

2017 ANNUAL REPORT

U.S. Department of the Interior
OFFICE of SURFACE MINING
RECLAMATION and ENFORCEMENT



Celebrating 40 years of the *Surface Mining Control and Reclamation Act (SMCRA)*!



PEOPLE



ENERGY



ENVIRONMENT

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Cover Images:

Group observes reclaimed section of an active mine.



The Office of Surface Mining Reclamation and Enforcement (OSMRE) balances the nation's need for continued domestic coal production with protection of the environment.



A naturally restored stream flows within the reclaimed section of an Indiana coal mine.



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ABOUT THE Office of Surface Mining Reclamation and Enforcement

The creation of the Office of Surface Mining Reclamation and Enforcement (OSMRE) grew from the need to restore America's landscape to productive use after years of historic coal mining operations that left behind impacted and abandoned mine lands. In enacting the Surface Mining Control and Reclamation Act of 1977 (SMCRA), Congress created OSMRE and mandated that it work closely with states and tribes to implement the surface mining laws. SMCRA embodies cooperative federalism, establishing Federal-State cooperation as its cornerstone. Under SMCRA, States can gain primacy and exercise "exclusive jurisdiction" over surface coal mining and reclamation operations within their borders, subject to OSMRE's oversight, by adopting laws and OSMRE-approved regulatory programs that demonstrate their capability and willingness to carry out SMCRA's requirements.

OSMRE regulates coal production and reclamation (including reclamation of abandoned mines), or authorizes states and tribes with approved active surface and underground coal mines regulatory and reclamation programs to perform those responsibilities. With this authority, states and tribes regulate about 97 percent of the nation's coal production and complete over 90 percent of the abandoned mine lands abatement work.



Cloud Peak's Antelope, Cordero Rojo and Spring Creek mines helped build new shrub habitat in semi-arid climates.

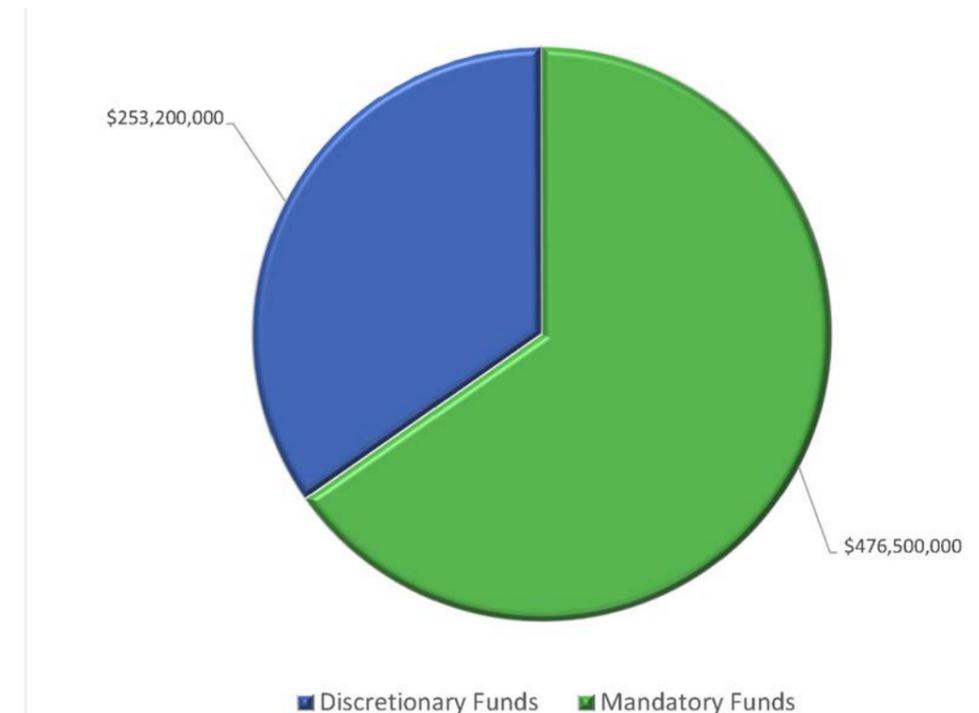
Mission Statement

The mission of OSMRE is to carry out the requirements of SMCRA in cooperation with states and tribes. OSMRE's primary objectives are to ensure that coal mines are operated in a manner that protects citizens and the environment during mining and assures that the land is restored to productive use following mining, and to mitigate the effects of past mining by aggressively pursuing reclamation of abandoned coal mines.

Fiscal Year 2017 Budget and Workforce at a Glance

- \$253.2 million in discretionary funds
- \$476.5 million in mandatory funds
- 431 full-time equivalent employees
- Headquartered in Washington, DC with three Regional Offices

To learn more about OSMRE's historical budgets, please visit www.doi.gov/budget/appropriations/.



Abandoned Mine Land Program

www.osmre.gov/programs/aml.shtm

The Abandoned Mine Land Program addresses environmental and public safety hazards on pre-SMCRA mine sites. In Fiscal Year (FY) 2017, the program made more than \$180 million in grants available to states and tribes.

Total AML Grants FY 2017: \$180.9 million

Regulatory Program

www.osmre.gov/programs/RCM.shtm

OSMRE's Regulatory Program implements SMCRA and sets administrative and technical standards, performs oversight of State regulatory programs, administers regulatory programs in States that do not have their own, and provides assistance to State regulatory programs. In FY 2017, the Bureau's Regulatory Program made available \$68.4 million in regulatory grant funding to State and Tribal regulatory authorities.

Total Regulatory Grants FY 2017: \$68.4 million

Technology Development and Transfer

www.osmre.gov/programs/TDT.shtm

OSMRE's Technology Development and Transfer Program provides technical support, assistance, training, and technology transfer for OSMRE's Abandoned Mine Land (AML) and Regulatory Programs. In Fiscal Year 2017, the Technology Development and Transfer Program received \$18.7 million of which \$15.2 million was provided in regulation and technology funds and \$3.5 million was allotted in AML funding.



West Virginia Department of Environmental Protection employee shows different soils along a stream impacted by acid mine drainage.

OSMRE Celebrates 40th Anniversary

On August 3, 2017, Deputy Secretary of the Interior David Bernhardt joined OSMRE employees and guests at a ceremony marking the 40th Anniversary of the enactment of the surface mining law that established OSMRE..

“Both the surface mining law and the Office of Surface Mining have had a huge impact on the quality of life for millions of people across our country, especially the citizens of Coal Country” said Deputy Secretary Bernhardt. “There’s no question that coal mining has built the American Dream for countless families in this country. Entire towns have been built around the mines, supporting good-paying jobs and powering the United States.”

OSMRE 40th anniversary events took place at its national headquarters as well as in its three regional offices in Pittsburgh, PA, Alton, IL, and Denver, CO.

“OSMRE takes great pride in knowing

that the work we do touches American lives every day,” said Acting Director Glenda Owens. “With the surface mining law and the work of our dedicated staff, there is no doubt that our nation’s lands and water are in far better condition both during and after coal mining.”

Under the AML program, OSMRE has distributed more than \$5 billion in grants to states and tribes from the Abandoned Mine Land Fund. Over the past 40 years, the AML program has directly contributed to closing more than 43,000 abandoned underground mine shafts and openings; eliminating nearly 1,000 miles of dangerous highwalls; and restoring over 35,000 acres of streams and land.

OSMRE’s efforts have also led to a broadening of mining technology and successes through outreach and partnerships with colleges and universities. These and other partnerships have resulted in successful reclamation, reforestation, and use of land for commercial, industrial,



OSMRE leadership visits an active mining site in Illinois.



An OSMRE forester explains the proper tree planting technique to volunteers at an Appalachian Regional Reforestation Initiative event.

“Coal mining has built the American Dream for countless families in this country.”

residential, recreational, agricultural, and forestry purposes, among them reestablishment of critical wildlife habitats.

OSMRE also continues to leverage the latest science and technology through its National Technical Training Program (NTTP), Technology Development and Transfer, and Technical Innovation and Professional Services (TIPS) programs. These programs provide resources for technical assistance, training, and technology development and enhancement of the technical skills that states and tribes need to effectively administer their regulatory and reclamation programs under SMCRA.

The Bureau’s development of water treatment

software, AMDTreat, helps States and communities estimate costs and effectively develop plans to eliminate acid mine drainage. Leveraging new technology, the Bureau uses mobile devices, a geographic information system (GIS), light detection and ranging (LiDAR), and unmanned aerial vehicles (UAVs) to map abandoned mine lands and increase the efficiency of inspections.

Through the Appalachian Regional Reforestation Initiative (ARRI), the Bureau works with States, universities, industry, and communities to promote the forestry reclamation approach to reclaiming mine lands. As a result, the American chestnut tree, once close to extinction, is now growing in its natural habitat.

For 40 years, Bureau staff have worked tirelessly to balance the health and safety of the American people and protection of the Nation’s environment from the adverse effects of surface coal mining operations with the production of U.S. energy.



Deputy Secretary of the Interior David Bernhardt addressing the staff of OSMRE in the South Interior Building.



Reflection: 40 Years of the Surface Mining Control and Reclamation Act

The year is 1977. America’s love for all things polyester is in full bloom, and the world is introduced to a “galaxy far, far away.” While Han and Chewie are saving the galaxy in cinemas across the land, politicians, industry, advocacy groups, and communities are hashing out a way to protect people and the environment and meet the country’s need for energy.

The memory of February 26, 1972, was still fresh in their minds. That was the date residents along Buffalo Creek in West Virginia suffered one of the State’s worst disasters.

A refuse dam at a coal preparation facility collapsed and unleashed over 100 million gallons of water. The flood killed 125 people, injured 1,100, and left more than 4,000 homeless.

The Buffalo Creek Disaster inspired legislation to establish Federal standards for coal mining and reclamation after the mining ended, assess a fee on current coal mining to fund reclamation of mine lands abandoned before 1977, and create an agency to oversee the execution of the law.

On August 3, 1977, President Jimmy Carter signed the Surface Mining Control and Reclamation Act of 1977 (SMCRA) into law. At the signing ceremony, President Carter said, “I’m very proud of the good work that all of you have done, the fine and very courageous stands that the Members of the House and Senate have taken. And it’s with a great deal of pleasure that I, as President of our beautiful country, sign into law the Strip Mining Act, House Resolution 2, which will provide for the protection of our country in the future.”

Fast forward 40 years: Polyester’s heyday is a faded memory and stories from “a galaxy far, far away,” are still playing out across cinemas. Most importantly though, OSMRE’s work under SMCRA continues.



Trees grown on reclaimed mine lands used as part of the National Christmas Pageant of Peace at an Appalachian Regional Reforestation Initiative (ARRI) event.

Top left: Deer traveling across reclaimed mine lands. Top right: President Carter signs into law the Surface Mining Control and Reclamation Act on August 3, 1977. Middle left: A reclaimed waterway. Middle right: An inspector surveying a settlement pond. Bottom left: Man planting as part of reclamation activities. Bottom right Active reclamation at the Freedom Mine in North Dakota.

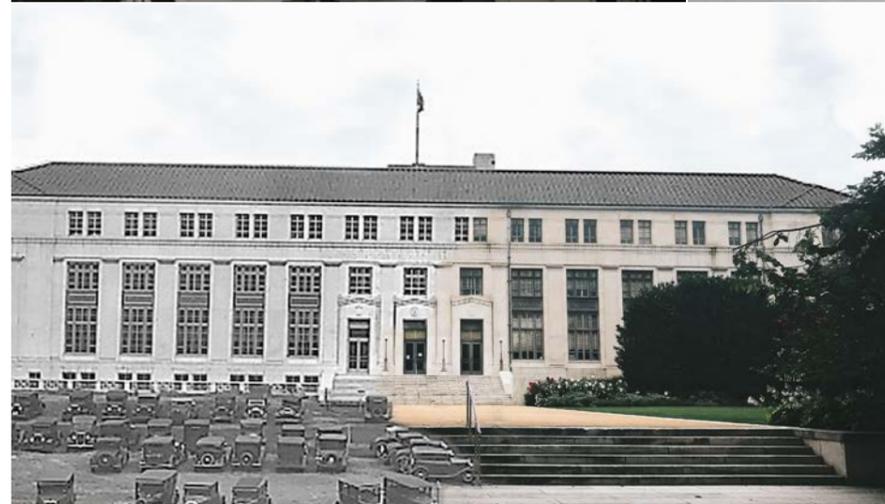
OSMRE Moves to New Headquarters

After 40 years at the South Interior Building (SIB), OSMRE moved its headquarters across the street to the Main Interior Building.

Constructed in 1932 as the Public Health Building, the SIB has a fascinating past that includes teepees and tennis courts, a plot to defeat Hitler's forces in Europe, and plans for the construction of the first atomic bomb.

Original construction plans for the SIB began in 1931 - before the wide lanes of Constitution Avenue covered over what was then called "B" Street. Before construction started, the site had many uses. The Army's Quartermaster kept his horses in stables along the 19th Street side of the lot; on B Street was a YWCA cafeteria. The glassed-in porches at the back of the YWCA building overlooked an expanse of tennis courts, a clubhouse, and a snack bar.

In December 1941, the heads of Great Britain's military staff and the United States Joint Chiefs of Staff were united under the designation "Combined Chiefs of Staff." So that the closest possible communications could be maintained between London and Washington, it was decided that representatives of the British Chiefs of Staff should remain in Washington and confer daily with the United States Chiefs of Staff. An announcement by President Roosevelt followed on January 30, 1942, saying the Public Health Service Building



Top: The Combined Chiefs of Staff meet in an office of the South Interior Building. Bottom: Image of the South Interior Building in 1933 (left) and 2017 (right).

Top left: The Office of the Director at the South Interior Building in the 1930s (left) and in 2017 (right) Top right: View of the South Interior Building from OSMRE's new headquarters at the Main Interior Building. Bottom left: The foyer of the South Interior Building in the 1940s (left) and in 2017 (right). Bottom right: Hallway of the South Interior Building lined with boxes as part of the move to the Main Interior Building.

was to be renamed the Combined Chiefs of Staff Building. It was here that the British representatives met regularly with the United States Chiefs of Staff, most of whom had offices in the Navy buildings across Constitution Avenue.

Later, the Combined Chiefs of Staff Building was the site of the planning for the Manhattan Project, which developed the atomic bomb. The preparation was done in a temporary wooden structure atop the two-story center wing of the Building. The Manhattan Project was so important that the building was sealed, and sharpshooters maintained around-the-clock vigil to guard it.

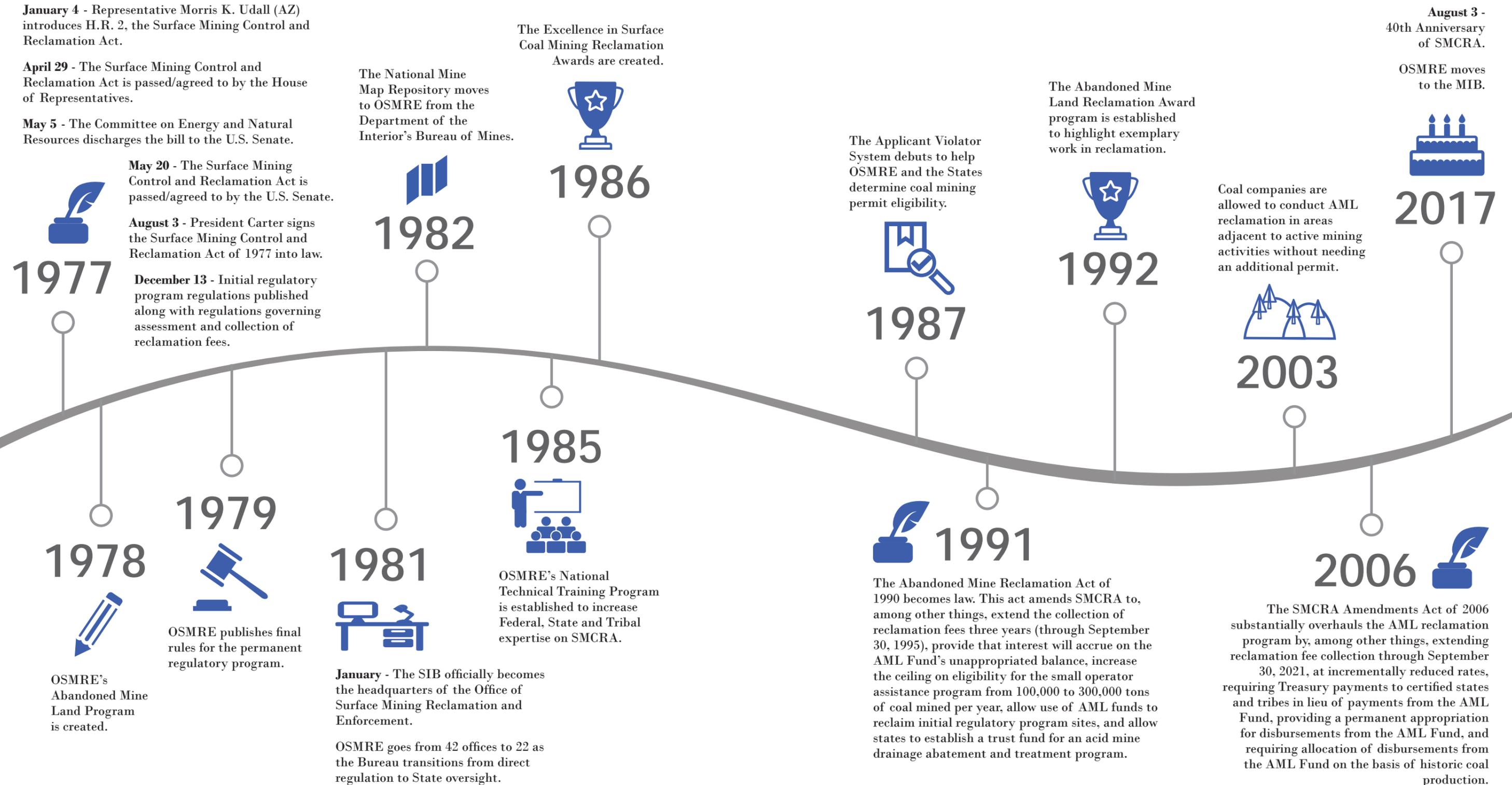
Fast-forward to November 3, 1972. A week before the Presidential election, a group of Native American Indians barricaded themselves inside the building in an attempt to make their concerns known to the government. For seven days teepees covered the front lawn, manned by some of the protesters made up in war paint and brandishing spears. When the Indians finally left, the building was standing; but, its interior was in shambles. Although it took a long time to restore order, no serious structural damage had been done.

In 1977, the building became the home of newly formed OSMRE. Shortly after OSMRE moved into the building, the temporary Manhattan Project structure on the roof was demolished, much to the disappointment of preservationists.

In January 1981, when restoration work was completed, the building officially became the headquarters of the Office of Surface Mining Reclamation and Enforcement.

While OSMRE may no longer reside in the SIB, its memories will always live in the building's rich history.

OSMRE Timeline



Abandoned Mine Land PROGRAM

FY 2017 AML Funding for States and Tribes

Title IV of SMCRA requires OSMRE to address environmental, public health, and safety hazards posed by past mining practices, including water pollution, acid mine drainage, unstable or open mining areas, landslides, and subsidence of underground coal mines.

States and tribes may use AML funds to eliminate health, safety, and environmental problems caused by past mining practices and improve water quality by treating acid mine drainage.

Title IV provides the authority for OSMRE to assess a reclamation fee on coal production, and the fee provides most of the funding for the AML Program. In general, through SMCRA, Congress created the fee based on the mining method used to produce the coal as well as the mechanism to collect monies. SMCRA also prescribes the formula by which AML funding is distributed. The authority to collect AML Reclamation fees is slated to expire in 2021, unless it is reauthorized by Congress, as it was in 2006.

For complete information on the funding provided to states and tribes, the laws, regulations, and policies governing the AML Fund, OSMRE's projects and initiatives under the AML Program, and more, please visit www.osmre.gov/programs/aml.shtm.

The Abandoned Mine Land program saw some major accomplishments during FY 2017, and they include:

- Improved land and water health by reclaiming, or mitigating, the equivalent of 12,132 acres of land from the effects of natural resource degradation from past mining.
- Improved underground discharges of mine water, eliminating uncontrolled discharges, by employing horizontal boring techniques.
- Leveraged \$634,920 in partner funds for five new watershed cooperative agreements in three States (Iowa, Ohio, and Pennsylvania).
- Used civil penalty reclamation funds for three sites in Tennessee that were abandoned and left in an environmentally degraded state.
- Reclaimed one mine site abandoned and left unreclaimed by the permittee in Tennessee using a combination of performance bonds and civil penalty monies.
- The Federal Reclamation Program addressed one AML emergency and abated four Priority 2 hazards in Michigan, and addressed two AML emergencies in Washington.

State/Tribe	Distribution	State/Tribe	Distribution
Alabama	3,258,630	New Mexico	2,793,000
Alaska	2,793,000	North Dakota	2,793,000
Arkansas	2,793,000	Ohio	6,823,691
Colorado	2,793,000	Oklahoma	2,793,000
Illinois	12,315,001	Pennsylvania	33,555,249
Indiana	5,860,428	Tennessee	2,793,000
Iowa	2,793,000	Texas	1,582,341
Kansas	2,793,000	Utah	2,479,301
Kentucky	12,649,694	Virginia	3,809,523
Louisiana	115,020	West Virginia	23,250,487
Maryland	2,793,000	Wyoming	39,365,671
Mississippi	113,334	Crow Tribe	521,673
Missouri	2,793,000	Hopi Tribe	270,329
Montana	3,275,039	Navajo Nation	995,462

National Total is \$180,963,873

Celebrating 25 Years of Awards

The OSMRE National Abandoned Mine Land Reclamation Awards (AML Awards) began in 1992 following the success of the Title V Excellence in Surface Coal Mining Awards. The AML Awards give well-earned public recognition to those responsible for the nation's highest achievements in abandoned mine land reclamation.

Each year, OSMRE presents the following five AML awards:

- National Award
- Appalachian Regional Award
- Mid-Continent Regional Award
- Western Regional Award
- Small Project Award



The AML Awards are presented in partnership with the National Association of Abandoned Mine Land Programs.

2017's Best in Abandoned Mine Land Reclamation

The Abandoned Mine Land Reclamation Awards recognize outstanding abandoned mine land reclamation in the United States and showcase exemplary reclamation techniques. Only projects funded wholly or in part and completed by approved State or Tribal regulatory programs are eligible to win. A panel of judges composed of directors of State reclamation programs and OSMRE managers vote to determine the winners. Here are the 2017 winners:

<p>National Award Winner: Huling Branch AML Reclamation/ATV Recreation and Watershed Improvement Project, Pennsylvania</p>	
<p>Appalachian Regional Award Winner: Bell Central School HP AML Reclamation Project, Kentucky</p>	
<p>Mid-Continent Regional Award Winner: Sugar Ridge Fish and Wildlife Area 2 Project, Indiana</p>	
<p>Western Regional Award Winner: Madrid Low Impact Stormwater Project, New Mexico</p>	
<p>Small Project Award Winner: Hurricane Fork Gob Pile Project, Virginia</p>	

See more Abandoned Mine Land Reclamation winners at www.osmre.gov/programs/awards/AMLwinners.shtm.

OSMRE Releases Report on AML Pilot Projects

The Abandoned Mine Land Reclamation Economic Development Pilot Program (AML Pilot Program) for FY 2016 was first authorized by Congress under the Consolidated Appropriations Act, 2016 (Public Law 114-113) and enacted on December 18, 2015.

The law designated OSMRE to administer the AML Pilot Program and provided \$30 million of U.S. Treasury Funds to each of the three Appalachian State AML Programs (Kentucky, Pennsylvania, and West Virginia) that have the highest amount of unfunded coal-related problems that are classified as Priority 1 and Priority 2 abandoned mine land sites and inventoried in the Enhanced Abandoned Mine Land Inventory System (e-AMLIS). The AML Pilot Program funds were to be used “for the reclamation of abandoned mine lands in conjunction with economic and community development and reuse goals.”

The following year, Congress passed the Consolidated Appropriations Act (Public Law 115-31), and OSMRE again made funding available for projects in the AML Pilot Program for FY 2017. This time, the AML Pilot Program provided grants



Excavator working at the Ehrenfeld Coal Refuse Pile Reclamation Project in Cambria County, Pennsylvania.

to the six Appalachian States with the highest amount of unfunded Priority 1 and Priority 2 AML problems based on OSMRE’s AML inventory data as of September 30, 2016.

Under the 2017 law, the following states would each receive \$25 million: Kentucky, Pennsylvania, and West Virginia. Alabama, Ohio, and Virginia would each receive \$10 million in order to accelerate the remediation of AML sites with economic and community development end uses.

In March, OSMRE released a report on AML Pilot Program implementation actions.



Reclamation work to extinguish the Powderly Creek underground mine fire in Lackawanna County, Pennsylvania.

In the first year of the AML Pilot Program, OSMRE noted interest from public and private stakeholders and funders to align and expand the scope of economic and community development projects in conjunction with AML Pilot Program investment.

Each State AML program has been encouraged to collaborate with its respective State and local economic development authorities, planning organizations, and local communities to identify and fund projects with the greatest potential for economic development. OSMRE also encouraged States to work with local organizations engaged in comprehensive strategic community or regional development.

Read the entire report here:

www.osmre.gov/programs/AML/2016_Annual_Report_AML_Economic_Development_Pilot_Program.pdf

Regulatory PROGRAM

One of the purposes of SMCRA is to balance the nation’s need to protect the environment from the adverse effects of coal mining with the Nation’s need for coal as an essential energy source. The law directs the Bureau to establish, maintain, and update Federal standards that a State or Tribe must meet to administer its coal mining regulatory program. The Bureau also provides states and tribes with assistance and consultation needed for them to assume primary responsibility—or “primacy”—for regulatory activities under SMCRA. When States assume primacy, OSMRE transitions to an oversight role, ensuring that State agencies properly implement their regulatory programs. The Bureau retains the ability to review states’ actions and take direct action, including enforcement, where authorized and necessary to ensure states appropriately implement their programs. OSMRE is the regulatory authority for Federal Program States as well as on Indian lands. To date, no Indian Tribes have assumed primacy. For more information on the array of programs, initiatives, projects, and actions under OSMRE’s

Regulatory Program, please visit www.osmre.gov/programs/rcm.shtm.

The review of regulatory actions and inspections of mine sites remain among the most effective ways to determine if a State’s mining law is properly implemented. In FY 2017, states performed 25,420 complete and 38,977 partial mine inspections. OSMRE completed 595 partial and 429 complete inspections in its Federal and Indian Lands Programs.

Federal regulations require all active inspectable units under the permanent program to have four complete and eight partial inspections per year. Four complete inspections are required annually for all inactive units. Inspections conducted by primacy States in any given year depend, in part, on the number of active and inactive permits in each State. The primacy States conducted 64,397 inspections in FY 2017.

State Regulatory Grants are the principal means of providing environmental protection within the framework of SMCRA through “primacy” States that receive Federal grant funding. Primacy States have the most direct and critical responsibilities for conducting regulatory operations to minimize the impact of coal extraction operations on people and the environment.

FY 2017 Regulatory Grant Awards

State/Tribe	Distribution	State/Tribe	Distribution
Alabama	\$1,290,153	Missouri	201,946
Alaska	376,633	Montana	2,050,356
Arkansas	158,492	Navajo Nation	1,800,000
Colorado	2,351,315	New Mexico	880,731
Crow Tribe	571,955	North Dakota	994,638
Hopi Tribe	402,285	Ohio	1,743,607
Illinois	3,686,090	Oklahoma	1,166,020
Indiana	1,708,000	Pennsylvania	12,539,088
Iowa	41,001	Texas	2,592,728
Kansas	120,480	Utah	2,532,165
Kentucky	12,330,245	Virginia	3,914,382
Louisiana	153,257	West Virginia	11,696,446
Maryland	831,640	Wyoming	2,273,345
Mississippi	183,002		

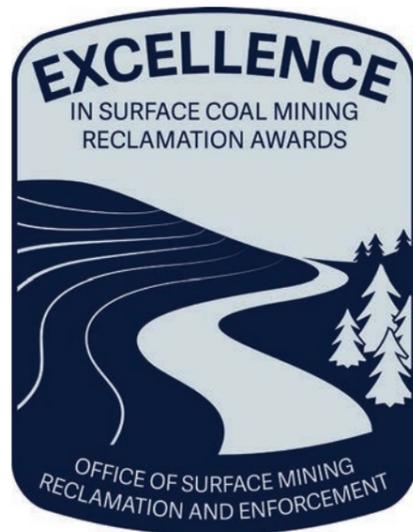
About the Awards

The awards program was designed to encourage citizen and private sector involvement in the care of America's resources, recognize the outstanding reclamation that is being achieved by companies under the surface mining law, capture and infuse in others a spirit of commitment to restoring the land after it is mined for coal, and provide a catalyst for the transfer of new or innovative technology for wider use.

Coal companies, regulatory authorities, State or Federal mine inspectors, interest groups, or landowners may submit nominations.

Each year, OSMRE presents the following awards:

- **National Award** - presented to coal mining companies for achieving the most exemplary mining and reclamation in the country. A coal mining operation may be nominated for achievement in a specific portion of the reclamation (*e.g.*, design and implementation of sedimentation control practices) or for overall performance in meeting the goals of SMCRA.
- **Good Neighbor Award** - presented to coal mining companies for successfully working with the surrounding landowners and the community while completing mining and reclamation. Nominations for this category briefly describe the mining and reclamation operation (both narrative and photos), and include testimonial letters and/or other documentation of a successful good neighbor policy.



The Excellence in Surface Coal Mining Reclamation Awards are presented in partnership with the National Mining Association.

2017's Excellence in Surface Coal Mining Reclamation

The Excellence in Surface Coal Mining Reclamation Awards are presented to coal mining companies that achieve the most exemplary coal mine reclamation in the nation. Past winners have demonstrated a commitment to sound mining practices and effective reclamation plans that enhanced the beneficial post-mining use of the land. OSMRE has honored high-quality coal mine reclamation since 1986.

All winning projects go beyond reclamation requirements to achieve superior results in returning a site to productive use after completion of mining.

Here are the 2017 winners:



National Award Winner:

Cloud Peak Energy
Spring Creek Coal, LLC
Spring Creek Mine, Montana



National Award Winner:

Arch Coal
Coal-Mac, LLC
Pine Creek 2 Surface Mine, West Virginia



Good Neighbor Award Winner:

Thunder Basin Grasslands Prairie Ecosystem Association - Five Coal Mining Companies in Northeastern Wyoming:

- Arch Coal, Inc.;
- Cloud Peak Energy, Inc.;
- Contura Energy, Inc.;
- Kiewit Mining Group, Inc.; and
- Peabody Energy



See more Excellence in Surface Coal Mining Reclamation winners at www.osmre.gov/programs/awards/ActiveWinners.shtm

Civil Penalty Project

A&W Auger Corporation, Permit #1183040, Wartburg, TN

In May 2004, OSMRE began working on the reclamation of a forfeited abandoned surface mine. However the bond was not entirely adequate to complete the reclamation required at the site. A significant period between the permittee ceasing operations and the commencement of this civil penalty funded project led to significant erosion and revegetation problems. The major outstanding reclamation involved backfilling, grading, and revegetation of a 100-foot tall highwall that was approximately 1,300 feet in length. This highwall presented a significant health and safety issue to the public. The acquisition of the land by Frozen Head State Park to make it part of their State Park Natural Area compounded the existing dangers.

The project proposal was to eliminate the highwall, augment the soil with lime, and revegetate. The reclamation and regrading of the site involved approximately 18 acres. Brush, briars, and unmanaged volunteer tree species dominated the location before reclamation began. The site was reseeded with 2,500 native trees that included the Persimmon, Sweetgum, Virginia Pine, White Oak, and Yellow Poplar species.

The land showed heavy signs of visitation with multiple trails leading into the site from abutting natural areas that were well-traveled. While the location was undergoing active reclamation, it was common for members of the community to visit the site for regular updates. The State of Tennessee, the Frozen Head State Park Superintendent, and residents strongly supported the project. According to the superintendent, the State Park and natural area receive approximately 160,000 visitors per year.

This project eliminated severe health and safety concerns while benefiting environmental sustainability, wildlife and forestry enhancement, and increased recreational land use.

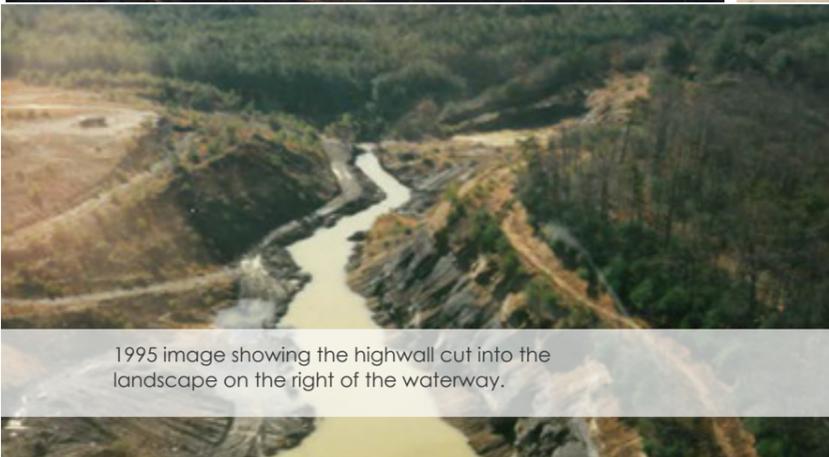
The land was returned to its approximate original configuration before mining and is a significant benefit to the public park system.



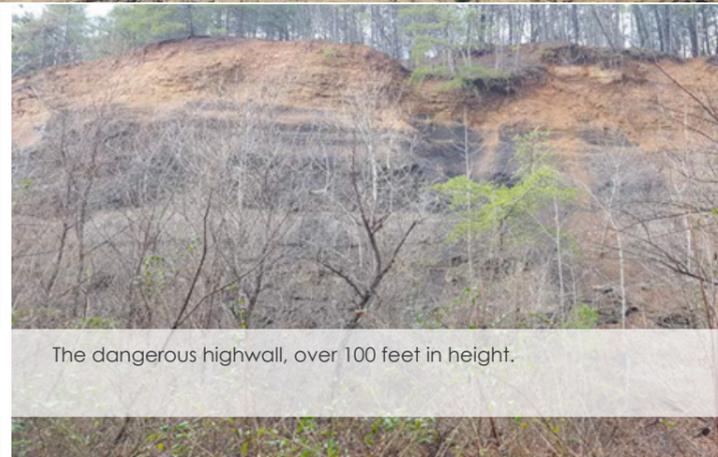
Highwall reclamation by cutting and pushing material from the top.



Material is pushed to build up the highwall base and the terraces are cut.



1995 image showing the highwall cut into the landscape on the right of the waterway.



The dangerous highwall, over 100 feet in height.



Drainage ditch placed with soil augmentation above the terrace.



Grass starting to establish on the site.

Technology

DEVELOPMENT AND TRANSFER

As part of OSMRE's mandate under SMCRA, the Bureau provides technical support, assistance, and training to state and tribal surface coal mining programs. The Technology Development and Transfer Program covers a range of activities that promote and utilize technological innovations that better protect the environment during mining and in reclamation of active and abandoned mines.

OSMRE also provides training that ensures that surface mining programs are administered efficiently and effectively. In FY 2017, the Technology Development and Transfer Program received \$15.2 million.

For more information on OSMRE's Technology Development and Transfer Program, visit www.osmre.gov/programs/tdt.shtm.



OSMRE AmeriCorps Member monitors sycamore and locust trees in Kentucky.

National Technical Training Program

One of the ways that OSMRE balances coal production with environmental protection is by providing resources for technical assistance and training through its National Technical Training Program (NTTP).

The NTTP provides training related to permit approval, bond release, reclamation, and enforcement within the technical disciplines of engineering, hydrology, blasting, agronomy, and botany, which often advance technical solutions developed during benchmarking workshops.

In addition to regularly scheduled FY 2017 courses, NTTP presented the following special sessions:

- NEPA Procedures Special Session in Big Stone Gap, VA with 28 students;
- Surface and Groundwater Hydrology in Austin, TX with 22 students; and
- Budget Administrative Meeting with 16 students.

In total, NTTP provided 39 training classes for 696 students during FY 2017.

Technical Innovation and Professional Services

The Technical Innovation and Professional Services, TIPS, is a national service provided by OSMRE that provides off-the-shelf scientific and engineering modeling software to state, tribal, and federal offices that administer, or assist in administration of, SMCRA.

TIPS also delivers comprehensive instructor-led and online training courses in the use of those tools. The training, developed in-house by state, tribal, and OSMRE experts, is customized to mining and reclamation applications.

The goal of TIPS is to provide state, tribal, and OSMRE personnel with a comprehensive set of analytical tools to aid in technical decision-making related to regulatory and reclamation processes. The services provided are centered around off-the-shelf scientific and engineering computer hardware and software supported by OSMRE in partnership with the States and tribes. This technical assistance has grown from a few applications available on a single specially designed shared workstation to a suite of software on each user's desktop computer.

TIPS also provides commercial software applications to State, Tribal, and OSMRE offices at considerable cost savings by sharing the commercial licenses for the software via the Internet and OSMRE Wide Area Network. Thirty commercially available software applications cover a wide range of regulatory and AML subjects. The

customer base covers over 100 State, Tribal and OSMRE office locations throughout the country—nearly 2,000 users.

The TIPS suite of engineering, scientific, database, and mapping core software aids the technical decision-making associated with:

- Conducting reviews of permits
- Performing cumulative hydrologic impact assessments
- Quantifying potential effects of coal mining
- Preventing acid mine drainage
- Quantifying subsidence impacts
- Measuring revegetation success
- Assisting in the design of abandoned mine land projects
- Providing the scientific basis for environmental assessments and environmental impact statements

Demand for TIPS tools and support continues to increase, especially in the demand for geospatial data and mobile computing tools for field use. TIPS also offers training to accommodate the use of mobile computing devices by inspectors. Mobile computing allows inspectors to be more efficient, which, in turn, raises the quality and quantity of inspections. TIPS has also begun an effort to make satellite and aerial imagery available to SMCRA offices nationwide through a centralized server accessible from any State, Tribal, or OSMRE office.

Applied Science

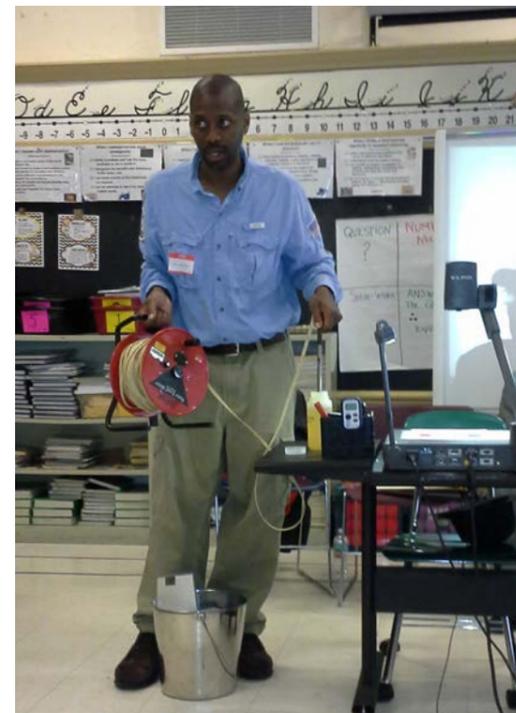
Applied Science projects support studies by universities and other research institutions in the areas of coal mine reclamation, geomorphic reclamation practices, stream protection, acid mine drainage, and other topics relevant to environmentally responsible mining and reclamation. The projects are conducted as cooperative agreements between researchers and OSMRE to maintain a strong connection between sound science and the practical applications needed to carry out SMCRA on the ground.

To date, OSMRE has awarded over \$11.5 million in grants to 82 projects. These projects included nineteen Technical Investigations funded for over \$3.4 million since FY 2015. These technical investigations differ from the usual Applied Science projects in that they are funded internally by OSMRE rather than through Applied Science funding. OSMRE has not received funding for the Applied Science program since FY 2012. OSMRE requested \$1.2 million in funding for Applied Sciences during FY 2017.

For more information on completed Applied Science studies and the program, please visit www.osmre.gov/programs/tdt/appliedScience.shtm.

In FY 2017, OSMRE's major accomplishments in Technology Development and Transfer included:

- Conducted State specific blasting inspection training, developed Microsoft Excel tools to predict and evaluate the adverse effects of blasting, maintained the OSMRE blasting webpage, hosted monthly "Blasting Technical Chat" conference calls, facilitated State regulatory discussions at State coordinated workshops, and responded to numerous State inquiries for technical information and advice.
- Formed the OSMRE Unmanned Aerial Systems (UAS) team, facilitating the use of drone technology to allow for the creation of aerial imagery, video, elevation models, contour maps, and infrared and thermal imagery for use in coal reclamation.
- Provided technical assistance related to water quality of mine discharges at numerous sites in West Virginia, Maryland, Pennsylvania, and Tennessee.
- Provided technical assistance involving analysis of quality control and stability issues at coal mine waste slurry impoundments in Tennessee and Kentucky, and evaluation of experimental practices in West Virginia and Kentucky.



OSMRE Hydrologist demonstrates technology used in mine reclamation to students at a local school.

Underground Mine Maps

The Underground Mine Mapping Initiative seeks to enhance the capabilities of the States, Tribes, and OSMRE to make underground coal mine maps available to the public. The initiative supports the identification, acquisition, preservation, scanning, and digital rendering of historic mine maps. It also supports developing standard practices and, where necessary, acquiring hardware, software, and personnel resources needed to properly archive mine maps.

When maps are scanned and catalogued by each State, copies are sent to OSMRE's National Mine Map Repository (NMMR) in Pittsburgh, Pennsylvania. OSMRE archives maps and reciprocally provides copies to the States for their collections. In this fashion, the NMMR provides map information from a central location to homeowners and other interested parties, and serves as a backup location for the States to ensure long-term protection of these valuable historic records.

Since the program began, OSMRE has funded 61 projects for a total expenditure of more than \$3 million. The total State cost share contributed was over \$1.6 million, which is a 53% matching fund ratio. As a result of this funding, five States will complete all remaining digital underground mine mapping efforts and will share this information with the general public via the Internet. In 2017, OSMRE did not distribute a solicitation for Underground Mine Mapping projects.

- Organized through Appalachian Regional Reforestation Initiative (ARRI) partners 2,140 volunteers to plant approximately 240,000 trees on post-bond release mine sites across Appalachia.
- Expanded the OSMRE Technology Development and Transfer presence on the OSMRE website, implementing a strategic Technology Transfer process.
- Completed software development and initial testing for e-permitting.
- Developed and implemented a new ArcGIS/SQL database for the National Mine Map Repository, allowing for more efficient data entry and retrieval of mine map information.
- Fulfilled 330 client requests consisting of a total of 3,014 mine maps.
- Conducted educational outreach opportunities regarding the OSMRE mission, coal mining, and careers in science, technology, engineering, and mathematics to 16,245 K-12th grade students across various schools and educational organizations throughout the country.

Fiscal Year 2017

TABLES

Veteran Pennsylvania Mining Engineer Received OSMRE's 5th ECHO Award

Craig Burda cited for successful effort to end acid mine drainage from coal waste facilities

For more than 20 years, mining engineer Craig Burda dedicated himself to protecting people and the environment. Specifically, Burda saw the ongoing threat of acid mine drainage (AMD) coming from permitted coal waste facilities.

Due to Burda's tireless work at the Pennsylvania Department of Environmental Protection (PADEP), and his understanding of the law and the engineering needed to eliminate the hazard of AMD, his efforts led to a change in how the Commonwealth

permits coal refuse sites. Today, refuse facilities in Pennsylvania are permitted as "zero discharge" after reclamation is completed.

OSMRE honored Burda with the fifth ECHO (Environment, Community, Humanity, Ownership) Award for his sustained efforts to effectively implement the law.

The nomination, which came from an OSMRE hydrologist, outlined how Burda analyzed groundwater data and showed how past reclamation techniques were inadequate to prevent AMD. Burda also required a coal producer to use new materials to line a refuse area, which created a new standard. As his nomination stated, "Craig's accomplishment was achieved with no change in the regulatory requirements for protecting surface and ground water. He evolved the program by simply failing to accept substandard practices and using monitoring data as the basis for his permitting decisions."

Mr. Burda was presented the ECHO Award at the Rachel Carson State Office Building in Harrisburg, Pennsylvania, on January 4, 2017.



The cornerstone of the Public Health Building went into place on May 6, 1931. Seventy-six years later, that building would become the original home of OSMRE.



OSMRE Echo Award logo.



2017 ECHO Award Winner Craig Burda.

Final Rules Published, FY 2017

Title	Citations	Date Effective	Summary of the Rule
Civil Penalties Inflation Adjustments	82 FR 9349	2/6/2017	Pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 and the Office of Management and Budget (OMB) guidance, this rule adjusts the level of civil monetary penalties assessed under the Surface Mining Control and Reclamation Act of 1977 for 2017.
Stream Protection Rule	81 FR 93066	1/19/2017	OSMRE published a revision of its regulations. On February 1, 2017, Congress nullified this rule under the Congressional Review Act.

During FY 2017, OSMRE published in the Federal Register four proposed rules and three final rules for state program amendments.
Data Source: OSMRE Program Support Directorate

Watershed Cooperative Agreements, FY 2017

State	Project Name Sponsor Organization	Grant Amount (dollars)
Iowa	Rowley Application Pathfinders RC&D	\$100,000
	Schmitz Application Pathfinders RC&D	\$100,000
	Indiana West Application Pathfinders RC&D	\$100,000
Ohio	Monday Creek Rural Action, Inc.	\$100,000
Pennsylvania	Kentucky Hollow Pittsburg Botanic Gardens	\$100,000
Total		\$100,000

Data Source: OSMRE Regional Offices as reported in Data Validation and Verification forms
Total Number of Projects: 5

Significant Court Cases, FY 2017

Case Name	Citation	Summary of Decision
Wyodak Res. Dev. Corp. v. United States	130 Fed. Cl. 315 (2017)	Plaintiff Wyodak Resources Development Corp. filed this suit in the U.S. Court of Federal Claims seeking a partial refund of abandoned mine land reclamation (AML) fees it paid to the Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE) pursuant to section 402(a) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA), 30 U.S.C. § 1232(a), and OSMRE's implementing regulations at 30 C.F.R. §§ 870.12(a) and 870.13. Wyodak's position was that it was entitled to pay AML fees at the lower lignite rate on a portion of the coal it produced from a mine in the State of Wyoming, while the government's position was that Wyodak was responsible for payment of AML fees at the higher surface mining rate on all of the coal it produced from the mine. After a 2012 trial court decision in favor of the government, Wyodak appealed to the U.S. Court of Appeals for the Federal Circuit, which, in 2013, reversed the trial court's decision and remanded the case to that court for further proceedings. On January 23, 2017, after a 2016 trial that centered on expert witness testimony and related issues, the trial court issued a decision in favor of the government. The court held that Wyodak was not entitled to the refund it sought because it did not present satisfactory evidence at trial that lignite was present in its mine. Wyodak did not appeal the decision.
M.L. Johnson Family Props., LLC v. Jewell	237 F. Supp. 3d 528 (E.D. Ky.)	M.L. Johnson Family Properties, LLC (Johnson Family) filed this complaint in 2016, seeking judicial review of a Department of the Interior administrative law judge (ALJ) decision that upheld OSMRE's decision to terminate a cessation order issued to Premier Elkhorn Coal LLC. Johnson Family owns a majority interest in the surface of the subject property. Premier Elkhorn, an intervenor defendant in the case, holds a lease for the coal under the property. On February 15, 2017, the court issued an opinion denying the government's and Premier Elkhorn's motions for judgment on the pleadings and to dismiss, respectively, which had argued that the court lacked jurisdiction because Johnson Family had failed to exhaust its administrative remedies. The court accepted that, in the Sixth Circuit, exhaustion is a mandatory, jurisdictional requirement under SMCRA. However, the court held that Johnson Family satisfied the exhaustion requirement when it filed an appeal of the ALJ's ruling with the Interior Board of Land Appeals (IBLA), it requested a stay of the ruling until the IBLA resolved the appeal, and the IBLA failed to respond to the stay request within the 45-day period allotted under 43 C.F.R. § 4.21.
Farrell-Cooper Mining Co. v. U.S. Dep't of the Interior	864 F.3d 1105 (10th Cir. 2017)	In 2016, Farrell-Cooper filed a complaint in federal district court in Oklahoma, seeking to have the district court review the decision of a Department of the Interior administrative law judge (ALJ) that sustained a notice of violation (NOV) that OSMRE issued to Farrell-Cooper in 2013 for allegedly failing to return one of its mines to the approximate original contour of the land. The district court dismissed the complaint, finding that the court did not have subject matter jurisdiction because the ALJ's decision did not constitute final agency action. Farrell-Cooper filed an appeal with the U.S. Court of Appeals for the Tenth Circuit. On July 25, 2017, the Tenth Circuit ruled in Farrell-Cooper's favor, holding that, pursuant to 43 C.F.R. § 4.21(a)(3), "the ALJ's decision became final and subject to judicial review following the IBLA's denial of a stay." The appellate court reversed the district court's dismissal of Farrell-Cooper's complaint and remanded the case to the district court for proceedings consistent with the appellate decision. The government did not seek rehearing of the appellate decision.

Data Source: U.S. Department of the Interior, Office of the Solicitor

Significant Court Cases, FY 2017 continued

Case Name	Citation	Summary of Decision
Diné Citizens Against Ruining Our Environment v. Bureau of Indian Affairs	No. CV-16-08077-PCT-SPL (D. Az. Sept. 11, 2017)	In 2016, Diné Citizens Against Ruining Our Environment and four other plaintiffs filed a complaint challenging the decisions of OSMRE and three other Department of the Interior agencies associated with the 25-year extension of operations for the Four Corners Power Plant and Navajo Mine, which are located on Navajo Nation lands. The complaint alleged violations of the Endangered Species Act, the National Environmental Policy Act, and the Administrative Procedure Act. The federal agencies, led by OSMRE, completed an environmental impact statement evaluating the effects of various permitting actions, including issuance of a new SMCRA permit for a new area of the mine. The mine owner, Navajo Transitional Energy Company (NTEC), filed a limited motion to intervene for the purpose of seeking to dismiss the case under Rule 19 of the Federal Rules of Civil Procedure, which the court granted. On September 11, 2017, the court granted NTEC's motion to dismiss the case, which the government had opposed. The court found that NTEC was a required party because NTEC had a legally protected interest that only NTEC can adequately protect. The court concluded that NTEC could not be joined as a party because it enjoys sovereign immunity as an arm of the Navajo Nation. Because NTEC was a required party that could not be joined, the court found that considerations of equity and good conscience dictated dismissal of the suit in its entirety.
Southern Appalachian Mtn. Stewards v. Zinke	279 F. Supp. 3d 722 (W.D. Va. 2017)	Plaintiffs Southern Appalachian Mountain Stewards (SAMS) and Sierra Club filed this action pursuant to 30 U.S.C. § 1276(a)(2) of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). Plaintiffs are pursuing judicial review of a decision from the Interior Board of Land Appeals (IBLA). At bottom, plaintiffs contend that the decision improperly denied a federal inspection to address allegations in plaintiffs' citizen complaint concerning selenium levels at a Virginia coal mine's outfall. On September 20, 2017, after the parties briefed cross-motions for summary judgment, the district court issued an opinion in plaintiffs' favor, holding that the challenged IBLA decision was arbitrary and capricious. Among other things, the court found that the IBLA's finding that the Virginia State regulatory authority's sampling showed there was no violation of Virginia's water quality standards was "counter to the record evidence and fails to address an important aspect of the plaintiffs' complaint." OSMRE was directed to conduct a federal inspection to address the allegations set forth in plaintiffs' citizen complaint.

Data Source: U.S. Department of the Interior, Office of the Solicitor

Federal Oversight of State Programs, FY 2017¹

State	Oversight Inspections ²	Ten-Day Notices for Observed Violations ³	Ten-Day Notices for Citizen Complaints ⁴	Notices of Violations ⁵	Failure-To-Abate Cessation Orders ⁶	Imminent Harm Cessation Orders ⁷
Alabama	44	2	0	0	0	0
Alaska	4	0	0	0	0	0
Arkansas	2	0	0	0	0	0
Colorado	14	0	0	0	0	0
Illinois	43	0	0	0	0	0
Indiana	21	0	2	0	0	0
Iowa	0	0	0	0	0	0
Kansas	0	0	0	0	0	0
Kentucky	398	1	1	0	0	0
Louisiana	12	0	0	0	0	0
Maryland	18	0	0	0	0	0
Mississippi	8	0	0	0	0	0
Missouri	2	0	0	0	0	0
Montana	5	0	0	0	0	0
New Mexico	6	0	0	0	0	0
North Dakota	9	0	0	0	0	0
Ohio	61	0	1	0	0	0
Oklahoma	8	0	5	0	0	0
Pennsylvania	310	9	9	2	0	0
Texas	6	1	0	0	0	0
Utah	8	0	0	0	0	0
Virginia	94	0	1	0	0	0
West Virginia	293	1	21	0	0	0
Wyoming	9	0	0	0	0	0
TOTAL	1375	14	40	2	0	0

¹ Table displays inspections conducted and enforcement actions cited by OSMRE in States with approved regulatory programs during FY 2017.

² "Oversight Inspections" are those conducted solely by OSMRE and reported in the Inspection and Enforcement Tracking (INE) system using "Table 3-Field Office Visits and Inspections." Assisted inspections and field visits performed jointly with States are not included.

³ OSMRE issues a "Ten-Day Notice for an Observed Violation" to the State Regulatory Authority when OSMRE observes a violation. The State has ten days to issue a Notice of Violation, or take other appropriate enforcement action, to compel the coal mine operator to abate the violation or to respond to OSMRE explaining why issuance of a Notice of Violation or other enforcement action would not be appropriate.

⁴ OSMRE issues a "Ten-Day Notice for a Citizen Complaint" to the State Regulatory Authority when a citizen requests an inspection of a suspected violation, and OSMRE has reason to believe that a violation exists. The State has ten days to issue a Notice of Violation, or take other appropriate enforcement action, to compel the coal mine operator to abate the violation or to respond to OSMRE explaining why issuance of a Notice of Violation or other enforcement action would not be appropriate.

⁵ OSMRE issues a Federal "Notice of Violation" to a coal mine operator when performance standards or permit conditions are not being met, and after the State Regulatory Authority has not resolved an issue raised by OSMRE in a Ten-Day Notice.

⁶ OSMRE issues a "Failure to Abate Cessation Order" when a violation has not been abated within the established abatement period.

⁷ OSMRE issues an "Imminent Harm Cessation Order" to cease surface coal mining and reclamation operations if an OSMRE inspector finds, on the basis of any Federal inspection, that there is an imminent danger to the health or safety of the public or the threat of significant, imminent environmental harm to land, air, or water resources.

Data Source: OSMRE Inspection & Enforcement Tracking (INE) System

Regulatory Program Statistics, FY 2017

State/Tribe	Regulatory Staffing ¹	New Permits	New Acreage Permitted ²	Total Acreage Permitted	Inspectable Units	Complete Inspections	Partial Inspections	Notices of Violation
Alaska	5	0	0	11651	7	26	45	0
Alabama	25	1	199	76551	167	1998	49	99
Arkansas	3	0	0	1688	6	24	52	4
Colorado	22	0	0	109692	31	126	217	3
Crow Tribe	4	0	0	9787	2	8	16	0
Georgia	0	0	0	0	0	4	7	0
Hopi Tribe	5	0	0	3110	1	2	0	0
Iowa	1	0	0	0	0	0	0	0
Illinois	47	2	851	80830	73	322	632	24
Indiana	38	0	0	174967	76	302	594	26
Kansas	2	0	0	2841	7	28	56	2
Kentucky	180	17	12084	1804244	1511	6497	10185	796
Louisiana	4	0	0	44250	3	12	24	0
Maryland	11	2	66	4764	58	263	507	8
Missouri	4	0	0	3939	8	32	64	0
Mississippi	3	0	0	11845	2	8	16	0
Montana	18	0	0	39861	13	57	107	0
North Dakota	9	0	0	115695	25	102	546	2
New Mexico	9	0	0	55732	8	30	28	0
Navajo Nation	9	0	0	67012	9	28	37	0
Ohio	24	1	74	70762	195	761	1239	14
Oklahoma	20	0	0	14071	55	226	247	16
Pennsylvania	179	30	5393	305474	1254	4808	7069	477
Tennessee	25	1	1496	21431	116	422	579	12
Texas	40	0	0	323209	32	142	299	0
Ute Tribe	3	0	0	175	1	4	9	0
Utah	14	0	0	2260	32	109	196	12
Virginia	58	6	644	74162	302	1507	2036	101
Washington	5	0	0	14301	2	7	16	0
West Virginia	215	18	1938	342794	2040	7920	14586	667
Wyoming	18	0	0	324828	30	120	184	0
TOTAL	997	78	22,745	4,111,926	6,066	25,895	39,642	2,263

¹ Staffing rounded to nearest whole number.

² New acreage includes acreage for new permits, incidental boundary revisions, and any other permit revisions that add acreage.

State statistics based on 2017 State Program evaluation year (July 1, 2016 to June 30, 2017); Federal statistics, for Federal Program States and Indian Tribes, based on 2017 Federal fiscal year (October 1, 2016 to September 30, 2017).

Data Source: 2017 Data for States and Tribes (DST)

Regulatory Program Statistics, FY 2017 continued

State/Tribe	Failure-To-Abate CO's	Imminent Harm CO's	Bond Forfeitures	Acreage of Phase I Bond Released	Acreage of Phase II Bond Released	Acreage of Phase III Bond Released
Alaska	0	0	1	96	430	0
Alabama	10	2	1	1847	853	1086
Arkansas	0	0	0	0	0	0
Colorado	0	0	0	149	157	751
Crow Tribe	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Hopi Tribe	0	0	0	0	0	0
Iowa	0	0	0	0	0	0
Illinois	2	0	0	2688	2425	3263
Indiana	7	0	0	4879	4904	3444
Kansas	0	0	0	0	120	0
Kentucky	167	7	7	21746	10478	8282
Louisiana	0	0	0	0	0	0
Maryland	0	0	1	217	221	246
Missouri	0	0	0	0	0	0
Mississippi	0	0	0	33	33	33
Montana	0	0	0	832	249	772
North Dakota	0	0	0	0	0	0
New Mexico	0	0	0	0	0	0
Navajo Nation	0	0	0	459	0	0
Ohio	0	1	0	927	1679	3540
Oklahoma	0	0	0	212	1668	1192
Pennsylvania	16	3	9	1863	3118	3487
Tennessee	0	0	0	236	814	2343
Texas	0	0	0	2915	676	809
Ute Tribe	0	0	0	59	0	0
Utah	0	0	0	21	0	85
Virginia	12	2	0	3007	2043	1845
Washington	0	0	0	0	0	0
West Virginia	50	22	0	2214	4459	13685
Wyoming	0	0	0	4674	13924	1320
TOTAL	264	37	19	49,074	48,251	46,183

Regulatory Grant Funding, FY 2017 Obligations

State/Tribe	FY 2017 Federal Funding	Total FY 2016 Federal Funding	Cumulative Through FY 2017 Federal Funding ¹
Alabama	\$1,290,153	\$1,330,148	\$43,041,804
Alaska	376,633	396,239	9,571,442
Arkansas	158,492	147,638	5,547,960
Colorado	2,351,315	2,456,471	62,277,948
Illinois	3,686,090	4,004,618	93,323,742
Indiana	1,708,000	1,930,961	58,473,185
Iowa	41,001	42,375	3,738,233
Kansas	120,480	102,048	4,227,862
Kentucky	12,238,470	11,632,000	430,228,017
Louisiana	153,257	154,478	5,562,137
Maryland	831,640	868,481	21,622,723
Michigan	-	-	135,458
Mississippi	183,002	197,773	3,117,706
Missouri	201,946	69,418	10,995,117
Montana	2,050,356	2,086,377	37,354,166
New Mexico	880,731	837,363	24,313,714
North Dakota	994,638	967,972	21,730,054
Ohio	1,743,607	2,412,328	92,085,894
Oklahoma	1,166,020	1,217,280	33,345,155
Pennsylvania	12,539,088	11,883,781	375,164,773
Rhode Island	-	-	158,453
Tennessee	-	-	5,340,085
Texas	2,592,728	2,364,367	47,776,053
Utah	2,532,165	2,305,343	55,586,355
Virginia	3,914,382	3,800,374	116,602,032
Washington	-	-	4,893
West Virginia	11,696,446	12,141,088	288,662,424
Wyoming	2,273,345	2,074,535	63,712,010
Crow Tribe	571,955	544,724	5,040,648
Hopi Tribe	402,285	392,759	6,380,933
Navajo Tribe	1,800,000	1,533,399	15,949,749
N. Cheyenne Tribe	-	-	86,888
Total	\$68,498,225	\$67,894,338	\$1,941,157,614

Figures shown above have been adjusted for rounding.
¹Regulatory Grants are used to fund OSMRE Regulatory Activities. This may include the Applicant/Violator System, Technical Innovation and Professional Services, Kentucky Settlement, and other Title V cooperative agreements. Cumulative figures are net of all prior-year adjustments.
 Data Source: Financial Business Management System

Appropriations (in thousands), FY 2017

	2016	2017
Discretionary Appropriations		
Regulation & Technology		
Environmental Restoration	\$133	
Environmental Protection	\$91,872	\$90,168
Technology Dev. & Transfer	15,205	15,205
Financial Management	505	505
Executive Dir. & Admin	15,711	15,169
Subtotal	\$123,426	\$121,047
Abandoned Mine Reclamation		
Environmental Restoration	\$9,480	\$9,480
Technology Dev. & Transfer	\$3,544	\$3,544
Financial Management	\$6,396	\$6,396
Executive Dir. & Admin	\$7,883	\$7,743
AML Economic Development Pilot Program	\$90,000	\$105,000
Subtotal	\$117,303	\$132,163
Total Discretionary Appropriations	\$240,729	\$253,210
Mandatory Appropriations		
Payments to States in Lieu of Coal Fee Receipts (Treasury Funds)	\$303,373	\$46,239
Grants to States and Tribes (AML Fund)	\$163,150	\$134,725
Transfer to United Mine Workers Fund	\$179,521	\$295,549
Total Mandatory Appropriations	\$646,044	\$476,513
Total OSMRE	\$886,773	\$729,723

Amounts do not include Civil Penalty collections. Figures are rounded.
 Data Source: Fiscal Year 2017 Congressional appropriations.

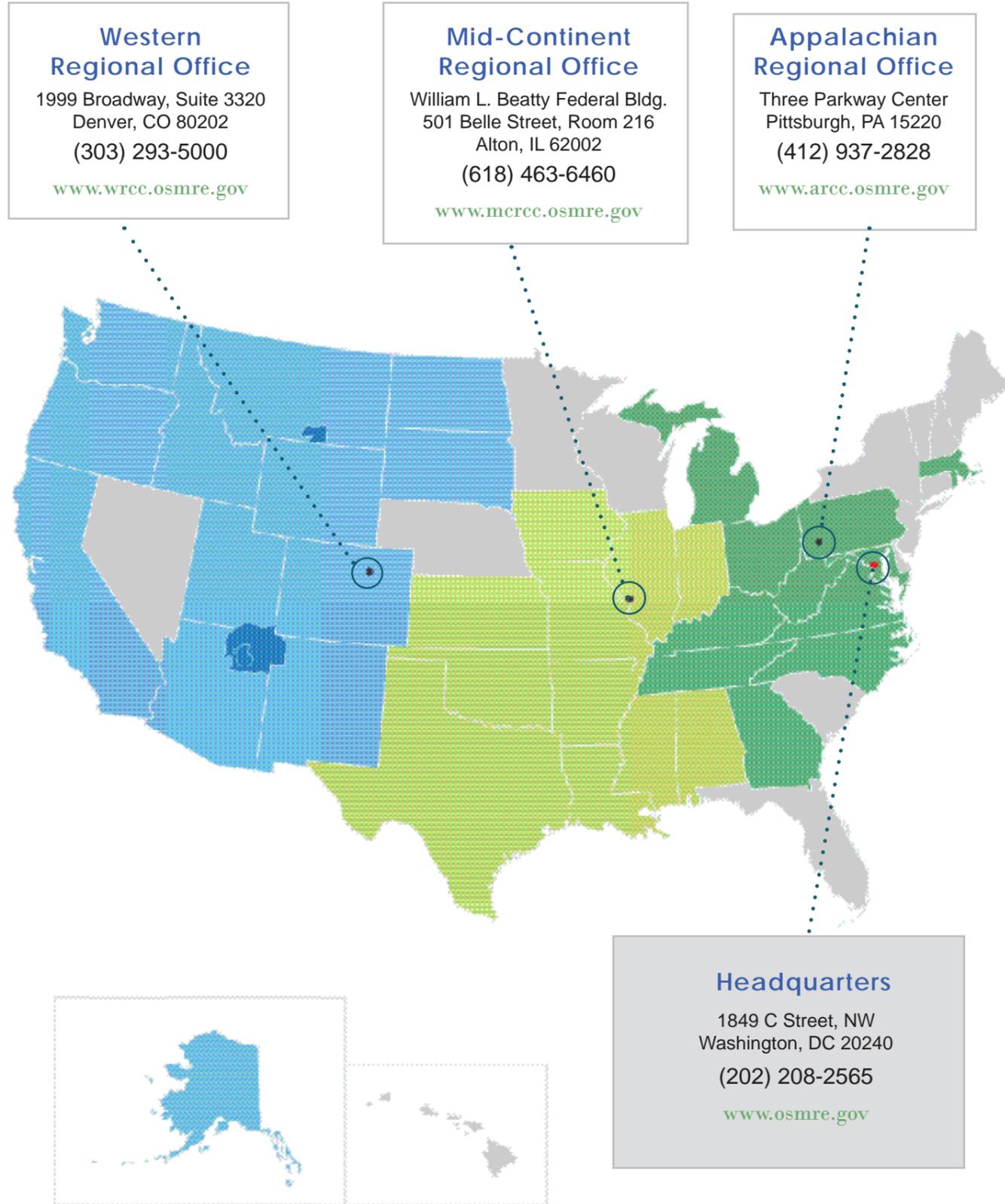
National Technical Training Program Courses and Enrollment, FY 2017

Course Name	Number of Sessions	Students
Acid-forming Materials: Fundamentals & Applications	1	23
Acid-forming Materials: Soils & Overburden	0	
AML Design Workshop: Dangerous Highwalls	1	17
AML Design Workshop: Dangerous Openings	1	9
AML Design Workshop: Fires	1	8
AML Design Workshop: Landslides	1	11
AML Design Workshop: Subsidence	1	14
AML Drilling & Grouting	1	20
AML Reality	1	14
AML Reclamation Projects	1	11
Applied Engineering Principles	2	34
Basic Inspection Workbook	1	12
Blasting and Inspection	2	35
Advanced Blasting: Investigation and Analysis	1	15
Coalfield Communications: How to Get it Right!	1	28
Enforcement Procedures	0	0
Data Source: National Technical Training Program (NTTP)		

National Technical Training Program Courses and Enrollment, FY 2017 continued

Course Name	Number of Sessions	Students
Erosion and Sediment Control	2	35
Evidence Preparation & Testimony	2	26
Expert Witness	0	0
Forensic Hydrologic Investigation	2	39
Geology and Geochemistry of Acid-forming Materials	2	33
Historical and Archeological Resources	1	23
Instructor Training Course	1	15
Mine Gas Safety and Investigations	1	11
National Environmental Policy Act (NEPA) Procedures	1	28
NEPA Special Session	1	28
Passive Treatment	2	42
Principles of Inspection	0	0
Soils and Revegetation	2	39
Subsidence	1	16
Surface and Groundwater Hydrology	2	37
Surface and Groundwater Hydrology - Special Session	1	22
Wetlands Awareness	2	51
TOTAL	39	696
Data Source: National Technical Training Program (NTTP)		

OSMRE Offices



Additional Western Regional Offices

Denver Field Division

(Alaska, Colorado, Utah)
 1999 Broadway, Suite 3320
 Denver, CO 80202
 (303) 293-5026

OLYMPIA AREA OFFICE

(Washington)
 Evergreen Plaza Bldg.
 711 South Capitol Way,
 Suite 703
 Olympia, WA 98501
 (360) 753-9538

ALBUQUERQUE AREA OFFICE

(Arizona, California, New Mexico, Navajo Tribe, Hopi Tribe, Ute Tribe)
 100 Sun Avenue, NE
 Pan American Building,
 Ste 330
 Albuquerque, NM 87109
 (303) 293-5035

Casper Field Office

(Idaho, Montana, North Dakota, South Dakota, Wyoming, Crow Tribe, Northern Cheyenne Tribe, Cheyenne River Sioux Tribe)
 150 East B Street, Room 1018
 Casper, WY 82601-1018
 (301) 261-6550

Additional Mid-Continent Regional Offices

Alton Field Division

(Illinois, Indiana, Iowa, Missouri)
 William L. Beatty Federal Bldg.
 501 Belle Street, Room 216
 Alton, IL 62002
 (618) 463-6460

Birmingham Field Office

(Alabama, Louisiana, Mississippi)
 Barber Business Park
 135 Gemini Circle, Suite 215
 Homewood, AL 35209
 (205) 290-7282

Tulsa Field Office

(Arkansas, Kansas, Oklahoma, Texas)
 1645 South 101st East Avenue,
 Suite 145
 Tulsa, OK 74135-6548
 (918) 581-6430

Additional Appalachian Regional Offices

Pittsburgh Field Division

(Maryland, Massachusetts, Michigan, Ohio, Pennsylvania, Rhode Island)
 Three Parkway Center
 Pittsburgh, PA 15220
 (412) 937-2828

HARRISBURG AREA OFFICE

215 Limekiln Rd.
 New Cumberland, PA 17070
 (717) 730-6985

Charleston Field Office

(West Virginia)
 1027 Virginia Street, East
 Charleston, WV 25301
 (304) 347-7158

BECKLEY AREA OFFICE

313 Harper Park Dr.
 Beckley, WV 25801
 (304) 255-5265

MORGANTOWN AREA OFFICE

604 Cheat Road, Suite 150
 Morgantown, WV 26508
 (304) 291-4004

Lexington Field Office

(Kentucky)
 2675 Regency Road
 Lexington, KY 40503-2922
 (859) 260-3902

LONDON AREA OFFICE

421 West Highway 80
 P.O. Box 1048
 London, KY 40741
 (606) 878-6440

Knoxville Field Office

(Georgia, North Carolina, Tennessee, Virginia)
 710 Locust Street, 2nd Floor
 Knoxville, TN 37902
 (865) 545-4103
 Fax: (865) 545-4111

FIELD OVERSIGHT BRANCH

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