



OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT

ANNUAL EVALUATION SUMMARY REPORT

FOR THE

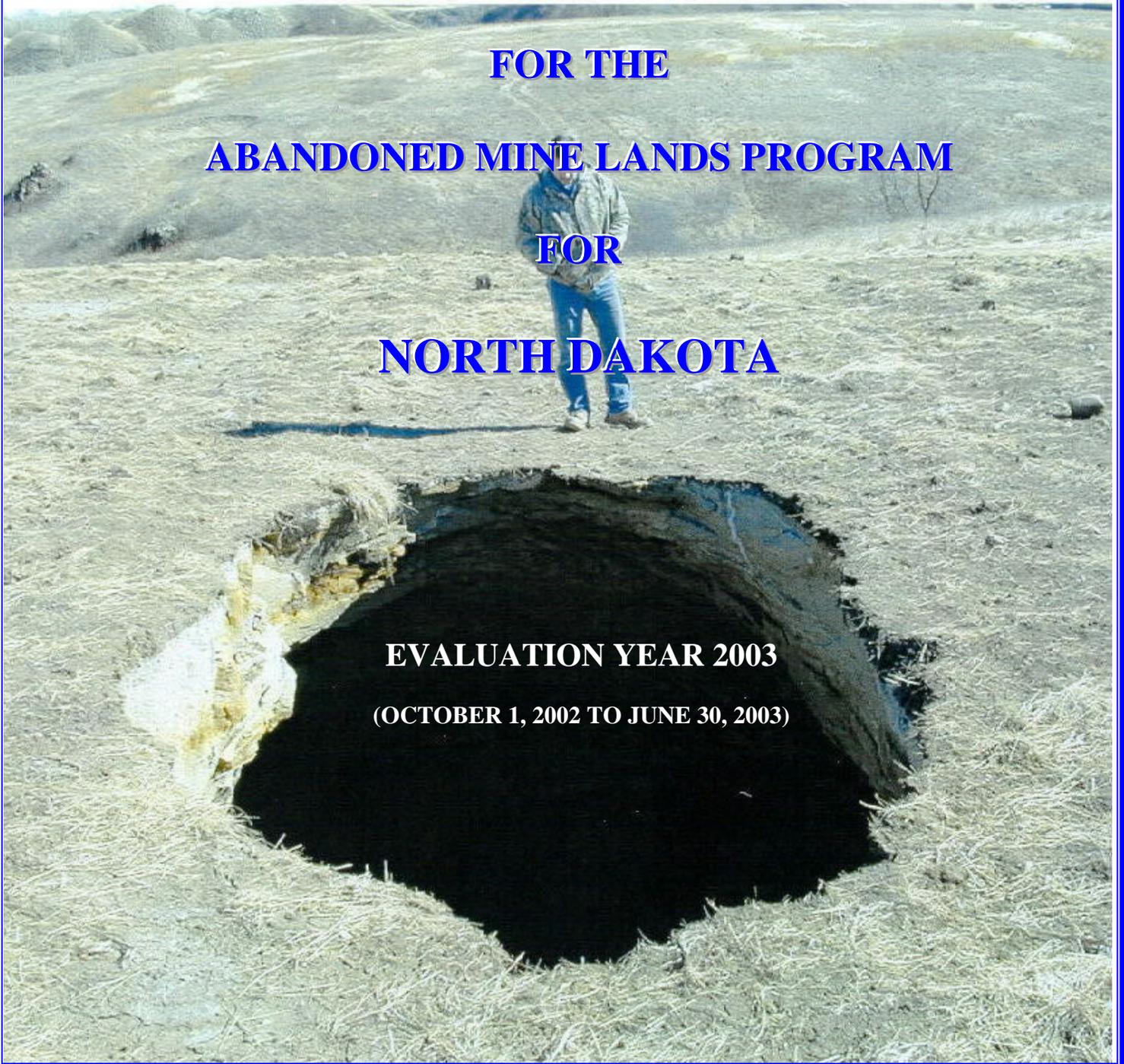
ABANDONED MINE LANDS PROGRAM

FOR

NORTH DAKOTA

EVALUATION YEAR 2003

(OCTOBER 1, 2002 TO JUNE 30, 2003)



2003 ANNUAL REPORT FOR NORTH DAKOTA

PART I. INTRODUCTION

The North Dakota Abandoned Mine Land Reclamation (AMLR) program continues to operate under the guidelines of the Surface Mining Control and Reclamation Act (SMCRA), the approved State Reclamation Plan, the Federal Assistance Manual, and associated rules, regulations and policy decisions. The State AMLR program is administered by the Abandoned Mine Land Division (AMLD) of the Public Service Commission (PSC). The State was granted primacy in 1981 and they administer an excellent AMLR program in full compliance with their approved AMLR Plan. Oversight of the state reclamation program is conducted by the Casper Field Office (CFO) of the Office of Surface Mining (OSM), and the topics for this report were selected in concert with the State. This evaluation is based on OSM Directive AML-22 and covers the period of October 1, 2002 to June 30, 2003.

North Dakota is a minimum program state that receives only \$1.5 million dollars each year to accomplish the necessary reclamation of hazardous abandoned mines. With this limited funding, the AMLD must complete reclamation work in an efficient and cost effective method to stretch their fiscal capabilities as far as possible. All of the project design work is completed in house by staff personnel, and the actual reclamation work is contracted out to private construction firms. The minimum funding does not allow for completion of the majority of the projects in one construction season, so larger projects must be phased over a period of years to achieve adequate reclamation. Several projects are presently ready for immediate construction if additional funding were to become available.

The AMLD initiates reclamation activities each spring as soon as weather conditions allow. Many of the 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 that are located near the paved road system, and it continues until it is halted by the severe weather conditions usually encountered in North Dakota during the winter. Some types of work, such as drilling to locate underground voids, can be continued into the winter months. However, this is generally the time of the year when future projects are designed, and other coordination necessary to get projects ready for the next construction season is completed. All of the reclamation completed in North Dakota to date has been on abandoned coal mines, and no non-coal work is planned. The State estimates that it will take at least ten to fifteen years to reclaim the coal problems now listed on their inventory with the present minimum program funding level.

The CFO 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 the other State and Federal agencies that must be contacted during the course of preparing projects for reclamation.

One AMLR grant was awarded to the State during this evaluation period and it became active on March 1, 2003. The grant was approved well within the government performance period requirement of 60 days. No problems or issues exist in the North Dakota AMLR program.

The following is a list of acronyms used in this report:

SMCRA	Surface Mining Control and Reclamation Act
AMLIS	Abandoned Mine Land Inventory System
AMLR	Abandoned Mine Land Reclamation
AMLD	Abandoned Mine Land Division

PSC Public Service Commission
OSM Office of Surface Mining
CFO Casper Field Office
AML Abandoned Mine Land

Part II. Noteworthy Accomplishments

The AMLD staff continues to be a major contributor of technical articles in the newsletter of the National Association of Abandoned Mine Land Programs. New and innovative reclamation techniques are presented for the benefit of the entire association in most issues of the newsletter. In addition, the staff contributes technical papers at many of the national conferences. All of the papers presented at the various conferences have been placed on the North Dakota AMLD website to make them available for use on a permanent basis by other reclamation programs and the general public.

The State is in the final year of an eight year project to grout underground voids in the area adjacent to the east side of Dickinson, North Dakota. This is a heavily undermined area, and some of the earliest abandoned mine reclamation was completed here. This project consisted of grouting voids under heavily used roadways, commercial structures and private residences. The drilling projects to locate the voids were usually completed during the winter months when other reclamation work was not possible. Once the voids were located and cased, they were grouted during the summer construction season. This project undoubtedly prevented severe damage to the structures and roadways, and allowed local residents and visitors to use the area with a higher degree of safety.

Part II. Post Reclamation Maintenance

The North Dakota AMLD post reclamation monitoring schedule calls for each project to be closely monitored for a period of three years after it is completed. However, the most heavily undermined parts of the State do not have significant rock strata to support the soil over the abandoned underground mines. Large, deep subsidence holes often appear overnight, and history shows that once they are filled additional slumping will probably occur at some point. Also, once a subsidence event appears, others usually follow in a short time in the same general area. The AMLD has adopted a policy of checking all known subsidence prone areas every time any of the staff are in the area, to keep better control of any hazards that exist, and to better correct recurring problems on sites that have been reclaimed. The monitoring process is assisted by the good relationship and close contact the AMLD has with the landowners. The staff is often notified of new subsidence events the same day that they occur on private land. Only the subsidence events that are hazardous to livestock or humans are presently being reclaimed. The minimum program funding does not allow for all the subsidence holes to be filled at this time. Hopefully, the AML program will be continued, and funding increased, so that the subsidence problems that are posing safety hazards and taking large amounts of crop and pasture land out of use in parts of North Dakota can be addressed.



Subsidence features that will not be reclaimed at this time because they are not dangerous to humans or livestock

Part III. On Site Evaluation of Projects

Because of the short time frame of this reporting period, and the fact that the majority of the period was during the winter months when no construction was underway, there was no on site evaluation of reclamation projects. Projects will be visited during the 2004 evaluation period and the results of those visits will be included in that evaluation report. Historically, North Dakota has done an excellent job of reclaiming the hazards of past mining. Projects that have been completed for two years or more are identical to the surrounding terrain and impossible to identify unless they are pointed out by someone who was familiar with the site prior to reclamation. The following before and after photos of the Zenith Project are a good example of this.



Zenith site in April of 1987 prior to reclamation.



Zenith site after reclamation in August of 2002.

Part IV. AMLIS Inventory Maintenance

The AMLD considers inventory maintenance a high priority and it is accomplished in an excellent manner. The small staff of the AMLD spends the entire summer in the field supervising the reclamation of abandoned mine sites, so information regarding completed sites is not compiled and entered into the AMLIS until weather conditions prohibit the continuation of outside work. However, new sites are entered into the system as soon as they are discovered.

Part V. Fiscal and Administrative Controls

The CFO conducted financial oversight on the North Dakota AML program during this evaluation period. Items reviewed were drawdowns, property management, timeliness of grant applications and reports, audits, accounting and procurement of property. During a drawdown analysis of the most recent grant, all fifteen draws were sampled. North Dakota was reimbursed the correct amounts for each draw of funds, and the draws followed appropriate expenditures. The State's procedure for drawing funds is to expend State general funds and then be reimbursed by the U.S. Treasury. All financial reporting was timely regarding the status of the existing AML grant, and grant applications are submitted on time. Recent AML construction bids were reviewed to ensure that there was competitive bidding for the work. Thirteen projects were sampled and the lowest bid accepted in each case. Eleven of the projects had more than one bidder.

The AMLD continues to report and transfer property correctly and in a timely manner. A property inventory was completed during this evaluation period in accordance with Common Rule requirements. Travel taken by AMLD personnel was reviewed to ensure compliance with North Dakota's policies and procedures. Both in State and out of State travel was checked, proper approvals were obtained, and per-diem payments were correct.

The last A-133 audit on the AMLD was completed for the 1998 evaluation year. Since this time the new Federal criteria under A-133 have been applied, which state that a new audit may not be required. The

North Dakota State Auditor's Office conducted a risk assessment of the AMLD to determine if an audit is necessary. The AML program was determined to be low risk and thus no new audit was conducted. No findings have been reported in the past several audits. The application of program income was also reviewed in regard to each active grant, and it was determined that program income is being properly applied to the grants.

Part VI. Emergency Program

North Dakota administers their own emergency program. Information regarding a possible emergency project is sent to the CFO and an approval or disapproval for the expenditure of emergency funding is usually returned to the State that same day. Abatement of the emergency situation is usually complete within a week of the approval of funds expenditure. No emergency projects were necessary during this reporting period.

Part VII. Public and Interagency Participation

The AMLD goes to great lengths to develop and maintain a good working relationship with all the State and Federal agencies it works with. This carries over into the relationship with local agencies and groups, and to the landowners who have AML sites on their land. When a project must be completed in phases, the necessary clearances and permits are obtained for the whole project during the initial phase. Planning for reclamation construction is also done for the entire project at this time. This saves a lot of staff time for the AMLD and the other agencies involved, and the private landowner can be given a schedule of when his property will be in use by the reclamation contractor. Habitat enhancement for wildlife and waterfowl is incorporated into each project where it is feasible, and the retention of surface water for landowners is a high priority. The AMLD has worked closely with the Game and Fish Department and Ducks Unlimited in the design of impoundments and establishing seed mixtures for revegetation. They have also recorded a significant amount of the mining history of the State to be provided to educational facilities, and to mitigate the loss of important cultural resources during the reclamation process.

The following three photographs have been attached to this annual report to further demonstrate the degree of hazardous conditions encountered in subsidence prone areas of the State, and are just a few of the many such subsidence events that occur in North Dakota each year.



This sinkhole was located on pasture land owned by Mike Wolf near Dickinson, ND. 65 cubic yards (equivalent to 65 truckloads) of dirt were needed to fill this hole.



This fifteen foot deep sinkhole was located on the side slopes of an old land fill now owned by Willard Schnell. It was within 75 feet of Lehigh Road.



About 50 dangerous sinkholes like this one were filled on properties owned by M Pflieger, Mr. Kenny Winkler and the North Dakota Game and Fish Department, no

**CHART #1
NORTH DAKOTA
CONSTRUCTION READY PROJECTS**

Project	Cost	Economic Impact*	Environmental Benefits
Lehigh Road Phase VIII	\$160,000	Income: \$1.0 Employment: 13	Subsidence Prevention Public Safety
Beulah/Zap VI through VIII	\$700,000	Income: \$1.7 Employment: 56	Subsidence Prevention Public Safety
Noonan Highwall Project	\$200,000	Income: \$1.0 Employment: 17	Dangerous Highwall Public Safety
Columbus-Phase V	\$700,000	Income: \$1.7 Employment: 56	Highwall Removal Dangerous Highwall
Maintenance, Drilling Appraisals, etc.	\$100,000	Income: \$1.0 Employment: 8	Reclamation Preparation
Wilton Project	\$350,000	Income: \$1.0 Employment: 29	Subsidence Prevention Public Safety
Grandview/Co. Rd. 9 Phase I through IV	\$2,000,000	Income: \$5.2 Employment: 180	Subsidence Prevention Public Safety
Garrison Project Phase 11 through III	\$200,000	Income: \$1.0 Employment: 17	Subsidence Prevention Public Safety
Snake Road, Burlington	\$250,000	Income: \$1.0 Employment: 21	Subsidence Prevention Public Safety
Buechler Phase II	\$160,000	Income: \$1.0 Employment: 13	Subsidence Prevention Public Safety
TOTAL	\$4,820,000	Income: \$15.6 Employment: 410	Restoration of Land Public Safety

*Income expressed in millions of dollars

Employment expressed in number of persons employed as a result of the expenditure

CHART #2
NORTH DAKOTA
ACRES AND HAZARDS

Hazard ¹	October 1, 2001 Status ²	FY 2002 Additions ³	Reclaimed in FY2002 ⁴	October 1, 2002 Status ⁵
CS Clogged Stream	None	None	None	None
CSL Clogged Stream Lands	None	None	None	None
DH Dangerous Highwalls	106,325	None	1,550 in Ft	104,775
DI Dangerous Impound.	None	None	None	None
DPE Dangerous Piles and Embankments	30 acres	None	None	30 acres
DS Dangerous Slides	None	None	None	None
GHE Gas and Hazardous Equipment	None	None	None	None
UMF Underground Mine Fire	None	None	None	None
HEF Hazardous Equipment and Facilities	6	None	None	6
HWB Hazardous Water Body	25	None	None	25
IRW Industrial/Residential Waste	17 acres	None	None	17 acres
P Portals	10	None	None	10
PWAI Polluted Water, Agr. and Industrial	5	None	None	5
PWHC Polluted water, Hu. Cons.	1	None	None	1
S Subsidence	2,105	None	12	2,093
SB Surface Burning	10 acres	None	10 acres	None
VO Vertical Opening	155	None	30	125
SA Spoil Areas	110 acres	None	None	110 acres
BE Bench	None	None	None	None
PI Pits	None	None	None	None
GO Gobs	1 acre	None	None	1 acre
SL Slurry	None	None	None	None
HR Haul Roads	None	None	None	None
MO Mine Openings	None	None	None	None
SP Slump	None	None	None	None
H Highwalls	None	None	None	None
EF Equipment and Facilities	None	None	None	None
DP Industrial/Residential Waste	30 acres	None	None	30 acres
WA Water Problems	10 GPM	None	None	10 GPM

¹ AMLIS Keyword

² A "snapshot" of the status at the beginning of the year

³ PAD additions, by keyword, during the year

⁴ Reclamation accomplishments-GPRA requirement

⁵ A "snapshot" of the status at the beginning of FY99

CHART #3
NORTH DAKOTA
COMPLETED PROJECTS
October 1, 2001 to September 30, 2002

Project Name	Project Cost	Economic Impacts	Environmental Benefits
2001 Beulah/Zap Phase V Pressure Grouting	\$314,840.40	Income: \$ 6 million Employment: 26	Subsidence Prevention
2001 Lehigh Road Phase VI Pressure Grouting	\$275,395.50	Income: \$.5 million Employment: 23	Subsidence Prevention
2001 Noonan A (6)	\$258,794.80	Income: \$.5 million Employment: 22	Dangerous highwalls
2001-2002 Sinkhole Filling-maintenance	\$80,392.54	Income: \$.16 million Employment: 7	Subsidence Reclamation
Noonan Planting Project	\$6,300.00	Income: \$.01 million Employment: 2	Tree Plantings
Haynes Maintenance	\$9,000	Income: \$.02 million Employment: 2	Subsidence Reclamation
2001 Lehigh Emergency Project	\$32,076.00	Income: \$.06 million Employment: 3	Subsidence Reclamation
2002 Beulah Coal Fire Emergency	\$1,527.50	Income: \$.002 million Employment: 2	Surface Burning

* expressed in millions

Chart # 4
**NORTH DAKOTA
 EMERGENCY PROJECTS**

State	Project Name	Investigation Date	Notification Date to CFO	CFO Response Time (days)	Reclamation Cost	Const. Start Date	Completion Date
North Dakota	2001 Lehigh Emergency Project	10/11/2001	10/11/2001	Same Day	\$32,076.00	10/12/2001	10/15/2001
North Dakota	2001 Beulah Coal Fire Emergency Project	1/10/2002	1/10/2002	1/11/2002	\$1,527.50	1/15/2002	1/16/2002