

# **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 2017**

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

## **EXECUTIVE SUMMARY**

The following is a summary of the Evaluation Year (EY) 2017 Oversight Report for the North Dakota Abandoned Mine Lands (AML) Program. This report covers the period of July 1, 2016 to June 30, 2017.

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 2017 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 \$2,793,000 in grant funding during EY2017. 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, four projects that are considered construction ready. A total of three non-emergency and one emergency projects were completed during EY2017.

OSMRE has determined that North Dakota has a system in place which is adequate to ensure accurate data is entered into e-AMLIS. The CAO has reviewed a random sample of PADs and is satisfied that all information entered into e-AMLIS agrees with the information in the PADs.

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 shows a recently formed sinkhole near Bowman, ND.*

## **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 Abandoned Mine Land Reclamation (AMLR) Program and the effectiveness of the program in meeting the applicable purposes of SMCRA as specified in Section 102. This report covers the 2017 Evaluation Year (EY) July 1, 2016 to June 30, 2017.

On December 23, 1981, the Secretary of the Department of Interior approved North Dakota's 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 NDPSC's 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](mailto: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.

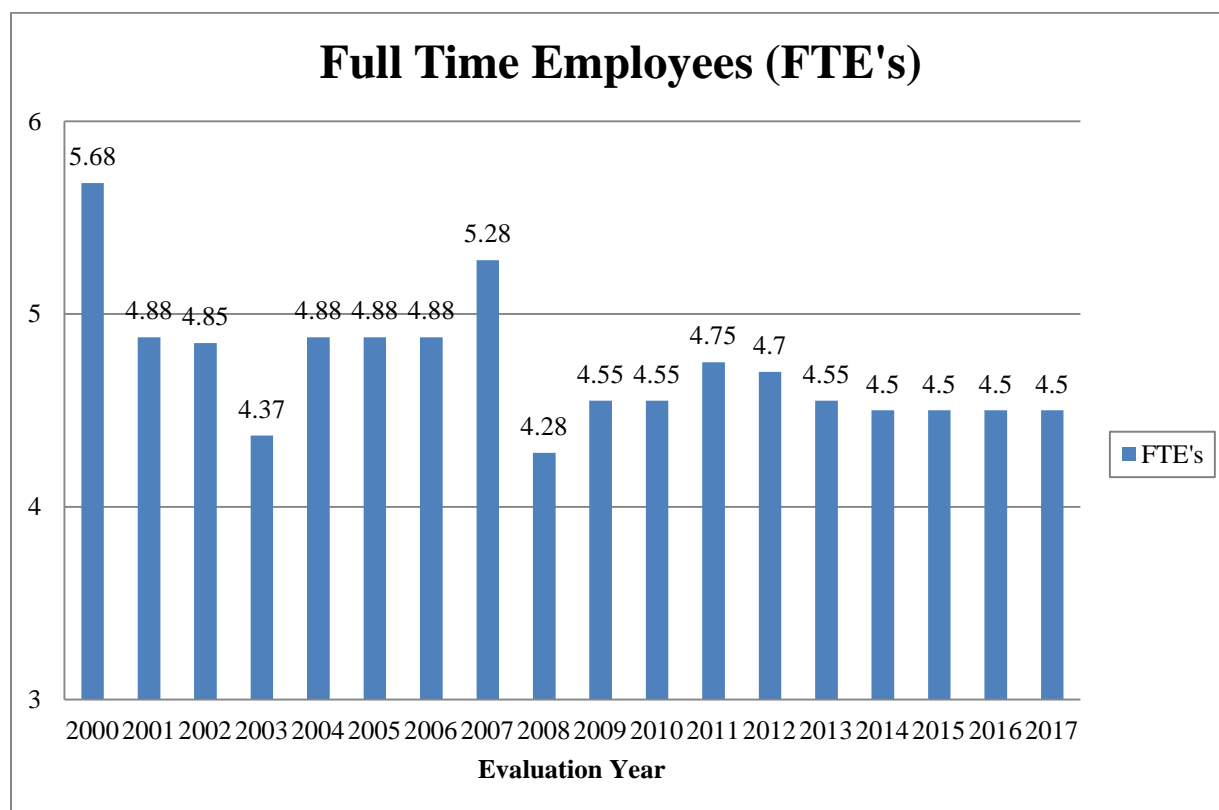
The following acronyms are used in this report:

<b>AML</b>	Abandoned Mine Land
<b>AML-1</b>	OSMRE Directive AML-1
<b>AML-22</b>	OSMRE Directive AML-22
<b>AMLIS</b>	Abandoned Mine Land Inventory System
<b>AMLR</b>	Abandoned Mine Land Reclamation
<b>AMLD</b>	Abandoned Mine Land Division
<b>ATP</b>	Authorization to Proceed
<b>CAO</b>	OSMRE’s Casper Area Office
<b>CE</b>	Categorical Exclusion
<b>DFD</b>	OSMRE’s Denver Field Division
<b>EA</b>	Environmental Assessment
<b>EIS</b>	Environmental Impact Statement
<b>EY</b>	Evaluation Year
<b>FAM</b>	OSMRE’s Federal Assistance Manual
<b>FONSI</b>	Finding of No Significant Impact
<b>GIS</b>	Geographic Information System
<b>GPS</b>	Global Positioning System
<b>NDCC</b>	North Dakota Century Code (Law)
<b>NDAC</b>	North Dakota Administrative Code (Rules)
<b>NDPSC</b>	North Dakota Public Service Commission
<b>NEPA</b>	National Environmental Policy Act
<b>NTTP</b>	National Technical Training Program
<b>OSMRE</b>	Office of Surface Mining Reclamation and Enforcement
<b>PAD</b>	Problem Area Definition
<b>SMCRA</b>	Surface Mining Control and Reclamation Act of 1977
<b>SPGM</b>	Suitable Plant Growth Material
<b>TIPS</b>	Technical Innovation and Professional Services
<b>WR</b>	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 AMLR program as set forth in Section 102 of SMCRA. Since the Program's inception, the North Dakota AMLD has conducted over 161 primary reclamation projects, 32 emergency projects and numerous construction maintenance and sinkhole filling projects, at a total cost of over \$52 million of federal funds. Over 27 linear miles of dangerous surface mine pits and highwalls, and over 1,627 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 AMLR 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.

### **A. National Technical Training Program (NTTP)**

During the evaluation year, NDPSC-AMLR staff members attended the *Erosion and Sediment Control* and *AML Design Workshop: Dangerous Highwalls* training courses. In addition, one staff member was a co-instructor for the *AML Drilling and Grouting* course.

## **B. Technical Innovation and Professional Services (TIPs)**

During the evaluation year, NDPSC-AMLR staff members attended the *CAD200: AutoCAD Map 3D with Raster Design*, and *Global Mapper for Mining and Reclamation* courses.

## **C. OSMRE Western Region Library**

The OSMRE Western Region's library services did not fill any requests from NDPSC for references or article reprints in EY2017.

# **IV. PUBLIC PARTICIPATION AND OUTREACH**

The term "public" includes all stakeholders (i.e. citizenry at large, industry, other federal, state or local agencies, and environmental groups). Opportunities for public participation occur at various points in the North Dakota AML reclamation program.

## **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. OSMRE's public solicitation for comment on the 2017 evaluation year was distributed on March 2th, 2016. OSMRE's public solicitation for comment on the 2018 evaluation year was distributed on February 27th, 2017. To be included in future solicitations, please make the request by contacting the OSMRE, Denver Field Division (DFD), Casper Area Office (CAO), at 150 East B St., Room 1018, Casper, WY 82602.

## **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 AMLR projects and the AMLR program at large. North Dakota publishes notices for each proposed major reclamation project on North Dakota's procurement website and solicits public comment and requests for public meeting participation. The AMLD 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 or started during EY2017 include:

- Jan. 15<sup>th</sup>, 2015: Public meeting held at the Wilton City Auditor's Office to discuss AML reclamation projects near Wilton, ND.
- Jan. 11<sup>th</sup>, 2017: Public meeting held in Bowbells, ND to discuss the 2017 Columbus Phase 16 Project.

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 2017 REVIEWS**

OSMRE Directive AML-22 Evaluation of State/Tribe AML Programs dictates that OSMRE oversight of State AMLR 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 2017 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 EY2017 was signed on May 17, 2016. 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 EY2017 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.

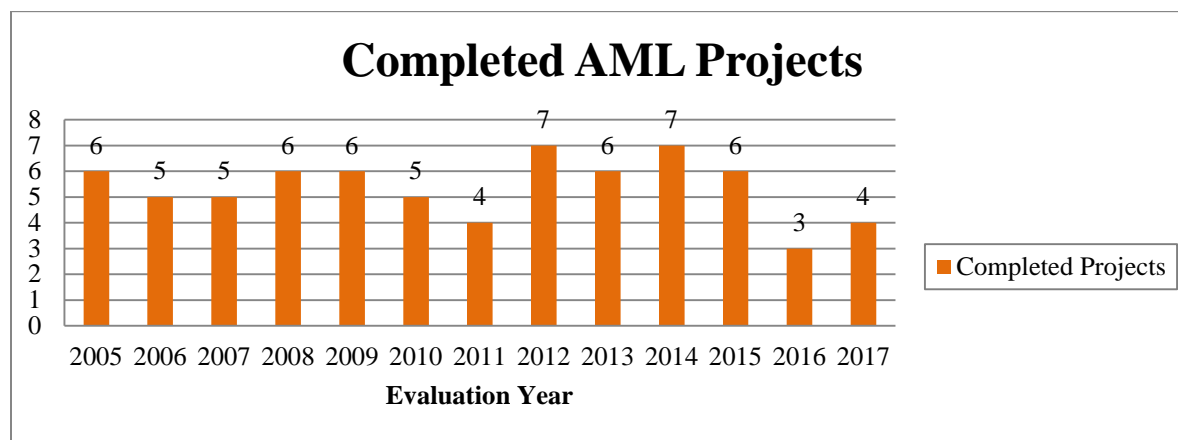
### A. Overall Reclamation Success

Our EY2017 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 EY2017. 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.

OSMRE conducted on-site oversight visits of select AML projects on May 9<sup>th</sup> and 11<sup>th</sup>, 2017. The sites visited include: 2017 Beulah Highway 200 Emergency Project, 2016 Bowman Foxhole Project, 2016 Sinkhole Filling Project, and the 2015 Scranton/Bowman Phase 3 and Wilton Project.

Three non-emergency and one emergency AML projects were completed during EY2017, making the total number of projects completed during EY2017, four.



**Figure 2: Number of Completed AML Projects**

**The following is a summary of major non-emergency AMLD Projects completed during EY2017:**

**2016 Wilton Phase 2 AML Project**

*Begin Date: 6/1/2016*

*End Date: 9/21/2016*

*AMLIS Key: ND001*

*Contract Cost: \$1,420,947*

*NEPA Action: ATP & FONSI issued Jan. 15, 2016*

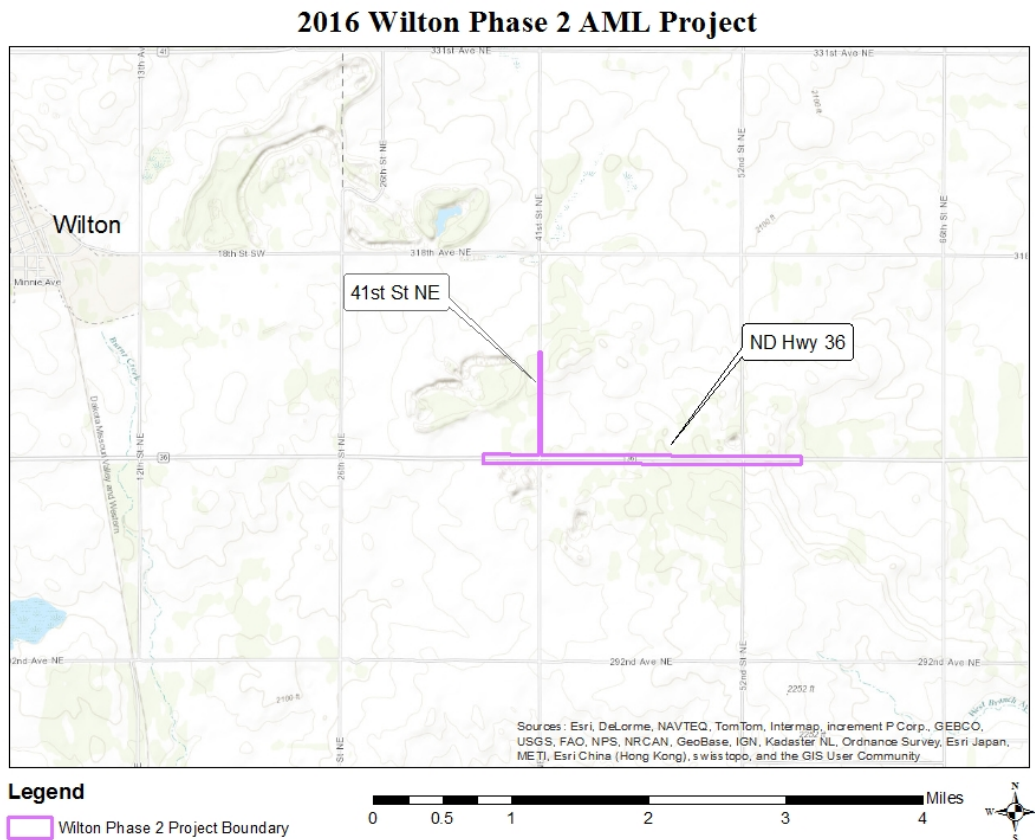
*e-AMLIS Closeout: 9/12/2016*

*Overall Success:* The 2016 Wilton Phase 2 AML Project involved drilling and pumping pressurized grout into collapsed underground mine workings in Burleigh County near Wilton, ND. During the early 1900s, this area was part of the Wilton Coal Mine, the largest underground lignite mine in the world at the time. Project areas included the rights-of-way of ND State Highway 36 and 41st Street southeast of Wilton. This project was conducted from June 1<sup>st</sup> through August 21, 2016. This project completed 26,272 feet of drilling, while using 6,641 feet of casing, and 8,494 cubic yards of grout. There were two contracts for this project, one for construction and one for material testing and the combined contract costs were \$1,420,947. Completion data for this project was entered into e-AMLIS on September 12, 2016. Contracts for this project were closed September 21, 2016.

This project is a continuation of the 2015 Wilton Phase 1 AML Project, which began in 2015 along 41<sup>st</sup> Street. The 2017 Wilton Phase 3 AML Project is scheduled to continue to progress eastward along Highway 36 and at a nearby farmstead. For more information, NDAML produced a project summary report for this project which can be accessed at <https://psc.nd.gov/jurisdiction/aml/projects/2016.php>.



**Photo 1: 2016 Wilton Phase 2 AML Project – drilling and grouting site along north side of Highway 36, facing east.**



**Figure 3: Location of 2016 Wilton Phase 2 AML Project**

### **2016 Bowman Foxhole AML Project**

*Begin Date: 9/19/2016*

*End Date: 11/2/2016*

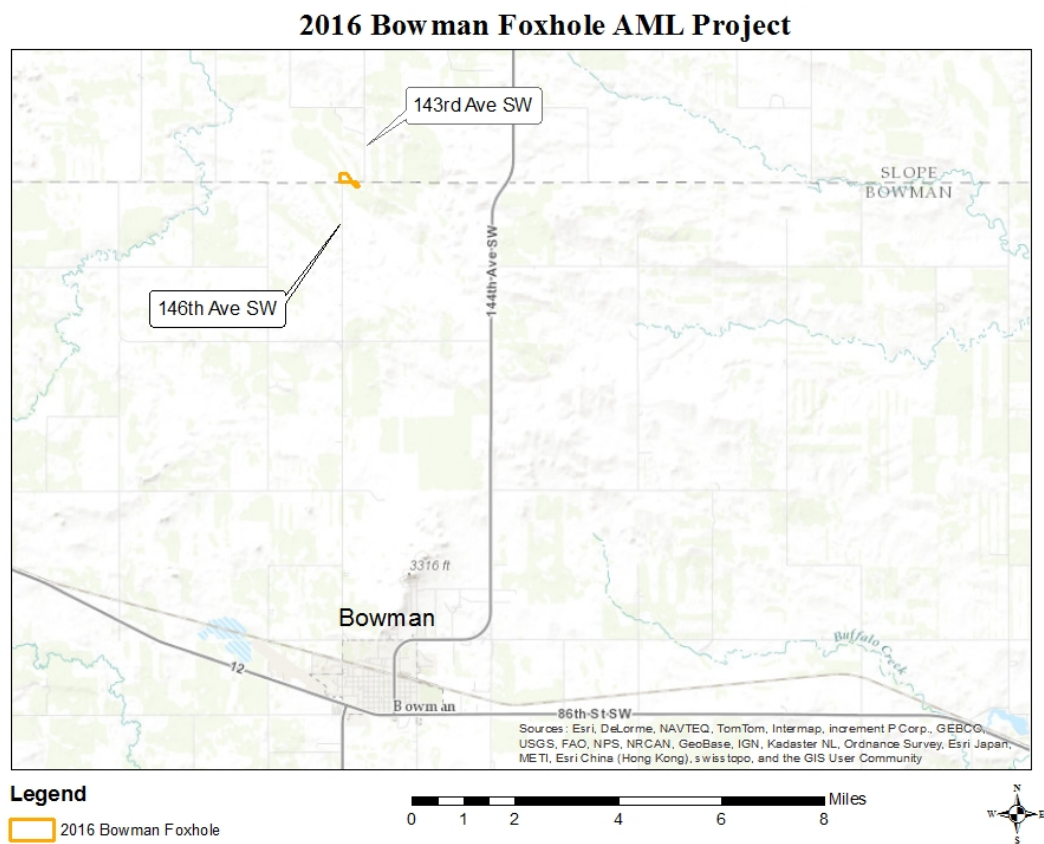
*AMLIS Key: ND041*

*Contract Cost: \$90,447.15*

*NEPA Action: ATP & FONSI issued April 7, 2016*

*e-AMLIS Closeout: 10/10/2016*

*Overall Success:* This project involved the elimination of 1,100 feet of highwalls at an abandoned surface mine about seven miles north of Bowman in Bowman and Slope Counties. This project was conducted from September 23<sup>rd</sup> through October 10<sup>th</sup>, 2016. Approximately 43,211 cubic yards of spoil material were used to backfill the highwalls and reclaim approximately 10 acres at this site. The contract cost for this project was \$90,447.15. The completion data for this project was entered into e-AMLIS on October 10, 2016. The contract for this project was closed November 2, 2016. For more information, NDAML produced a project summary report for this project which can be accessed at <https://psc.nd.gov/jurisdiction/aml/projects/2016.php>.



**Figure 4: Location of 2016 Bowman Foxhole AML Project**

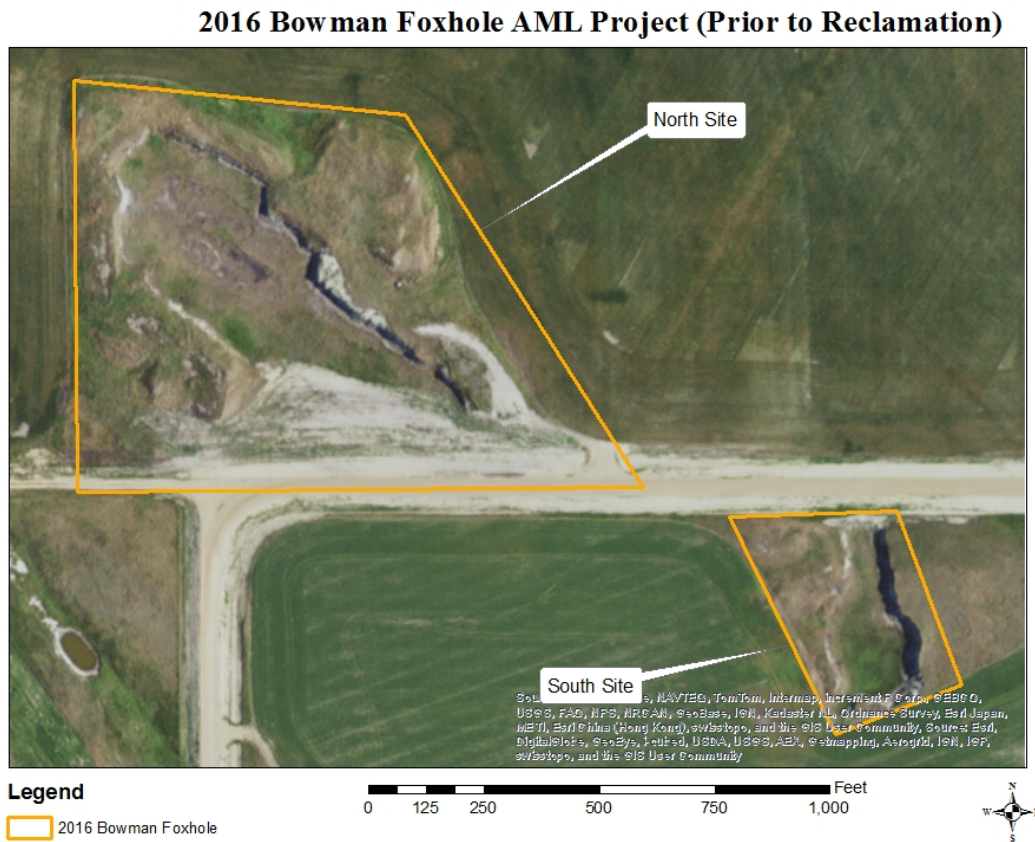


**Photo 2: North Site after reclamation.**





**Photo 3: South Site after reclamation.**



**Figure 5: Aerial photograph of the 2016 Bowman Foxhole AML Project prior to reclamation.**

## 2016 Sinkhole Filling AML Project

*Begin Date: 10/17/2016*

*End Date: 12/3/2016*

*AMLIS Keys: ND001, ND004, ND014, ND024, ND029, ND033, ND124*

*Contract Cost: \$87,893*

*NEPA Action: ATP & FONSI issued January 24, 2011, concurrence letter for 2016 project issued January 15, 2016*

*e-AMLIS Closeout: 1/18/2017*

*Overall Success:* This multi-year project involved surface backfilling of dangerous sinkholes caused by subsidence of underground mines, and re-spreading topsoil and seeding areas at a reclaimed surface mine. Locations for 2016 work included sixteen properties near the cities of Velva, Noonan, Dickinson, Haynes, Bowman, Wilton, and Beulah, North Dakota.

Approximately 138 non-emergency sinkholes were filled at these sites and maintenance work, including topsoil re-spreading and seeding, were conducted at the Buechler Site near Velva.

Construction was conducted from October 17<sup>th</sup> through December 3<sup>rd</sup>, 2016. The 2016 contract cost for this work was \$87,893. Completion data for each of the PADs where work occurred was entered into e-AMLIS February 1<sup>st</sup>-2<sup>nd</sup>, 2017 with costs as follows: Beulah (ND014) \$40,936, Wilton (ND001) \$4,340, Andrews Lake (ND033) 2,100, Haynes (ND124) \$5,375,

Dickinson/Binek (ND024) \$3,703, Noonan (ND029) \$14,832 and Buechler/Velva (ND004)

\$16,607. The contract for this project was closed January 18, 2017. For more information,

NDAML produced a project summary report for this project which can be accessed at

<https://psc.nd.gov/jurisdiction/aml/projects/2016.php>.

Summary of 2016 Sinkhole Filling AML Project						
Sites	Dates	Twp.	Rng.	Sec	# of sinkholes	Cost
Velva Maintenance	Oct 17-24	152	81	28	NA	\$16,606.96
Noonan	Oct 26-29	162	95	9	8	\$14,832.00
					51	
Dickinson	Nov 1-2	139	95	8	7	\$3,703.00
				18	1	
Haynes	Nov 7-8	129	94	16	8	\$5,375.00
Bowman	Nov 9	132	102	15	1	\$2,100.00
Wilton	Nov 14-16	143	79	36	1	\$4,340.00
				2	4	
				5	8	
				6	8	
				15	1	
Beulah	Nov 18- Dec 3	144	87	7	36	\$40,936.00
		144	88	12	4	
<b>TOTAL</b>					<b>138</b>	<b>\$87,892.96</b>

**Figure 6: Summary of the 2016 Sinkhole Filling AML Project.**

## 2017 Construction Ready Projects

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
2017 Wilton – Phase 3	\$1,500,000
2017 Columbus - Phase 16	\$450,000
2017 Exploratory Drilling	\$350,000
2017-2018 Sinkhole Filling & Construction Maintenance	\$100,000
<b>TOTAL</b>	<b>\$2,400,000</b>

**Figure 7: Construction Ready Projects planned for EY2017 field season.**

### Wilton Phase 3

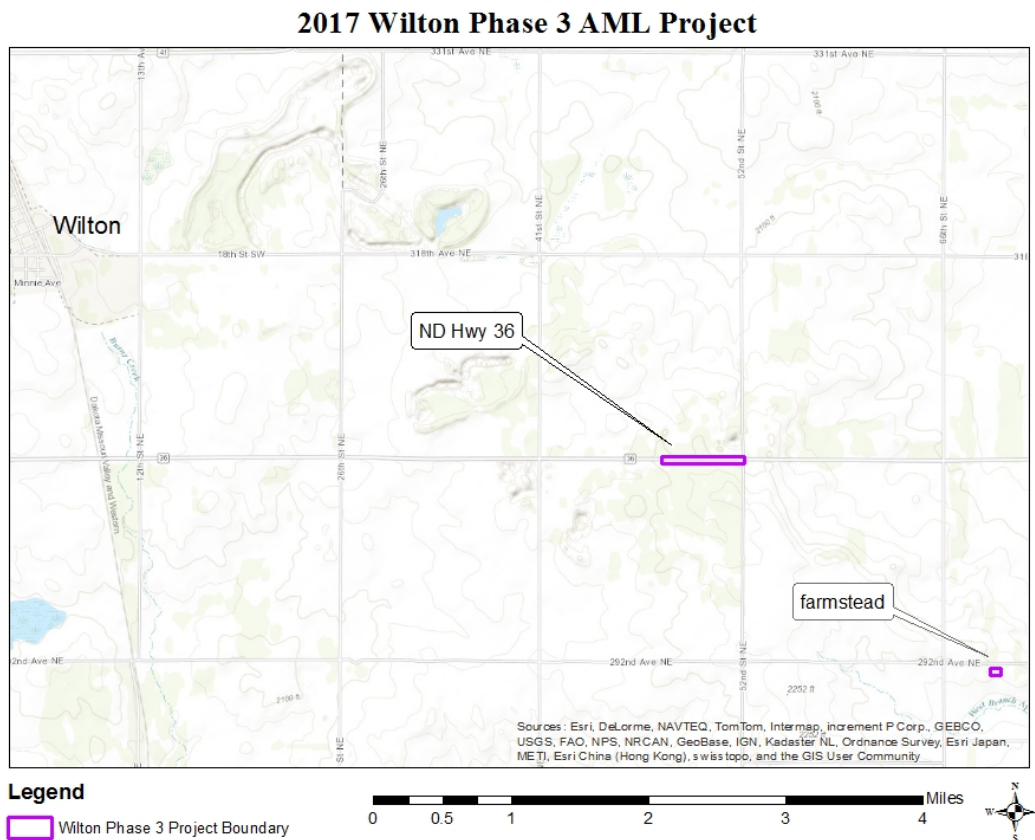
*AMLIS Key: ND001*

*Estimated Project Cost: \$1,500,000*

*NEPA Action: ATP& FONSI issued January 26, 2017*

*Project Summary:* This drilling and grouting project plans to be a continuation of work that began in 2015 to pump pressurized grout into collapsing underground mine workings. The sites are mainly under ND Highway 36 and a farmstead 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 should be needed to fill mine voids and about 10,000 feet of drilling is planned in these areas. The estimated project cost is \$1,500,000.





**Figure 8: Location of 2017 Wilton Phase 3 AML Project**

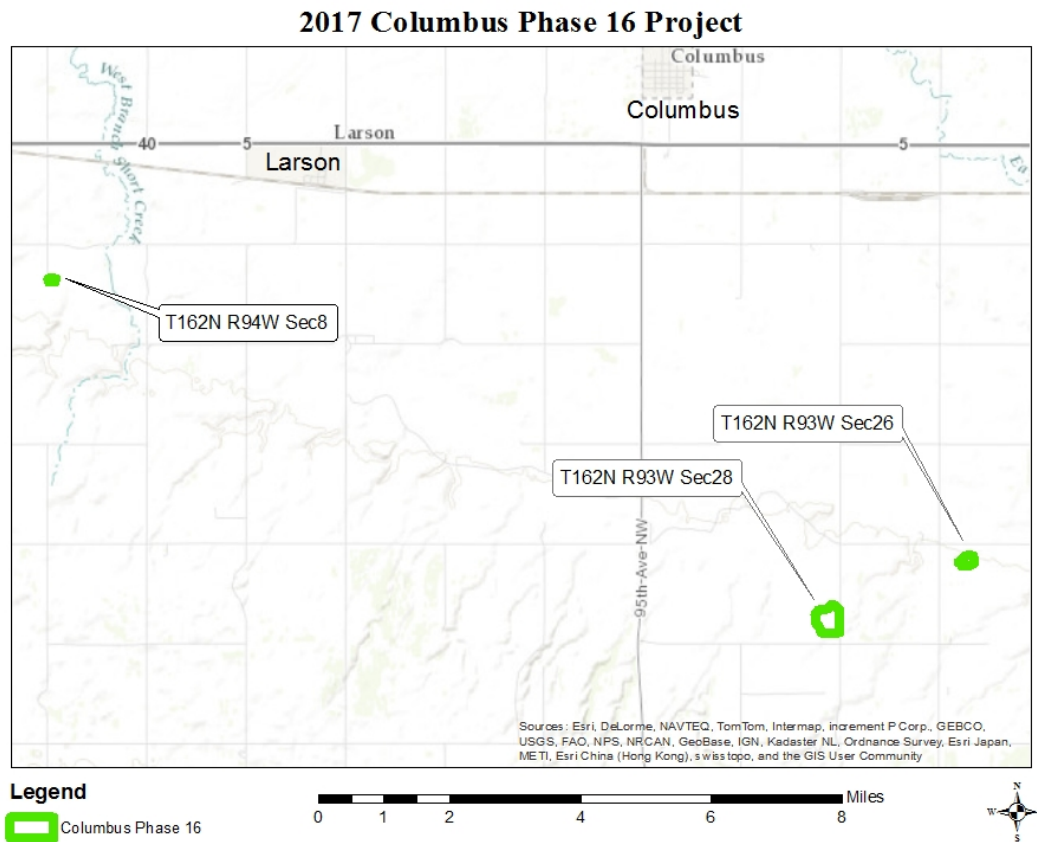
### **Columbus Phase 16**

*AMLIS Key: ND031*

*Estimated Project Cost: \$450,000*

*NEPA Action: ATP& FONSI issued January 26, 2017*

*Project Summary:* This 43 acre project should eliminate about 4,500 feet of hazardous highwalls at abandoned surface mine sites located south of the city of Columbus, ND, in Burke County. These AML sites are characterized by steep highwalls ranging from 15 to 25 feet high. The proposed reclamation work involves backfilling the highwalls with earthen material from adjacent spoil piles. About 185,000 cubic yards of spoil material will need to be moved in the reclamation process. The estimated project cost is \$450,000.



**Figure 9: Location of 2017 Columbus Phase 16 AML Project**

### **Exploratory Drilling**

*AMLIS Key: ND008, ND029, ND088, ND111, ND121, ND210, ND211*

*Estimated Project Cost: \$350,000*

*NEPA Action: Categorical Exclusion Determination issued January 26, 2017, Amendment issued May 16, 2017*

*Project Summary:* Approximately \$350,000 will be used for an exploratory drilling project to locate and characterize suspected abandoned underground coal mines. This investigatory project is expected to be conducted at locations near the cities of Burlington, Foxholm, Noonan, Parshall, and Roseglen, North Dakota. An amended Categorical Exclusion Determination was issued May 16, 2017 to add an additional site in Williston. Drilling will be conducted along road rights-of-way, in residential areas and near farmsteads.

**Legend**

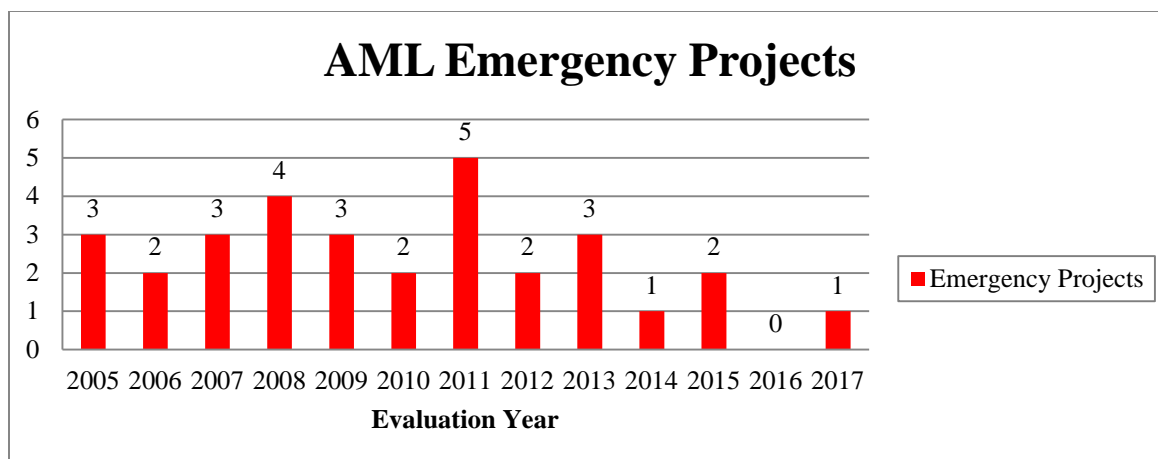
2017 Exploratory Drilling

## Sinkhole Filling, Construction Maintenance and Emergencies

*Estimated Project Cost: \$100,000*

*Project Summary:* Some available construction funds, estimated at \$100,000 will be used to backfill hazardous sinkholes caused by collapse of underground mines. Some funds may be used to conduct maintenance work on reclaimed sites. If necessary, some of these funds will be used for emergency projects.

North Dakota has managed its own Emergency AML Program since OSMRE approval in 1993. OSMRE no longer distributes emergency funding with the annual AML grant allocations. North Dakota funds and operates its Emergency AML Program with in conjunction with non-emergency AML projects. One emergency AML Project was conducted during EY2017.



**Figure 11: Number of AML Emergency Projects (2005-2017)**

### **2017 Beulah Highway 200 Emergency AML Project**

*Begin Date: 4/26/2017*

*End Date: 4/28/2017*

*AMLIS Key: ND014*

*Contract Cost: \$4,945*

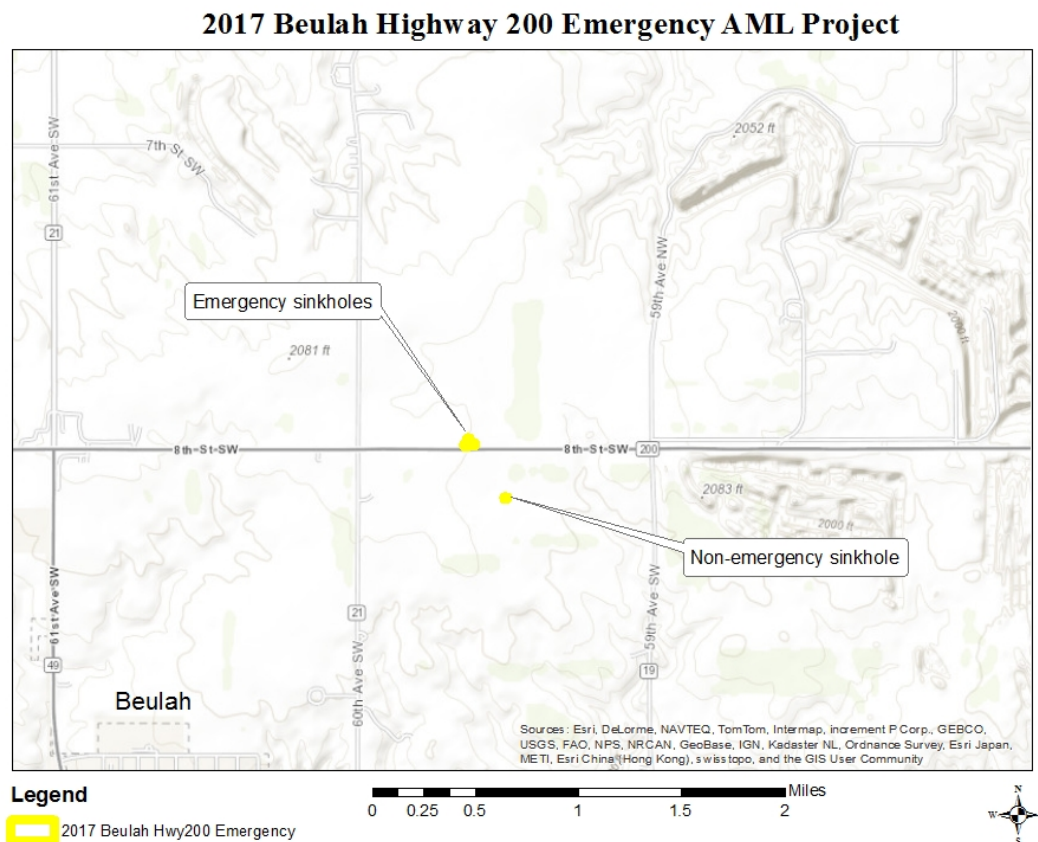
*NEPA Action: ATP& FONSI issued March 30, 2017*

*e-AMLIS Closeout: 6/23/2017*

*Overall Success:* This project involved filling dangerous sinkholes on and near the right-of-way of ND State Highway 200, north of Beulah, ND. The North Dakota Department of Transportation reported these sinkholes March 27, 2017. NDPSC investigated the next day and OSM granted authorization to proceed on March 30. Project dates were April 26-28, 2017, and the contract cost was \$4,945.

The project site is located approximately 1.3 miles east of the intersection of North Dakota Highway 49 and North Dakota Highway 200. Multiple sinkholes are present both north and south of Highway 200, the result of decades of underground mining at the former Knife River Coal Mine. The extent of these features severely limits the utility of these lands, making them unusable for farming. At the project site, two sinkholes had opened up within the right-of-way of Highway 200. A third sinkhole opened just outside of the right of way, but was close enough to be of concern to passing traffic. This hole also exposed two telephone fiber optic cables. Approximately 700 feet east and 1000 feet south of the three sinkholes, a fourth sinkhole appeared in a cropped field. While OSMRE concurred with NDAML that the three sinkholes located within or near the highway right-of-way did meet emergency criteria as stated in Chapter 4-120 of the Federal Assistance Manual, the fourth sinkhole did not. For matters of efficiency and cost effectiveness, the fourth sinkhole was abated at the same time as the three emergency sinkholes. All four of these features fell within the project area encompassed by the 2017

Sinkhole Filling Project, and NEPA documentation completed for that project is valid for this project as well.



**Figure 12: Location of 2017 Beulah Highway 200 Emergency AML Project**

### **C. AML Grant Fiscal and Administrative Reviews**

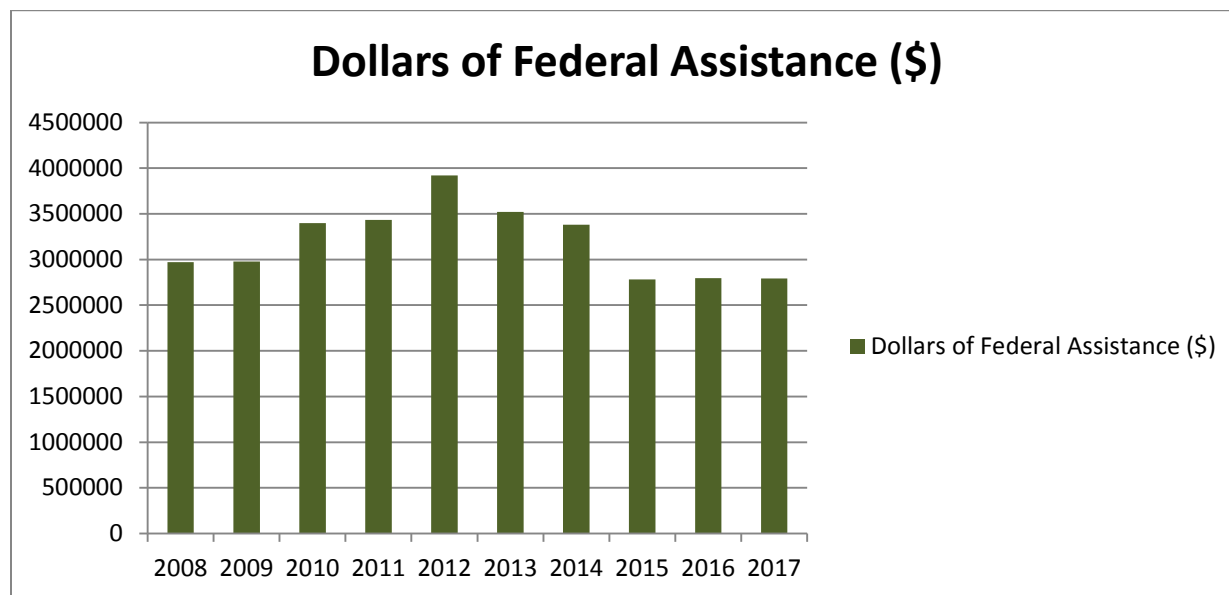
When OSMRE receives a grant application from the North Dakota AMLD, the OSMRE staff review the application package to determine compliance with programmatic requirements. This review ensures that the application meets the requirements set forth in the Federal Assistance Manual (FAM) Part 1-120-30B including 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 \$2,796,000 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.

The North Dakota AMLD was allocated \$2,793,000 dollars for their fiscal year 2017 grant period, beginning March 1, 2017. Grant No. GR707380 (S17AF20030) began on March 1, 2017 and is scheduled to end on February 28, 2020. All projects conducted during the grant periods are anticipated to involve the reclamation of abandoned surface and underground coal mines.



**Figure 13: Amount of Federal Assistance Allocated to North Dakota (2008-2017)**

The ND PSC maintains a very cost effective program with only 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**

*2016 AML Consolidated Grant (S16AF20020)*

Minimum Program Makeup	\$1,217,758
State Share (SS)	\$1,080,306
Historic Coal Funds (HC)	<u>\$497,936</u>
Total	\$2,796,000

*Grant Line Item Budgets*

Administrative Costs	\$396,205
Project Construction Costs	<u>\$2,399,795</u>
Total	\$2,796,000

*2017 AML Consolidated Grant (S17AF20030)*

Minimum Program Makeup	\$1,361,327
State Share (SS)	\$1,042,668
Historic Coal Funds (HC)	<u>\$389,005</u>
Total	\$2,793,000

*Grant Line Item Budgets*

Administrative Costs	\$396,226
Project Construction Costs	<u>\$2,399,774</u>
Total	\$2,793,000

**D. e-AMLIS**

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.

OSMRE's EY2017 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.” The CAO has reviewed a random sample of PADs and is satisfied that all information entered into e-AMLIS agrees with the information in the PAD.



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

### **North Dakota Annual Evaluation Report**

#### **Evaluation Year 2017**

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, 2017**

	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	49.3	4102.20	N/A	169	4320.50
Dollars	250000	37230107	N/A	423,500	37903607
FUNDED					
GPRA Acres	0	5	No Data	0	5
Dollars	0	1288600	No Data	0	1288600
COMPLETED					
GPRA Acres	262.75	3721.04	No Data	0	3983.79
Dollars	3218315	47978774	No Data	0	51197089

Table 2 - North Dakota Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2017)

PROBLEM TYPE (keyword)																		
	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highway (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	56176	0	0		5	25	16	10	1	1	3208.7	0		42	N/A
GPRA Acres			0	788.30286	0	0		0.5	125	16	1	5	5	3206.5	0		4.2	4151.50
Dollars			0	15734280	0	0		25000	190000	45000	50000	208700	7500	21094625	0		125002	37480107
ANNUAL RECLAMATION - EY2017 only (Completed)																		
Units				1,100										11.2				N/A
GPRA Acres				15.7										11.2				26.9
Dollars				107,054										1497178				1604232
HISTORICAL RECLAMATION - EY1978 - 2017 (Completed)																		
Units			317	138948.9	4	35		14	18	2	13	6	0	1477.9	21.17		91	N/A
GPRA Acres			317	1985.02	20	35		1.4	90	2	1.3	30	0	1471.8	21.17		9.1	3983.79
Dollars			972048	17399554	33629	122500		74861	278558	2	16003	746144	0	31152293	69286		332211	51197089

**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, 2017)**

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					158			10		N/A
GPRA Acres				1					158			10		169
Dollars				5,000					388,500			30,000		423500
ANNUAL RECLAMATION - EY2017 only (Completed)														
Units														N/A
GPRA Acres														0
Dollars														0
HISTORICAL RECLAMATION - EY1978 - 2017 (Completed)														
Units				0					0			0		N/A
GPRA Acres				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 2017)**

#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)
1	ND000001	2016 Wilton Phase 2 AML Project	Subsidence	7	1420947	535
2	ND000014	2017 Beulah Highway 200 Emergency AML Project	Subsidence	0.2	4,945.00	5
3	ND000041	2016 Bowman Foxhole AML Project	Dangerous Highwall	15.7	90,447.00	45
4	ND000001	2016 Sinkhole Filling AML Project (Wilton)	Subsidence	0.5	4340	5
5	ND000004	2016 Sinkhole Filling AML Project (Buechler)	Dangerous Highwall	0	16607	5
6	ND000014	2016 Sinkhole Filling AML Project (Beulah)	Subsidence	1.5	40936	5
7	ND000024	2016 Sinkhole Filling AML Project (Binek)	Subsidence	0.5	3703	5
8	ND000029	2016 Sinkhole Filling AML Project (Noonan)	Subsidence	0.5	14832	5
9	ND000033	2016 Sinkhole Filling AML Project (Andrews Lake)	Subsidence	0.5	2100	5
10	ND000124	2016 Sinkhole Filling AML Project (Haynes)	Subsidence	0.5	5375	5
TOTAL				26.9	1604232	620

**Table 5 – North Dakota - Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining (AML projects completed during EY 2017)**

#	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		NA							
TOTAL				0		0	0	0	

**Table 6 – North Dakota – Reclamation Projects Started and/or Completed  
(AML projects started and/or Completed during EY 2017)**

Project Type	Projects Started	Projects Completed
North Dakota (EY 2017):	3	4
Federal (EY 2017):	0	0
Total (EY 2017):	3	4

**Table 7 – North Dakota – AML Program Grant Awards and Staffing  
North Dakota  
AML Program Grant Awards and Staffing  
(During EY 2017)**

AML Program Costs	
Administration	396,226
Construction	2,399,774
Water Supply Construction	0
AMD Set-Aside	0
Other(s) (Specify)	0
<b>Total AML Funding</b>	<b>2,793,000</b>
<b>AML Program Staffing</b> (full-time equivalents on June 30, 2017):	<b>4.5</b>

## **APPENDIX 2: COMMENTS FROM STATE OF NORTH DAKOTA ON THE REPORT**

### **North Dakota Annual Evaluation Report**

#### **Evaluation Year 2017**

#### **North Dakota had the following comments on the EY2017 Report:**

The North Dakota AMLD responded on September 14, 2017 with comments on a draft version of this report. Corrections were made to the acronyms section and information on the TIPs and NTTP courses taken by state personnel was updated. Section V. D. regarding OSMRE's review of e-AMLIS data was also updated to reduce redundancies. Table 4 was also updated to correctly reflect the number of people with reduced exposure for the 2016 Bowman Foxhole Project.

The AMLD checked and agreed with the data in Tables 1-7, but noted the need for additional information regarding Table 2. When collecting data for Tables 1-5, and to help maintain consistent reporting between states, OSMRE utilizes a series of standardized queries in e-AMLIS. Data from the standardized e-AMLIS queries matches the data in Tables 1-5.

The standardized queries only include information from select Program Areas. North Dakota AMLD ran independent e-AMLIS queries that included all Program Areas, including the Rural Abandoned Mine Program (RAMP), which completed \$775,459 of AML reclamation, and the Federal Emergency Program (FEA), which completed \$134,350 of AML reclamation in North Dakota. This information is not accounted for in Table 2. While these Program Areas are worth noting, they only account for a small fraction of the \$52 million in AML Reclamation that has been completed since the state program's inception.

OSMRE would like to thank the NDPSC for their cooperation and assistance in gathering the information needed to produce this report. Their efforts help to ensure that the information in this report is as accurate and representative as possible.