



DIVISION OF
**MINERAL RESOURCES
MANAGEMENT**
OHIO DEPARTMENT OF NATURAL RESOURCES

ANNUAL REPORT

2045 MORSE RD
COLUMBUS, OH 43229
ohiodnr.gov

2023





ON THE COVER:

Completed Willowbrook Tipple Project in Coshocton County which demolished this dangerous dilapidated 3-story coal processing building (pictured) and 4 other small structures.

COMMENTS FROM THE CHIEF



2023 was a productive and successful year for the Division of Mineral Resources Management, as you will see in this annual report. Staff worked diligently to keep miners safe, to reclaim hazards left behind from abandoned mine lands, and ensure timely permitting and reclamation of industrial minerals and coal mining sites throughout the state.

Change is constant and the Division's annual report has changed significantly this year. We have streamlined information to highlight the most critical work and unique aspects of each of our four main programs: Abandoned Mine Lands (AML), Coal mining regulation, Industrial Minerals (IM) mining regulation, and Mine Safety. During the year, Division personnel responded to hundreds of citizen complaints dealing with blasting at mine sites, water supply or quality issues, and abandoned mine land issues. Staff complete timely and thorough site inspections, records review, or further testing to fully investigate complaints.

Mine Safety staff conducted 549 safety inspections and trained over 5,000 miners and contractors to make them aware of the potential dangers on active mine sites, conducted mine rescue training, and strengthened CPR/First Aid skills of Ohio's miners. The program again won the Interstate Mining Compact Commission's National Mine Safety and Health Training Award for training materials used to train Ohio's metal/non-metal surface miners.

Mining in Ohio occurs in all counties and provides significant resources for construction and development, transportation, energy, and more. Staff conducted over 2,900 mine regulatory compliance inspections for permitted mines in Ohio and over 2,300 acres were reclaimed by mining operators in 2023.

The AML Program continues to grow with increased federal funding. Most notable in 2023 was the program winning the national reclamation award by the Office of Surface Mining Reclamation and Enforcement for the Friendship Park Highwall Reclamation project in Jefferson County. This unique project not only reclaimed legacy AML features, it improved wildlife habitat and increased recreational opportunities at the park for locals and visitors to the area. Staff also put out 22 projects for bid in 2023 totaling nearly \$14 million. In addition, the AML Economic Revitalization program, in its seventh year, awarded \$10 million to six projects in five different counties. This program has made significant impacts in providing funds to coal impacted communities for economic development and community improvement projects. Lastly, \$3 million in H2Ohio Rivers funding from the legislature was dedicated to address acid mine drainage, which will provide additional funds to improve water quality in several impacted watersheds.

Each year presents its own unique challenges and opportunities, 2023 was a banner year for capitalizing on those opportunities and continuing to protect natural resources in Ohio, keeping miners safe, and improving the environment and economy in abandoned mine areas. The Division is well prepared to handle the challenges in 2024 as well as capitalize on the opportunities in 2024 with such a dedicated staff and the resources provided by federal and state funding.

Sincerely,

A handwritten signature in black ink, reading "Benny K. McCament", with a long horizontal flourish extending to the right.

Benny K. McCament, Chief
Ohio Department of Natural Resources (ODNR)
Division of Mineral Resources Management

MINERAL RESOURCES



Mining activities at Melvin Stone located in Greene County (permit number IM-2052).

The Division of Mineral Resources Management is charged with regulating coal and industrial mineral mining in Ohio while also protecting the public, miners, and the environment. The division's mission is to provide for the safe and environmentally sound development and restoration of mineral and fossil fuel extraction sites.

MINERALS BY THE NUMBERS



2,371
ACRES OF
MINE LAND
RECLAIMED



24
ABANDONED
MINE LAND
PROJECTS
COMPLETED



549
MINE SAFETY
INSPECTIONS



2,984
TOTAL
COAL AND
INDUSTRIAL
MINERAL SITE
INSPECTIONS



5,096
MINERS
TRAINED
IN HEALTH
& SAFETY
PROGRAMS



\$62M
IN GRANTS
& FUNDING
AWARDED TO
AML PROGRAM



\$10M
AWARDED
TO 6 AMLER
PROJECTS

The Annual Report that follows contains major highlights of 2023, as the Division of Mineral Resources Management focused on the regulatory and environmental responsibilities of its varied and complex mission.

The staff worked to accomplish the following goals:

- Strive to strike a balance between environmental conservation, protection of the public health and safety, and Ohio's need for reliable, affordable energy and mineral resources.
- Regulate coal and industrial minerals mining in every Ohio county.
- Protect and conserve lands and waters by preventing negative mining impacts and requiring restoration as needed through enforcement.
- Assist citizens and communities with restoration of lands and waters severely degraded by pre-law mining activities.
- Respond to and investigate abandoned mine land emergencies and develop and implement construction plans to eliminate dangers. Support efforts to extinguish threats to the public or environment caused by mine emergencies.
- Protect miners and prevent mining accidents through inspection, mine rescue support, safety training, and knowledge and skills testing.
- Educate and inform Ohio's citizens about the Division's role in responsible development of mineral and energy resources, conservation of the environment and protection of the public interest.

More information about the Division's diverse programs is available online at minerals.ohiodnr.gov.

Abandoned Mine Land Program



Serious public health and safety problems and environmental concerns exist with surface and deep coal mining that occurred prior to the reclamation standards used today. These problems are addressed through the design and construction of reclamation projects.

Ohio's Abandoned Mine Land (AML) Program was awarded over \$62 million through grants

- AML Fee Based Grant = \$3,924,880
- Infrastructure Investment and Jobs Act Grant = \$46,421,486
- AML Economic Revitalization Grant = \$11,739,334

22 Reclamation projects bid for construction through the AML Program totaling \$13,999,482

- 24 Reclamation projects completed in 2023 totaling \$7,753,830
- 38 Consultant service contracts issued totaling \$9,155,435 for services in engineering, ecological, mapping, surveying, geotechnical, cultural resources, construction and inspection

The STREAMS Act amendment was added to the Infrastructure Investment and Jobs Act funding that allows states the ability to set-aside up to 30-percent of their annual Bipartisan Infrastructure AML grant amount in a long-term AML reclamation fund established under State law. This gives Ohio's AML program the ability to abate the causes and treatment of acid mine drainage (AMD) resulting from coal mining practices, including for the costs of building, operating, maintaining, and rehabilitating AMD treatment systems.

- Awarded \$3 million in H2Ohio funds for treatment and abatement of Acid Mine Drainage



AML Problems Abated in 2023

- 9,907 linear feet of dangerous highwall reclaimed
- 94.5 acres of spoil area reclaimed
- 17 mine subsidence sinkholes and vertical openings stabilized
- 10 hazardous equipment and facilities eliminated
- 6 open mine portals closed
- 13 projects contracted to construct \$5,552,846 in reclamation projects

Shugert North Reclaim Project (Belmont County) was designed in 2023. Plans involve backfilling 2.5 miles of dangerous highwall. Work will be performed by a coal mining company working adjacent to this land pursuant to ORC 1513.27.



Sizemore Gob Fire Emergency Project (Lawrence County) is one of 11 emergency projects completed in 2023.



ABANDONED MINE LAND ECONOMIC REVITALIZATION (AMLER) PROGRAM

In 2017 the Abandoned Mine Land Economic Revitalization (AMLER) Program was authorized by Congress under the Consolidated Appropriations Act, 2017 (Public Law 115-31) and provides \$10 million of US Treasury funds to Ohio's AML program. The funds are to be used "for the reclamation of abandoned mine lands in conjunction with economic revitalization and community development and reuse goals."

Ohio has received an additional \$10 million in AMLER Program funding as part of the 2018, 2019, and 2020 federal budgets; and an additional \$25 million in 2021 and \$10.652 million in 2022 for a total of \$75.652 million in program funding.

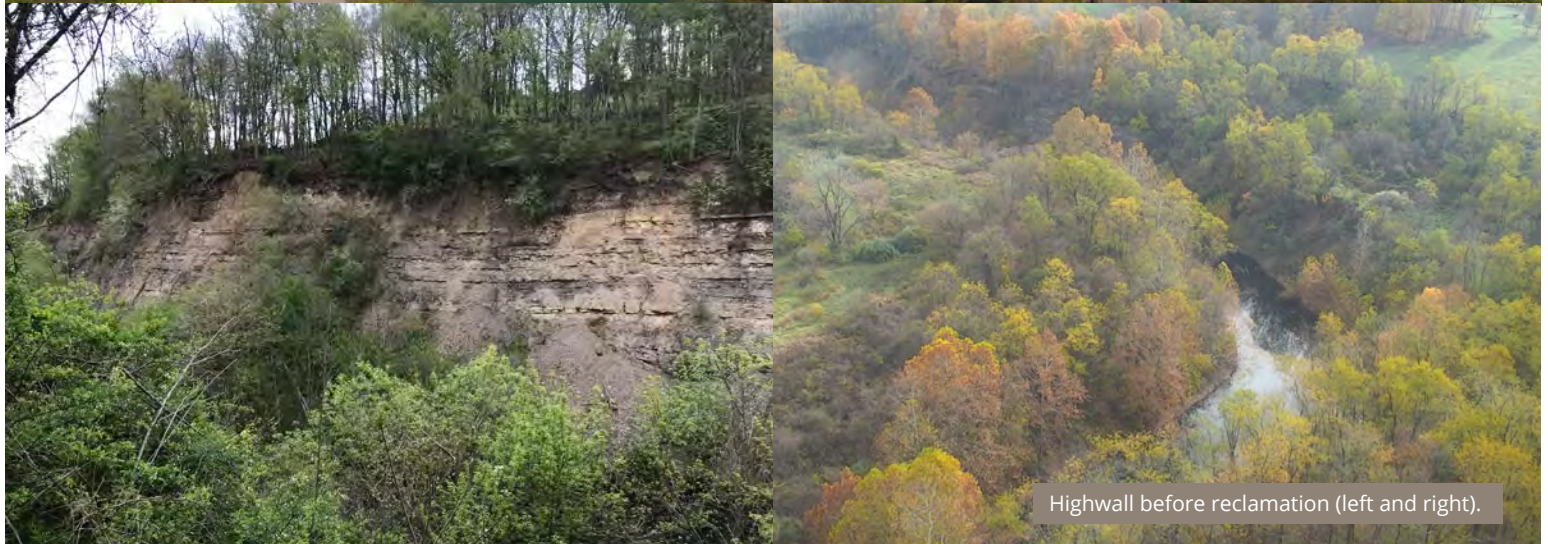
The types of projects selected for AMLER funding include expansion of recreational opportunities such as bike trails, rails to trails, hiking trails, hunting and camping opportunities. Other projects focus on industrial or commercial site development.

- 32 projects awarded in 16 counties
 - 14 completed projects
 - 5 projects under construction
 - 13 projects in development
- \$68.1 million awarded since inception
 - \$10 million awarded to 6 projects in 2023:
 - An airport hangar (Akron Canton Airport Authority)
 - 2 park and trail projects (City of Jackson and City of New Philadelphia)
 - An RV Park near a previous AMLER sports complex project (City of Wellston)
 - Repairs and improvements to a public boat dock (City of Zanesville)
 - Reclamation, park improvements, triplexes, day care and workforce development (Survivor Advocacy Outreach Program)

FRIENDSHIP PARK HIGHWALL PROJECT

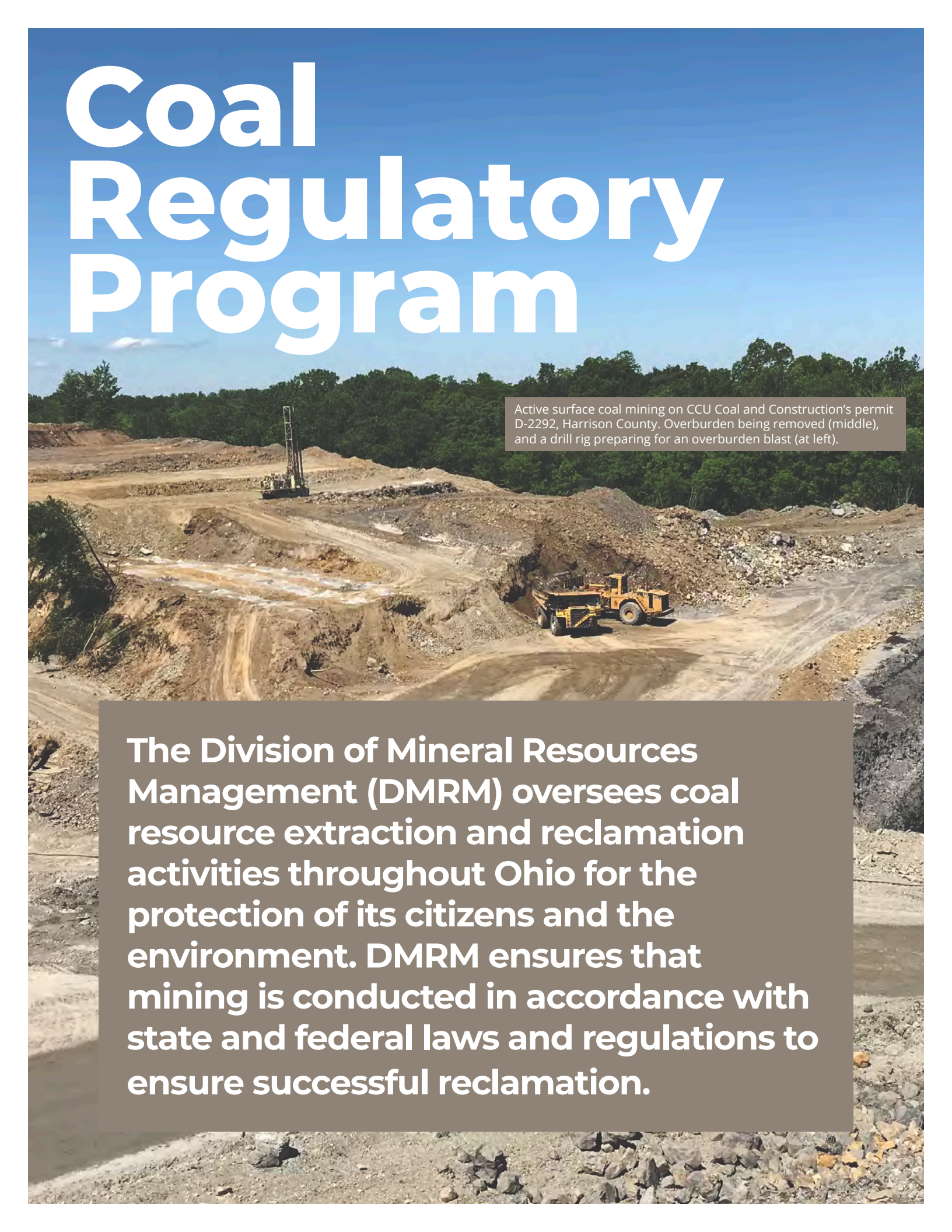
The Friendship Park Highwall Project located in Jefferson County was awarded the National Award from the Office of Surface Mining Reclamation and Enforcement (OSMRE) recognizing the project as the highest-rated reclamation project.

The project converted 27.5 acres of unusable land into open safe space, created wetlands, natural stream channels, new trails, reforestation, bat habitat, and native pollinator plots.



Highwall before reclamation (left and right).

Coal Regulatory Program

The background image shows an active surface coal mining site. In the middle ground, a large yellow haul truck is parked on a dirt road. To the left, a tall drill rig is visible. The site is surrounded by a dense line of green trees under a clear blue sky. The foreground shows a pile of dark coal and some lighter-colored rock or overburden.

Active surface coal mining on CCU Coal and Construction's permit D-2292, Harrison County. Overburden being removed (middle), and a drill rig preparing for an overburden blast (at left).

The Division of Mineral Resources Management (DMRM) oversees coal resource extraction and reclamation activities throughout Ohio for the protection of its citizens and the environment. DMRM ensures that mining is conducted in accordance with state and federal laws and regulations to ensure successful reclamation.

Regulatory responsibilities include a complex permitting program, and proactive inspection and enforcement ensuring reclamation of surface lands.

DMRM also works with the coal industry to encourage remining of abandoned mine lands in need of reclamation which still contain valuable coal resources. Operators can identify previously mined and unreclaimed sites, economically mine the remaining coal, and finish with a reclaimed site.



PERMITTING & BONDING

Staff perform detailed and thorough reviews of each application for a coal mining and reclamation permit to ensure that environmental impacts are minimized, all necessary environmental safeguards are in place, and that all statutory requirements are met during the permitting process.

A current estimated cost of reclamation is required to be maintained on each permit. Performance security in the form of a surety bond, certificate of deposit, letter of credit, or cash must be posted to ensure adequate funds are available to reclaim the site and remediate adverse environmental impacts in the event performance security is forfeited.

- 7 adjacent and/or incidental applications approved, 196 coal acres added
- 35 permit actions issued to renew, revise, transfer existing permits
- \$1,066,250 invoiced in performance security to coal applicants/permittees

INSPECTION & ENFORCEMENT

Division inspectors are required to regularly inspect mining operations to monitor active mining and reclamation to enforce permit compliance during the life of permitted operations and that operators restore mined lands to productive uses.

Inspections are focused on the risk of environmental or public health and safety concerns on both active and inactive mine sites including but not limited to prevention of off-site impacts, water quality and quantity monitoring, and impacts to surface features from underground mining.

- 100% of required inspections completed
- 1,213 coal mining inspections conducted
- 5 mining-related public complaints investigated
- 1 private water supply complaint investigated
- 8 enforcement actions issued
- 75 bond-reclamation release inspections conducted
- 1,901 acres reclaimed

POTENTIAL AFFECTED MINE REVIEW

When proposed oil and gas well locations fall within a coal bearing township, DMRM reviews those well applications for potential coal mine safety issues. Review findings and notification are provided to appropriate ODNR divisions and mine operators.

- 360 oil and gas well applications reviewed for affected mine safety issues
- 5 underground injection (UIC) disposal well applications reviewed



B&N Coal surface coal mine permit D-2332, Noble County - A sediment pond (foreground) sits below a haul road to an active highwall with a drill rig (background) preparing to blast.



Industrial Minerals Regulatory Program

The background of the entire page is a photograph of a large-scale industrial mining operation. In the foreground and middle ground, there are large, terraced piles of light-colored sand and gravel. A yellow front-end loader is positioned in the center-right, dumping its load into the bed of a yellow articulated dump truck. Another dump truck is visible further back. The background shows more of the quarry's terraced walls under a hazy, overcast sky.

Permitted since 1977, American Aggregates Corporation permit IM-0379 is an open-pit sand and gravel operation in Greene County.

The Division regulates the surface mining of Ohio's non-fuel minerals, also known as industrial minerals (IM), and ensures compliance with mining laws for reclamation requirements through permitting, bonding, inspection, and enforcement functions.

Various surface mining methods are used to extract Ohio's mineral deposits of limestone and dolomite, sand and gravel, salt, sandstone and conglomerate, shale, and clay.

An IM permit has a term of 15 years, with the option to apply for renewal at the end of the term. Underground extraction of industrial minerals does not require a surface mine permit but is regulated for miner safety.

PERMITTING & BONDING

Persons or companies wanting to mine industrial minerals for commercial purposes must first obtain an approved IM surface mining permit from DMRM. Each application is completely and thoroughly reviewed by division experts. Permit applications must meet strict requirements and provisions designed to protect the public and environment during extraction of the IM resources and ensure reclamation of the lands after mining.

A performance bond in the form of a surety bond, certificate of deposit, letter of credit, or cash must be posted to provide funds for reclamation of a mine site if an operator fails to complete reclamation. Proof of public liability insurance is also required prior to the start of mining.

- 455 new acres permitted (6 new, 12 amended permits)
- 183 permit actions reviewed and approved (modifications, renewals, transfers)
- \$527,550 performance bond invoiced
- 33 bond releases processed
- 470 acres reclaimed/achieved final bond release



GROUNDWATER HYDROLOGY MODELING FOR DEWATERING PERMITS

To minimize impacts to groundwater that may result from surface mining operations, IM permit applicants are required to submit a groundwater hydrology model for review when IM applications include plans to dewater or deepen an existing IM permit. The Division's review and/or completion of groundwater models is done in coordination with ODNR Division of Geological Survey.

- 2 groundwater modeling reports reviewed/approved
- 2 groundwater models completed by ODNR at operator's request

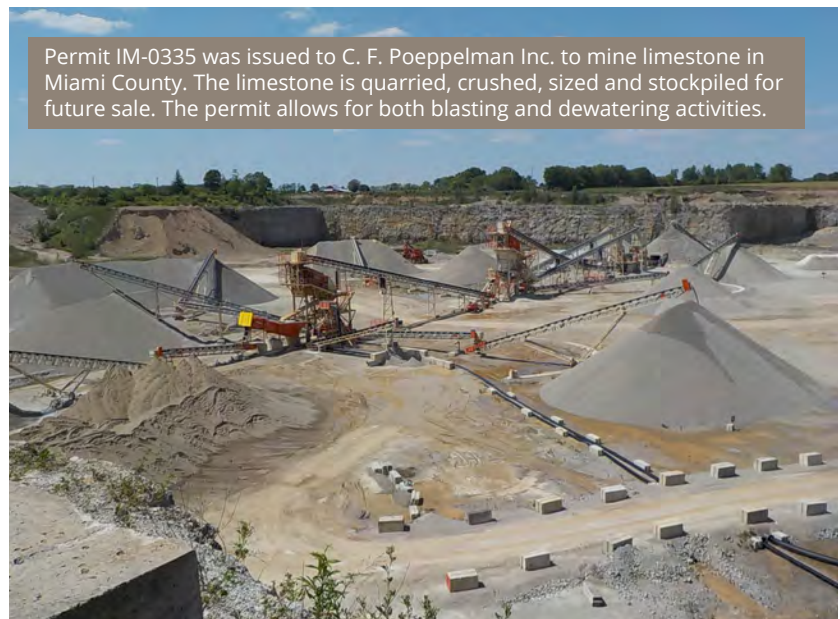
BLASTING PROGRAM

DMRM is responsible for regulating the environmental effects of blasting at surface mines and quarries. It currently has 30 seismographs used for pro-active monitoring, complaint investigations, and special studies.

Staff reviews the blasting plan section of mining permit applications; processes citizen requests for pre-blast surveys; conducts seismographic monitoring of blast vibrations outside houses near mining operations; and investigates citizen blasting complaints concerning ground vibration, airblast, flyrock, and alleged damage to structures.

All surface blasting operations in coal and industrial minerals mines must be conducted by a certified blaster. DMRM coordinates Ohio's blaster certification program for individuals seeking this certification.

- 11 blasting complaints regarding annoyance or alleged damage were investigated
- 31 homes monitored for blast vibration levels
- 36 applications for blaster certification reviewed
- 32 blast plans reviewed



Permit IM-0335 was issued to C. F. Poeppelman Inc. to mine limestone in Miami County. The limestone is quarried, crushed, sized and stockpiled for future sale. The permit allows for both blasting and dewatering activities.

INSPECTION & ENFORCEMENT

Division inspectors are required to inspect all IM mining operations annually and monitor mining and reclamation activities throughout the term of the permit. Operations with a higher risk are inspected more frequently than operations posing less risk. Proactive inspections ensure compliance with the approved permit, protect the public and environment from adverse impacts, and that operators restore mined land to productive uses.

- 1,771 IM mine site inspections conducted
- 48 IM complaints investigated
- 19 IM surface mining enforcement orders issued (blasting violations, delinquent fees, permit boundary limits)
- 554 IM mine sites monitored across the state



The National Lime and Stone Company permit IM-0168 (Marion County) includes the successful relocation and reconstruction of an existing stream located within the permit area. Permitted mining methods include both open pit and quarry operations.

Mine Safety Program



A mine rescue team practices proper technique for fire hose use and handling at the Mine Safety Training Center in Harrison County.

Ohio's Mine Safety Program promotes safe mining practices through four major program services: mining inspections and safety audits, mine rescue, certification testing of mining officials, and the safety training of miners.

Mine safety laws are established to protect miners and the mines in which they work during the extraction of resources.

DMRM's Mine Safety inspectors and Mine Rescue operations coordinators possess vital agency and industry experience necessary to positively interact with miners, and influence safety performance and behavior among miners and mine operators.

MINE FACILITY SAFETY INSPECTIONS AND AUDITS

Safety inspections play a vital role in reducing mining accidents or mining fatalities. Mine safety law requires that DMRM inspect all underground coal and IM mines, all surface coal mines and investigate mining accidents. DMRM also conducts non-regulatory safety audits at surface IM operations.

- 549 total mine safety inspections conducted
- 442 coal and IM mine safety inspections conducted (345 regular, 97 re-inspections)
- 107 IM mine safety audits conducted

MINE RESCUE TRAINING & OPERATIONS

DMRM provides underground mine rescue teams with rescue training and support operations. The Mine Safety Training Center in Harrison County is one of three mine rescue stations strategically located in Ohio with equipment to support rescue teams' response to a mine emergency incident. The Center provides a fully functional mine emergency simulator and hosts mine safety competitions through the year.

Rescue operation training tests the knowledge and technical skills of mine rescue teams, and emergency response and preparedness. An underground mine cannot operate without

coverage provided by certified mine rescue teams. Local and regional underground mine rescue training competitions are conducted annually. In 2023, DMRM conducted its first emergency response training for regional underground IM rescue teams.



As part of Ohio Mine Rescue training, rescue team members work through a first aid scenario, performing a rapid victim assessment prior to treating major injuries.

SAFETY TRAINING & CERTIFICATION TESTING

Miner safety training and certification testing is critical to improving the health and safety of Ohio miners and the working conditions in the mines. To reduce fatalities, accidents, and mining-related illnesses, DMRM trains miners and contractors in ways to recognize and respond to hazards, and to address health and safety concerns. Mine workers are trained in a variety of areas including first aid, CPR, mine electrician, new miner and annual refresher courses, and certification programs.

- 5,096 total miners, mine supervisors, inspectors and contractors were trained
- 4,527 miners trained in safety and certification courses
- 107 miners trained in mine electrician annual refresher courses
- 462 miners trained in Part 49 mine rescue

Certification is an essential part of promoting and maintaining the safety and productivity of Ohio's mining community. DMRM conducts safety certification testing for a variety of key underground and surface mining positions. Structured examinations mandated by state and federal law serve to ensure that the applicant possesses the necessary applicable mining experience and has acquired the skill and knowledge to be certified to work in these important positions.

- 100 miner applicants successfully certified out of 112 tested



A miner learns life-saving CPR skills during a New Miner (Part 48A) training class for underground miners.



Nationally recognized training materials are developed annually by the Mine Safety Program to be used in required safety courses.



Mine rescue team members navigate a field exercise, checking for a safe route. Teams regularly sharpen responsiveness and skills through simulated mine emergency scenarios and testing.