2015. To date, OSMRE Casper Area Office has received no comments or suggestions for oversight activities for either the 2016 or 2017 evaluation years.

To be included in future solicitations, please contact OSMRE's Denver Field Division (DFD), Casper Area Office (CAO), at: 150 East B St., Room 1018, Casper, WY 82602. Suggestions or comments may be sent to Jeff Fleischman, DFD Chief, via telephone (307) 261-6550 or email jfleischman@osmre.gov.

B. North Dakota

The North Dakota Public Service Commission (NDPSC) is the State agency charged with the responsibility for the permitting and regulation of the coal mining industry and reclamation of abandoned mine lands in North Dakota. North Dakota continues to solicit public comment and input on individual AML projects and the AML program at large. North Dakota publishes notices for each proposed major reclamation project in local and state newspapers and on its website, and solicits public comment and requests for public meeting participation. The AML Section has also published a brochure about AML Subsidence and routinely sends project completion reports to landowners and other interested parties.

The NDPSC maintains a web site at: <http://www.psc.nd.gov/> that includes links to information on current and past AML projects, current construction bidding, project selection, department contacts, state laws and rules, consumer information, and professional procurement information.

The NDPSC encourages public participation through public meetings, public service announcements, press contacts, project meetings, and by responding to public inquiries. The NDPSC commonly hosts, or participates in a variety of public meetings, conferences, and workshops.

Public meetings conducted by NDPSC involving projects completed during EY2016 include:

- Jan. 15th, 2015: Public meeting held at the Wilton City Auditor's Office to discuss AML projects.
- Jan. 27th, 2015: Public meeting held at the Bowman City Hall to discuss AML projects.

- Apr. 13th, 2015: Contractor Pre-Bid Site Meetings held at the 2015 Columbus Phase 15 sites.
- Apr. 15th, 2015: Contractor Pre-Bid Site Meetings held at Wilton, Reeder, Scranton and Bowman.
- Apr. 23rd, 2015: Public bid opening held at the NDPSC Hearing room, at the State Capitol Building in Bismarck.

During EY2016, a Contractor Pre-Bid Site Meeting was held in Wilton on March 28, 2016 and the Public Bid Opening was held on April 7, 2016.

OSMRE's programmatic reviews of the North Dakota program indicate that the NDPSC is adhering to the State's policies and procedures regarding opportunities for public participation in all phases of their reclamation program.

V. RESULTS OF EVALUATION YEAR 2016 REVIEWS

OSMRE Directive AML-22 Evaluation of State/Tribe AML Programs dictates that OSMRE oversight of State AML programs will include a short description of all program elements reviewed during the evaluation year. These topic-specific reviews are identified and agreed to by both the State and the OSMRE in the most recent performance agreement. For the 2015 evaluation year, both parties have agreed that the OSMRE will conduct topic-specific reviews of: 1) Overall Reclamation Success, 2) AML Emergency Investigations and Abatement Efforts, 3) AML Grant Fiscal and Administrative Controls, 4) AMLIS, and 5) Public Outreach. However, since Public Outreach is already addressed in section IV of this report, a topic-specific review of Public Outreach will not be included in this section.

The North Dakota AML Performance Agreement (PA) for EY2016 was signed on July 22, 2015. The PA describes the team's purpose and the topics selected for review to evaluate the performance of the AML program. On-the-ground, performance-based results were the principal focus of program evaluation and documentation.

Results of the EY2016 evaluations are summarized below. The evaluations included field visits to AML projects, interviews with NDPSC-AMLD staff, and reviews of the AMLR Program's project specifications, grant applications and reports, and internal State and AMLIS inventories.

A. Overall Reclamation Success

Our EY2016 evaluation of overall reclamation success determined if the NDPSC-AMLD's reclamation met project goals. We compared NDPSC-AMLD's reclamation to project specifications, results of interagency consultation, and other information. Our evaluation focused on determining whether reclamation met project goals by implementing the scope of work to abate original hazards, complying with conditions (if any) resulting from interagency consultation, and improving overall site conditions compared to pre-reclamation conditions. Generally, we agreed that projects met their goals if abatement and reclamation measures are intact and functional, and no problems compromising those measures were apparent. We consider site conditions improved overall if hazards to public health and safety are abated and

associated reclamation reduced environmental problems such as erosion and sedimentation while promoting re-vegetation.

We concluded that the projects we visited met their respective goals. NDPSC-AMLD met the goals of abating hazards and improving site conditions at all projects conducted during EY2016. Highwalls associated with abandoned surface coal mines were properly eliminated and the re-graded areas were re-vegetated. Underground mine voids were backfilled remotely with injection of pressurized grout through drilled injection holes to eliminate the threat of subsidence. The injection holes were properly reclaimed. Sinkholes associated with underground mine voids were properly eliminated and the backfilled areas were re-vegetated.

A total of three non-emergency AMLD projects were completed during EY2016. No emergency AMLD projects were completed during EY2016.

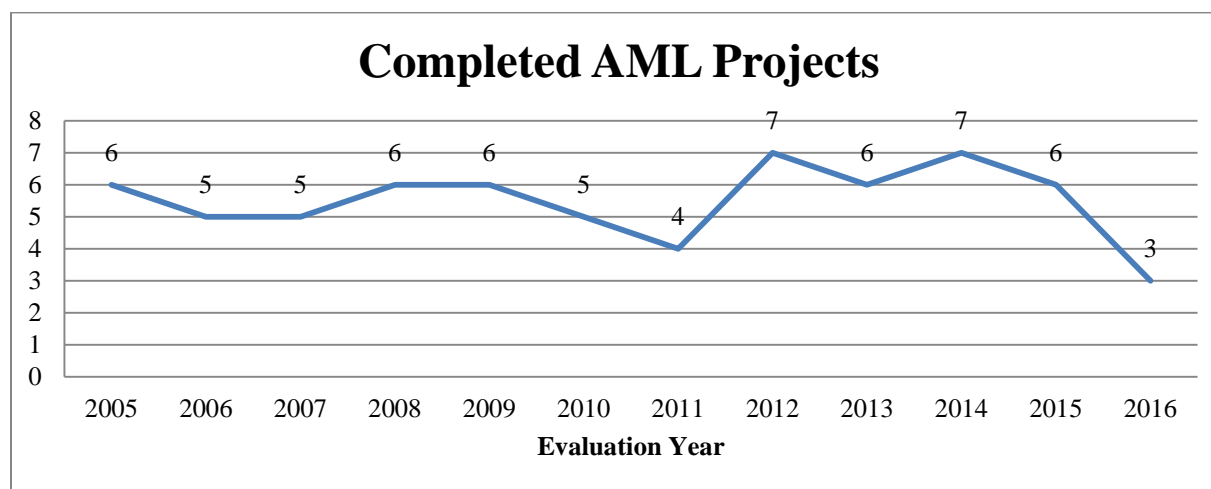


Figure 2: Number of Completed AML Projects

OSMRE conducted on-site oversight visits of select AML projects on March 28th and 31st, 2016. The sites visited include: 2015 Columbus Phase 15 Project, the 2015 Scranton/Bowman Phase 3 and Wilton Phase 1 Projects, and select sites from the 2015 Sinkhole Filling Project.

The following is a summary of major non-emergency AMLD Projects completed during EY2016:

2015 Columbus Phase 15 Project

Begin Date: 7/11/2015

End Date: 9/9/2015

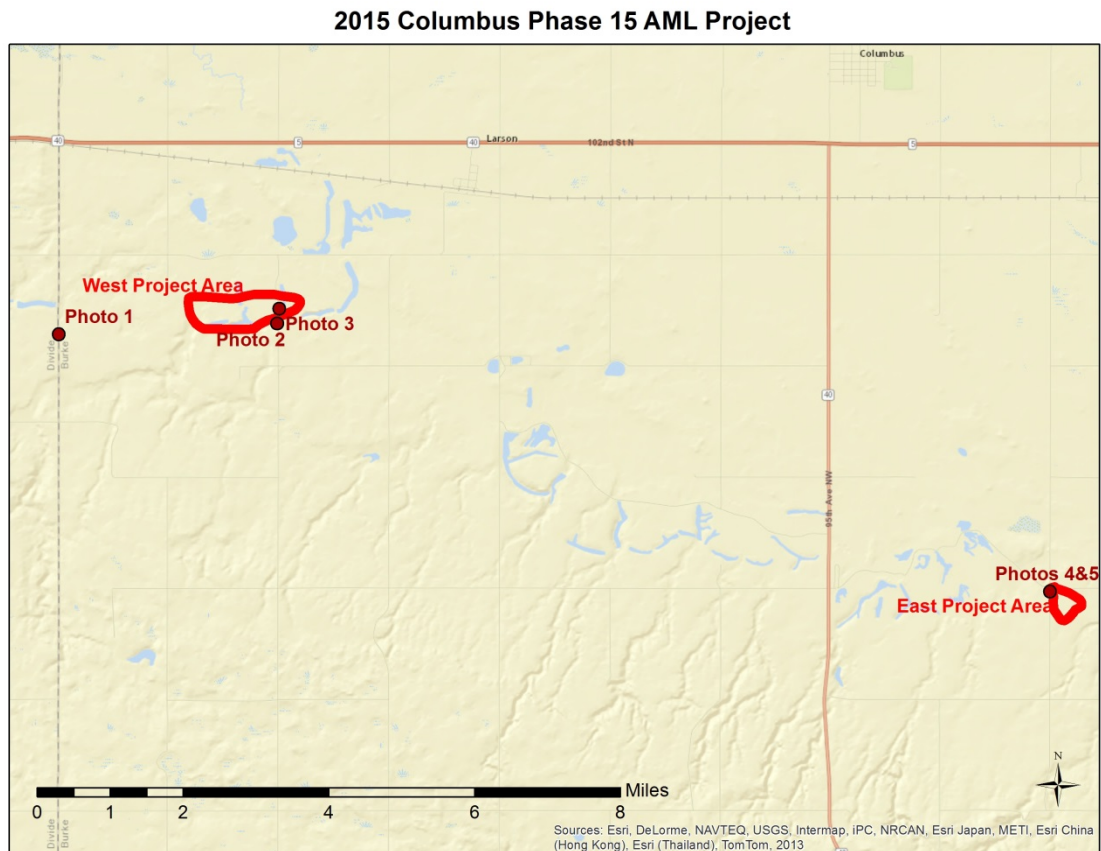
AMLIS Keys: ND031

Contract Cost: \$477,125.09

ATP& FONSI issued: Jan. 29, 2015

e-AMLIS Closeout: 11/10/2015

Overall Success: This project involved the elimination of nearly 5,000 feet of highwalls at two abandoned surface mines in Burke County. About 255,000 cubic yards of spoil material was used to backfill the highwalls and about 65 acres were reclaimed at two sites. These sites will be referred to as the West and East Project Areas. This is the 15th phase of this project, with the first phase beginning in June of 1988. An EIS (OSM-EIS-11) was prepared in November of 1983 to address environmental concerns of this project. An Environmental Assessment for this phase of the project was updated in January of 2015. Earthwork for the Columbus Phase 15 AML Project started on July 11, 2015, and was completed August 21, 2015. Seeding operations and straw wattles placement were completed on September 9, 2015. The contracted work was completed for a total cost of \$477,125.09. The completion data for this phase of the project was entered into AMLIS on November 10, 2015.



Topsoil was salvaged and resaved for respread on the Columbus Project Site. Windblown topsoil had accumulated in the ditches along the Burke/Divide County line road, between Sections 12 & 13 and 7 & 8 of T162N, R94W to the point that flow was being impeded, and they needed to be cut deeper. NDPSC worked out a deal with the County so that the contractor would cut the ditches and then utilized the topsoil for reclamation at the Columbus site. The ditches were then reseeded.



Photo 1: Topsoil borrow area for Columbus Phase 15 Project.

2015 Columbus Phase 15 Project (West Site)

At the West Project Area, spoil piles were backsloped and leveled. Topsoil from County ditches was incorporated into the topmost spoil and reseeded, and wattles were used to help control erosion. The landowner asked that some spoil ridges be topped in the hope of increasing the amount of grazing land. The spoils are sodic and the former pit area is being left as a water resource.



Photo 2: Newly seeded & sloped highwall (far bank) and developed water resource.



Photo 3: Topped spoil ridges.

2015 Columbus Phase 15 Project (East Site)

The eastern portion of this project involved the backsloping of approximately 1,600 ft of highwall, utilizing over 3,500 cubic yards of backfill. The highwall was backsloped, spread with a mix of topsoil and spoil, and seeded. A wetland was developed utilizing a portion of the former pit. At the time of the OSMRE site inspection, on March 31st, 2016, the area was freshly seeded and erosion was being controlled with wattles.



Photo 4: Developed wetland.



Photo 5: Former highwall.

2015 Scranton/Bowman Phase 3 and Wilton Project

The 2015 Scranton/Bowman Phase 3 and Wilton Project was developed by NDAML as a large multi-site drilling and grouting project conducted at sites near the cities of Scranton, Bowman, Reeder and Wilton, North Dakota. Each site was listed separately, with separate PADs in the e-AMLIS database, and separate environmental assessments were conducted for each site. Although each of these four sites could have been documented as separate projects, for purposes of cost efficiency and efficiency, NDAML chose to address them all as a single AML project.

OSMRE's Authorization to Proceed (ATP) for the portions of this project located in Scranton, Bowman and Reeder, is based on the Environmental Assessment (EA) conducted for the Scranton/Bowman Phase 1 Project, conducted in 2013. Since the scope and location of the individual sites encompassed by this project remain unchanged through Phases 2 and 3, the ATP issued on February 3rd, 2013 remains valid. OSMRE issued a letter concurring with the existing ATP on January 26, 2015.

The location of the Wilton site was not addressed by the EA conducted for the 2013 Scranton/Bowman Phase 1 Project, so a separate assessment was required. An EA specific to this location was completed in January of 2015. The ATP for this portion of the project was issued on January 29, 2015.

Begin Date: 6/15/2015

End Date: 11/20/2015

AMLIS Keys: ND000528 (North Scranton), ND000003 (South Scranton), ND000140 (Reeder), and ND000033 (Bowman-Andrews Lake), ND000001 (Wilton)

Contract Cost: total cost = \$1,509,449

ND000528 (North Scranton) \$1527, ND000003 (South Scranton) \$16,560, ND000140 (Reeder) \$215,145, ND000033 (Bowman-Andrews Lake) \$813,019, ND000001 (Wilton) \$463,198

Concurrence letter issued for Scranton, Bowman and Reeder Sites: 01/26/2015

ATP issued for Scranton, Bowman and Reeder Sites: Feb. 3, 2013 (for Phase 1)

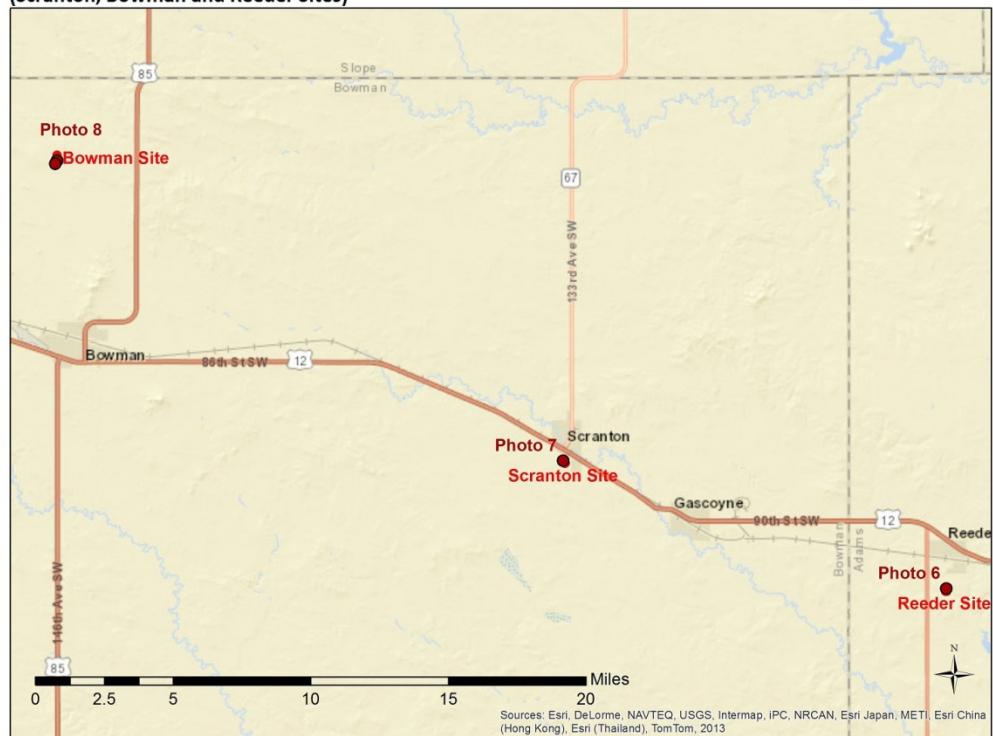
ATP and FONSI issued for Wilton Site: Jan. 29, 2015

e-AMLIS Closeout: January 12, 2016

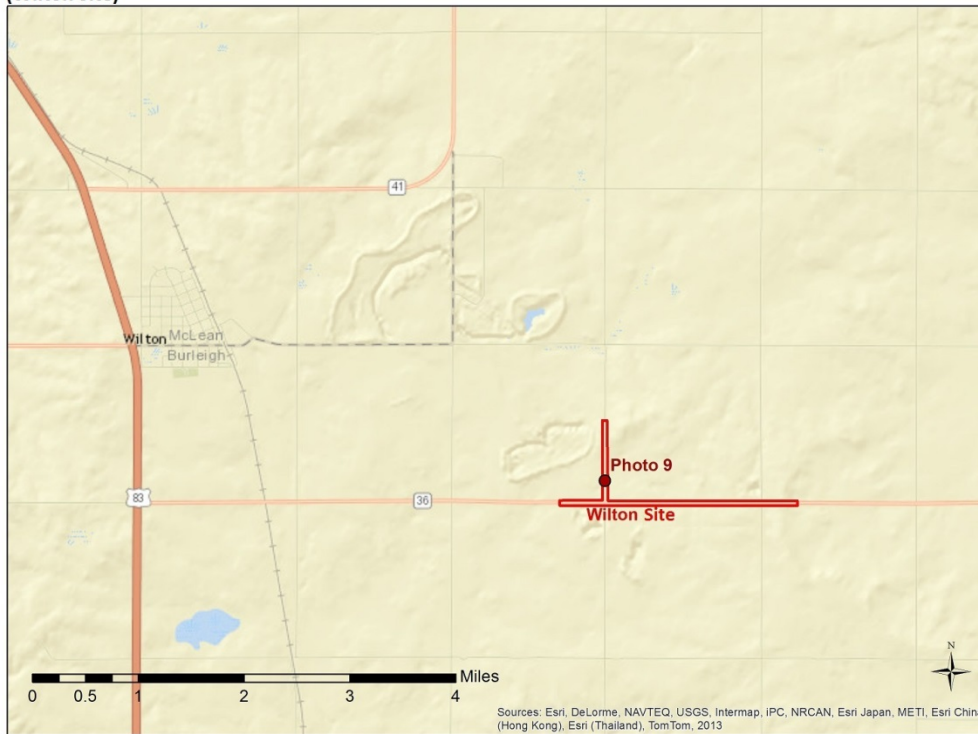
Overall Success: This project involved drilling and pumping pressurized grout into collapsed underground mine workings. Project areas included a farmstead near Reeder and roadways near Scranton, Bowman, and Wilton. The final totals were 24,291 feet of drilling, 3,409 feet of casing, and 7,940 cubic yards of grout. The amount of grout injected into mine voids at each site were 953 cubic yards near Reeder, 86 cubic yards at Scranton, 4,500 cubic yards north of Bowman, and 2,400 cubic yards at Wilton. There were two contracts for this project, one for construction and one for material testing and the combined contract costs were \$1,509,449. Completion data for each of the four PADs where work occurred were entered into e-AMLIS on January 12, 2016 with costs as follows: Reeder (ND01140) \$215,145, South Scranton (ND0003) \$16,560, North Scranton (ND0528) \$1527, and Bowman-Andrews Lake (ND0033) \$813,019, ND000001 (Wilton) \$463,198. Completion data was entered into e-AMLIS on January 12, 2016.

2015 Scranton/Bowman Phase 3 and Wilton Project

(Scranton, Bowman and Reeder Sites)



2015 Scranton/Bowman Phase 3 and Wilton Project (Wilton Site)



2015 Scranton/Bowman Phase 3 and Wilton Project (Reeder Site)



Photo 6: Reeder Site. Drilling, grouting and filling of a subsidence area.

This site involved a small family owned coal mine that was located immediately beneath a farm yard, near two homes and other buildings. Approximately 121 holes were drilled for this project. 36 cased holes were pumped with grout and surface subsidence features were filled. A borehole camera was used to help formulate the grouting plan.

2015 Scranton/Bowman Phase 3 and Wilton Project (Scranton Site)

This site is located along 133rd Ave. SW, just south of the intersection with County Road 12, south of Scranton. This part of the project is a continuation of reclamation work conducted over the past two field seasons. Grouting was completed to fill voids under the road.



Photo 7: Scranton Site. Properly filled borehole east of 133rd Ave. SW.

2015 Scranton/Bowman Phase 3 and Wilton Project (Bowman Site)

This site is located north of Bowman, west of the intersection of 146th Ave. SW and 146 1/2th Ave. SW. Drilling was conducted and pressurized grout was pumped into underground mine workings. Evidence of recent drilling and grouting activities was apparent at the site, including recent boreholes filled with bentonite. A high pressure gas line intersects the mine entry tunnel for the former underground mine at this site. Safety was a primary concern and care was taken to avoid drilling in the pipeline easement.



Photo 8: Bowman Site. Facing north, with 146th Ave. SW at right of photo.

2015 Scranton/Bowman Phase 3 and Wilton Project (Wilton Site)

The site is located along the section line road (41st Street) between Sections 5 and 6 of T142N, R79W and along Highway 36 at the intersection of 41st Street. This project involved drilling and pumping pressurized grout into collapsed underground mine workings. Research indicated an extensive history of underground mining and exploratory drilling located at least four haul tunnels transecting 41st Street.



Photo 9: Cased boreholes along 41st Street are marked with pink tassels.

2015 Sinkhole Filling Project

Begin Date: 6/24/2015

End Date: 12/4/2015

Contract Cost: \$77,224

AMLIS Keys: Beulah (ND0014) \$15,225, Richter (ND0112) \$4000, New Leipzig-Ruck (ND0026) \$4065, Scranton (ND0528) \$3130, Dickinson (Binek) \$11,329, and Wilton (ND0001) \$39,475.

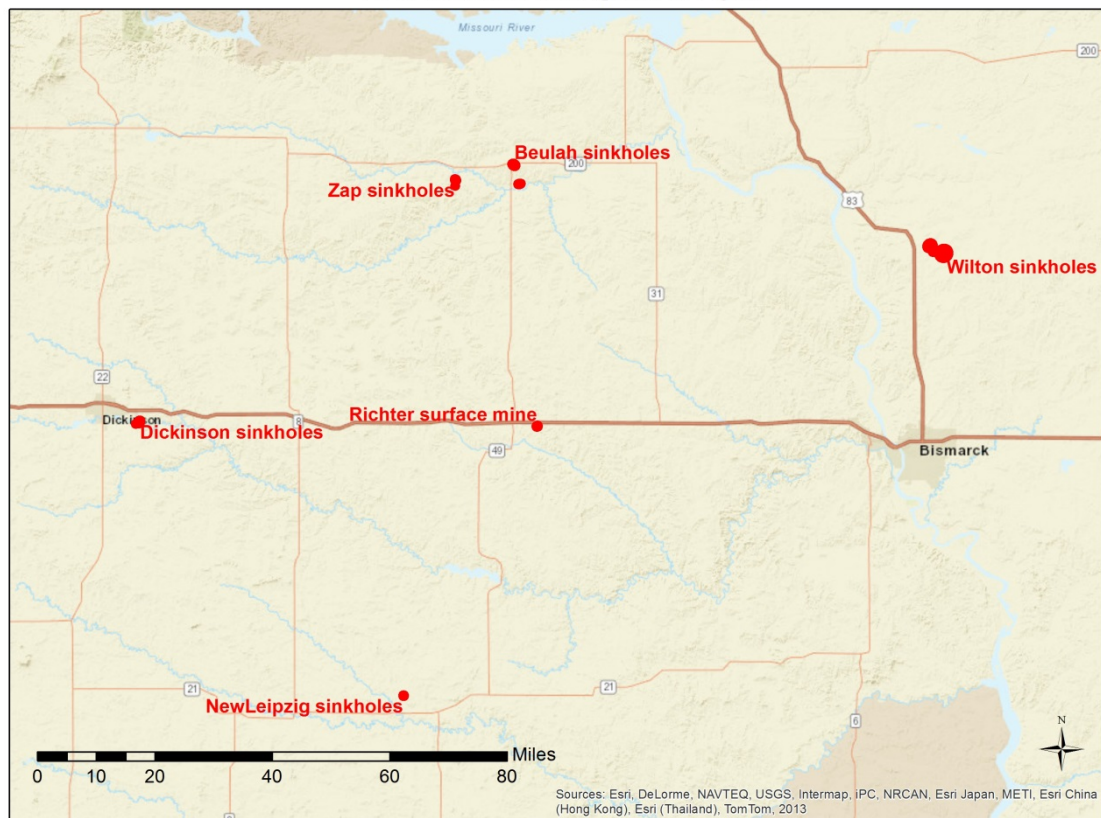
Concurrence letter issued: 01/26/2015

ATP and FONSI issued: 08/24/2011

Closeout: Jan. 28, 2016

Overall Success: This project is a continuation of sinkhole filling and maintenance work that has occurred most years, since inception of the NDAML Program. This project involved surface backfilling of dangerous sinkholes caused by subsidence of underground mines and respreading topsoil and seeding areas at a reclaimed surface mine (Richter). Locations for this work included fifteen properties near the cities of Beulah, Zap, Glen Ullin, New Leipzig, Scranton, Dickinson and Wilton North Dakota. Approximately 207 non-emergency sinkholes were filled at these sites, including topsoil respreading and seeding, and maintenance work. Work on this project during 2015 began June 24 and was completed December 4, 2015. The contract cost for this work was \$77,224. Work under this contract will continue in 2016. Completion data for each of the six PADs where work occurred was entered into e-AMLIS on January 28, 2016 with costs as follows: Beulah (ND0014) \$15,225, Richter (ND0112) \$4000, New Leipzig-Ruck (ND0026) \$4065, Scranton (ND0528) \$3130, Dickinson (Binek) \$11,329, and Wilton (ND0001) \$39,475.

2015 Sinkhole Filling AML Project



2015 Sinkhole Filling Project (Beulah Sinkholes)

Twenty six sinkholes were filled near Beulah and another 16 sinkholes were filled near Zap during the summer of 2015. All sinkholes were respread with topsoil, tilled and seeded with native grassland seed mix.

2015 Sinkhole Filling Project (Richter Site)

The Richter Site is an abandoned surface coal mine that was partially reclaimed in 2013. Maintenance work was conducted here to respread topsoil and other suitable material on eight barren spots. All areas were tilled and seeded to native grassland species.

2015 Sinkhole Filling Project (New Leipzig Sinkholes)

Sixteen sinkholes were filled near at the New Leipzig Site during the fall of 2015. Topsoil was saved and all reclaimed areas were respread with topsoil, tilled and seeded with native grassland seed mix.

2015 Sinkhole Filling Project (Scranton Sinkholes)

Six sinkholes were filled on three properties near Scranton during the early winter and fall of 2015. Topsoil was saved and all reclaimed areas were respread with topsoil, tilled and seeded with native grassland seed mix.

2015 Sinkhole Filling Project (Dickinson Sinkholes)

Twenty nine sinkholes were filled in late October of 2015. Several holes were very large and a haul truck dropped into one during reclamation efforts. Topsoil was saved and all reclaimed areas were respread with topsoil, tilled and seeded with native grassland seed mix.

2015 Sinkhole Filling Project (Wilton Sinkholes)

114 total sinkholes have been filled at the Wilton Sites, with 42 holes filled in Section 36 alone. Over 60 truckloads of fill material have been utilized for this portion of the project. Whenever possible, topsoil has been saved and respread prior to seeding.



Photo 10: A sinkhole at the Wilton Site in Section 36. This is the largest sinkhole reclaimed during EY2015.



Photo 11: Another filled sinkhole east of Wilton.

2016 Construction Maintenance Work

The following is a summary of construction ready projects. These are estimates of project areas for which information is available for preliminary project design.

Project Site	Estimated Project Cost
Wilton – Phase 2	\$1,500,000
Bowman (Fox Hole)	\$200,000
Sinkhole Filling & Construction Maintenance	\$100,000
TOTAL	\$1,800,000

Figure 3: Construction Ready Projects planned for 2016 (EY2017).

Wilton Phase 2: This project will be a continuation of work begun in 2015 drilling and pumping pressurized grout into collapsed underground mine workings. The sites are mainly under public roads southeast of Wilton, ND, in Burleigh County. This project will include rotary drilling, casing drill holes where voids are found, pumping of grout, and grout testing. It is estimated that 7,500 cubic yards of grout will be pumped into mine voids and about 20,000 feet of drilling will be needed in these areas. The estimated project cost is \$1,500,000.

Bowman (Fox Hole): This 10 acre project will eliminate about 1,100 feet of hazardous highwalls at abandoned surface mine sites located in Bowman and Slope Counties approximately six miles north of the city of Bowman, ND, in Bowman and Slope Counties. These AML sites are characterized by steep highwalls that are approximately 25 feet high. The proposed reclamation work involves backfilling the highwalls with earthen material from adjacent spoil piles. About 40,000 cubic yards of spoil material will need to be moved in the reclamation process. The estimated project cost is \$200,000.

Sinkhole Filling and Construction Maintenance: Some of the available construction funds, about \$100,000 will be used for a maintenance project to backfill hazardous sinkholes that have been caused by underground mines. These funds may also be used to repair erosion and conduct other maintenance on reclaimed surface mine sites. If necessary, some of these funds will be used for emergency projects.

B. AML Emergency Reclamation Success

No emergency AMLD Projects were conducted during EY2016.

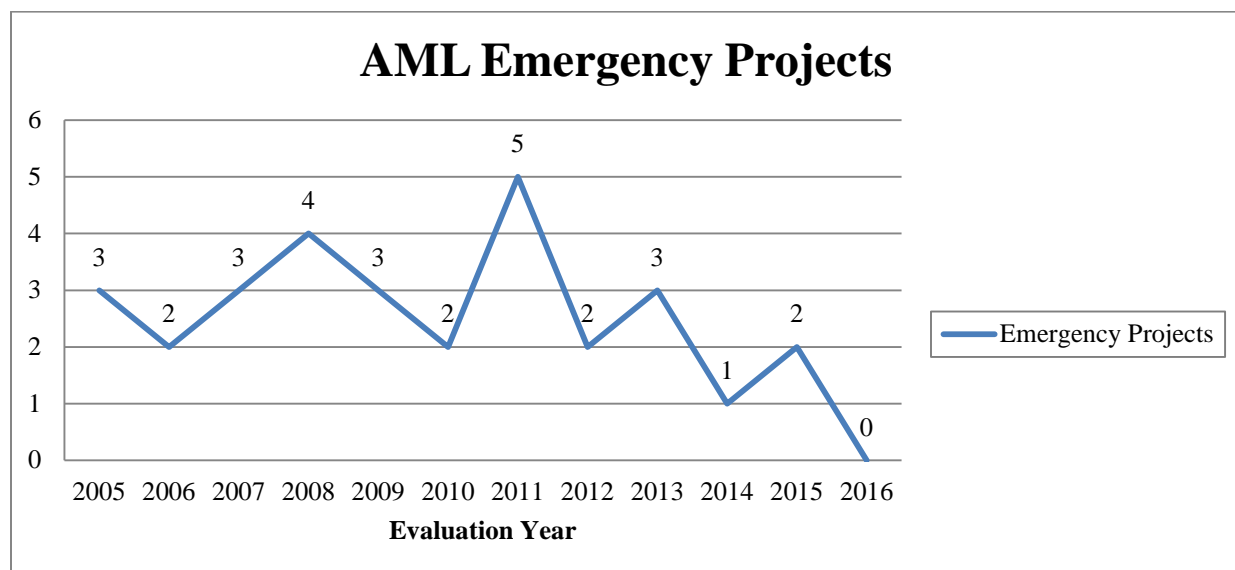


Figure 4: Number of AML Emergency Projects (2005-2016)

C. AML Grant Fiscal and Administrative Reviews

When OSMRE receives a grant application from the North Dakota AMLD, the OSMRE staff review the application package to determine compliance with programmatic requirements. This review ensures that the application meets the requirements set forth in the Federal Assistance Manual (FAM) Part 1-120-30B including the completion of forms SF-242 (Application for Federal Assistance), OSM-51 (or an equivalent program narrative), OSM-47 (or alternative format itemized budget), and Assurances Form SF-424D as appropriate. Prior to approval, the OSMRE must review the application to determine whether the State can accomplish the proposed goals in the manner and timeframe provided, and whether the State can manage the projects in compliance with federal laws and regulations. Section 1-150-30 of the FAM also prescribes how the OSMRE will monitor program performance.

The North Dakota AMLD was allocated \$2,781,000 dollars for their fiscal year 2015 grant period, beginning March 1, 2015. Grant No. GR507380 (S15AF20022) began on March 1, 2015 and is scheduled to end on February 28, 2018.

The North Dakota AMLD was allocated \$2,796,000 dollars for their fiscal year 2016 grant period, beginning March 1, 2016. Grant No. GR607380 (S16AF20020) began on March 1, 2016 and is scheduled to end on February 28, 2019. All projects conducted during the grant periods are anticipated to involve the reclamation of abandoned surface and underground coal mines.

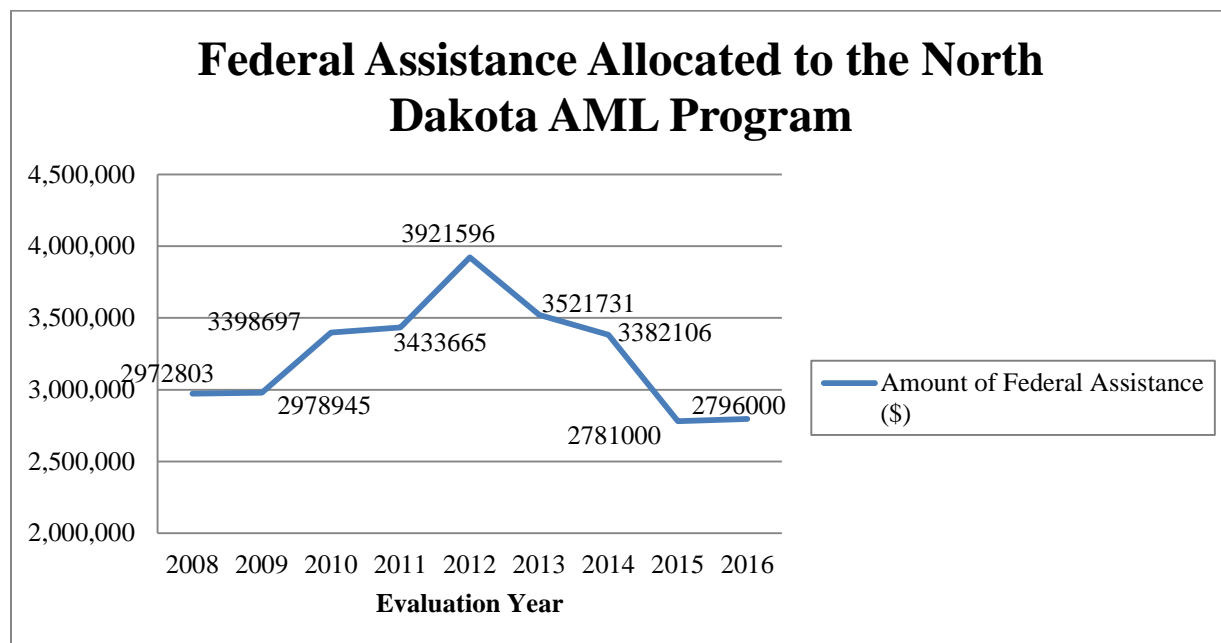


Figure 5: Amount of Federal Assistance Allocated to North Dakota (2008-2016)

The ND PSC maintains a very cost effective program with 14% of the grant dedicated to Administrative Costs. The remainder of the grant is spent on project design and construction.

The grant funding and expenditures are broken down as follows:

Table 1. AML Consolidated Grant Funding and Expenditures

<i>2015 AML Consolidated Grant (S15AF20022)</i>	
Prior Balance Replacement Funds	\$1,220,488
State Share (SS)	\$1,053,203
Historic Coal Funds (HC)	<u>\$507,309</u>
Total	\$2,781,000
 <i>Grant Line Item Budgets</i>	
Administrative Costs	\$394,586
Project Construction Costs	<u>\$2,386,414</u>
Total	\$2,781,000
 <i>2016 AML Consolidated Grant (S16AF20020)</i>	
Minimum Program Makeup	\$1,217,758
State Share (SS)	\$1,080,306
Historic Coal Funds (HC)	<u>\$497,936</u>
Total	\$2,796,000
 <i>Grant Line Item Budgets</i>	
Administrative Costs	\$396,205
Project Construction Costs	<u>\$2,399,795</u>
Total	\$2,796,000

D. e-AMLIS

Our EY2016 evaluation of e-AMLIS determined if the information the State entered into e-AMLIS agrees with information in its files. This topic was mandated for review due to a September 2004 report issued by the Interior's Office of the Inspector General (OIG). The report criticized the accuracy of e-AMLIS data, based on the OIG review of e-AMLIS data for four eastern States' AML programs. The OIG's review concluded that e-AMLIS data did not match data in those States' files and recommended establishing "a quality control system that ensures that States, Tribes, and the OSMRE, as applicable, review and certify the accuracy of data entered into AMLIS." In response to the OIG's recommendation, the OSMRE required its field offices to implement two requirements. The first requirement is to "assure that each State and Indian Tribe AML program has procedures in place to ensure and certify the accuracy of data entered into e-AMLIS" as part of the FY2004 oversight (subsequently changed to FY2005). OSMRE Headquarters subsequently advised field offices to drop the certification requirement. As a result, the focus is to make sure States and Tribes have requisite systems in place. The CAO has determined that North Dakota has such a system in place which is adequate to ensure accurate data is entered into e-AMLIS.

The second requirement implemented by the OSMRE in response to the OIG's recommendation stated, "once these State and Indian Tribe procedures are in place, the OSMRE will annually review a random sample of [PADs] to see if the information entered into e-AMLIS agrees with the information in the PAD." As a result, the focus is to make sure that the data which States and Tribes entered into e-AMLIS PADs (an integral part of e-AMLIS) agrees with the information in their files. The evaluation goal was to determine if the information North Dakota enters into e-AMLIS, for projects completed during the evaluation year, agrees with information in its files.

The North Dakota AMLD compiles data from various sources for input into e-AMLIS. These sources include project information spreadsheets, project diaries, close-out reports to the PSC and PSC-approved payment of contractor invoices. Data pertaining to emergency projects include procurement and contract data compiled in Project Summary Books, site-specific project data and site photographs. Project completion data is tracked on an Excel spreadsheet. Information in the spreadsheet includes the project name, location, contract number, contractor name, year of contract, year of completion, cost and method of reclamation.

Information entered into e-AMLIS is performed by designated Project Managers on the AMLD staff. This information is based on the above-mentioned data sources. Since AMLIS data is not intended to include maintenance project information, maintenance project data is housed in a separate location from other project data. The AMLD keeps records of maintenance projects in a separate booklet describing procurement, contracting, scope of work and photographs for each of the maintenance projects.

Completion information entered into e-AMLIS for the total number of projects completed during the evaluation year was analyzed and compared to the information contained within the AMLD files.

The CAO has concluded the information North Dakota AMLD entered into e-AMLIS for completed projects agrees with the information in its files.

APPENDIX 1: SUMMARY OF CORE DATA TO CHARACTERIZE THE AML PROGRAM

North Dakota Annual Evaluation Report

Evaluation Year 2016

The following tables present summary data pertinent to abandoned mine land activities under the North Dakota AML program. Unless otherwise specified, the reporting period for the data contained in the tables is the Evaluation Year. Other data and information used by OSMRE in its evaluation of North Dakota performance are available for review in the evaluation file maintained by the DFD-CAO.

Because of the enormous variations from state to state and the differences between state programs, the summary data should not be used to compare one state to another.

List of Tables

Table 1	Status of AML Inventory All Priority 1, 2, and 3 Hazards
Table 2	Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards
Table 3	Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 3 and SMCRA Section 403(b) Hazards
Table 4	Public Well-Being Enhancement
Table 5	Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining
Table 6	Reclamation Projects Started and/or Completed
Table 7	AML Program Grant Awards and Staffing

Table 1 – North Dakota Status of AML Inventory all Priority 1, 2, and 3 Hazards on June 30, 2016

	High Priority		Elevated Priority 3	Stand-Alone Priority 3	Total
	Priority 1	Priority 2		(Not adjacent or in conjunction w/ P1&2)	
UNFUNDED					
GPRA Acres		3958.9	N/A	121.0	4079.9
Dollars		35829402	N/A	423500	36252902
FUNDED					
GPRA Acres		5.0	0.0	0.0	5.0
Dollars		1282460	0	0	1282460
COMPLETED					
GPRA Acres	262.6	3694.3	0.0	0.0	3956.9
Dollars	3213370	46379487	0	0	49592857

Table 2 - North Dakota Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2016)

PROBLEM TYPE (keyword)																		
	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highwall (DH) (feet)	Dangerous Impoundment (DI) (count)	Dangerous Slide (DS) (acres)	Gases: Hazardous /Explosive (GHE) (count)	Hazardous Equip. /Facilities (HEF) (count)	Hazardous Water Body (HWB) (count)	Industrial/Residential Waste (IRW) (acres)	Portal (P) (count)	Polluted Water:Agri/Industrial (PWA)(count)	Polluted Water: Human Consumption (PWHC)(count)	Subsidence (S) (acres)	Surface Burning (SB) (acres)	Underground Mine Fire (UMF) (acres)	Vertical Opening (VO) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)																		
Units			0.0	43676.0	0.0	0.0		5.0	25.0	16.0	10.0	1.0	1.0	3194.7	0.0		42.0	N/A
GPRA Acres			0.0	609.7	0.0	0.0		0.5	125.0	16.0	1.0	5.0	5.0	3192.5	0.0		4.2	3958.9
Dollars			0	14896842	0	0		25000	190000	45000	50000	208700	7500	20281358	0		125002	35829402
ANNUAL RECLAMATION - EY2016 only (Completed)																		
Units				5000.0										15.9				N/A
GPRA Acres				71.4										15.9				87.3
Dollars				481125										1578673				2059798
HISTORICAL RECLAMATION - EY1978 - 2016 (Completed)																		
Units			317.0	137848.9	4.0	35.0		14.0	18.0	2.0	13.0	6.0	0.0	1466.7	21.2		91.0	N/A
GPRA Acres			317.0	1969.3	20.0	35.0		1.4	90.0	2.0	1.3	30.0	0.0	1460.6	21.2		9.1	3956.9
Dollars			972048	17292500	33629	122500		74861	278558	2	16003	746144	0	29655115	69286		332211	49592857

Table 3 - North Dakota Accomplishments in Eliminating Environmental Problems Related to Past Mining Priority 3 and SMCRA section 403(b) Hazards (As of June 30, 2016)

PROBLEM TYPE (keyword)														
	Bench , Solid Bench, Fill Bench (BE) (acres)													
	Industrial/Residential Waste Dump (DP) (acres)													
	Equipment and Facilities (EF) (count)													
	Gob (GO) (acres)													
	Highwall (H) (feet)													
	Haul Road (HR) (acres)													
	Mine Opening (MO) (count)													
	Pit, Open Pit, Strip Pit (PI) (acres)													
	Spoil, Spoil Bank (SA) (acres)													
	Slurry (SL) (acres)													
	Slump (SP) (acres)													
	Water (WA) (gallons)													
	Other (specify)													
	Water Supplies (WS) – Section 403(b) (count)													
	TOTAL													
UNRECLAIMED/REMAINING HAZARDS (Unfunded)														
Units				1.0					110.0			10.0		N/A
GPRA Acres				1.0					110.0			10.0		121.0
Dollars				5000					388500			30000		423500
ANNUAL RECLAMATION - EY2016 only (Completed)														
Units														N/A
GPRA Acres														0.0
Dollars														0
HISTORICAL RECLAMATION - EY1978 - 2016 (Completed)														
Units				0.0					0.0			0.0		N/A
GPRA Acres				0.0					0.0			0.0		0.0
Dollars				0					0			0		0

Table 4 – North Dakota Public Well-Being Enhancement (All Priority 1, 2, and 3 AML projects completed during EY 2016)							
#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)	
1	ND0000031	2015 Columbus Phase 15	DH	71.4	477125	80	
2	ND0000140	2015 Scranton-Bowman Phase 3 and Wilton - Reeder Site	S	2	215145	40	
3	ND0000033	2015 Scranton-Bowman Phase 3 and Wilton - Bowman Site	S	2	813019	45	
4	ND0000528	2015 Scranton-Bowman Phase 3 and Wilton - N Scranton Site	S	2	1527	40	
5	ND0000003	2015 Scranton-Bowman Phase 3 and Wilton - S Scranton Site	S	2	16560	40	
6	ND0000001	2015 Scranton/Bowman Phase 3 and Wilton - Wilton Site	S	2	463198	535	
7	ND0000014	2015 Sinkhole Filling AML Project - Beulah & Zap Sites	S	1.4	15225	5	
8	ND0000012	2015 Sinkhole Filling AML Project - Richter Site	DH	0	4000	5	
9	ND0000026	2015 Sinkhole Filling AML Project - New Leipzig Site	S	0.5	4065	5	
10	ND0000528	2015 Sinkhole Filling AML Project - Scranton Site	S	0.5	3130	5	
11	ND0000024	2015 Sinkhole Filling AML Project - Dickinson Site	S	1	11329	5	
12	ND0000001	2015 Sinkhole Filling AML Project - Wilton Site	S	2.5	39475	5	
TOTAL					2063798	810	

Table 5 – North Dakota - Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining (AML projects completed during EY 2016)									
#	PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA funding	Alternate Non-SMCRA Funding Source	Total non-SMCRA Funding	In-Kind Services	Total Project Funding	Comments
1	N/A								
TOTAL				0		0	0	0	

Table 6 – North Dakota – Reclamation Projects Started and/or Completed (AML projects started and/or Completed during EY 2016)

Project Type	Projects Started	Projects Completed
State/Tribe (EY 2016):	3	3
Federal (EY 2016):	0	0
Total (EY 2016):	3	3

**Table 7
North Dakota
AML Program Grant Awards and Staffing
(During EY 2016)**

AML Program Costs	
Administration	\$396,205
Construction	\$2,399,795
Water Supply Construction	0
AMD Set-Aside	0
Other(s) (Specify)	0
Total AML Funding	\$2,796,000
AML Program Staffing (full-time equivalents on June 30, 2016):	4.5

APPENDIX 2: COMMENTS OF STATE OF NORTH DAKOTA ON THE REPORT

North Dakota Annual Evaluation Report

Evaluation Year 2016

North Dakota had the following comments on the EY2016 Report:

The original draft separated the Scranton/Bowman Phase 3 and Wilton Project into two distinct projects, due to the fact that the Wilton site required an independent environmental assessment. NDAML prefers to group the Scranton, Bowman, Reeder and Wilton sites into the same project for purposes of cost effectiveness and efficiency. This revision required several minor updates throughout the draft report, and the revision of Tables 4 and 6, in Appendix 1. Other minor grammatical suggestions were also incorporated into the final report.