



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Abandoned Mine Reclamation

Pennsylvania's SMCRA Funded AML Program Past, Present and Future

Tom Wolf, Governor

Patrick McDonnell, Secretary

PA's AML Program

The Pennsylvania Department of Environmental Protection, Bureau of Abandoned Mine Reclamation (PA-DEP-BAMR), administers the federal Abandoned Mine Lands (AML) program to address the highest priority problems resulting from coal mining that occurred prior to the passage of the Surface Mining Control and Reclamation Act of 1977 (SMCRA).

PA's AML Program

PA-DEP-BAMR receives annual grants from the US Department of Interior Office of Surface Mining Reclamation and Enforcement which is funded by a per ton fee on coal mined nationwide (\$0.28/ton for surface mined coal and \$0.12/ton for underground mined coal)

Changes in the Reclamation Fee Over Time

Abandoned Mine Land Reclamation Fee Rates* Over Time

1978-2007

Surface Mine: 35¢
Underground: 15¢
Lignite: 10¢

2008-2012

Surface Mine: 31.5¢
Underground: 13.5¢
Lignite: 9¢

2013-2021

Surface Mine: 28¢
Underground: 12¢
Lignite: 8¢



Fee per ton of coal produced

*Change in fees was a result of Congress amending the Surface Mining Control and Reclamation Act

PA's AML Problems



PA's AML Program

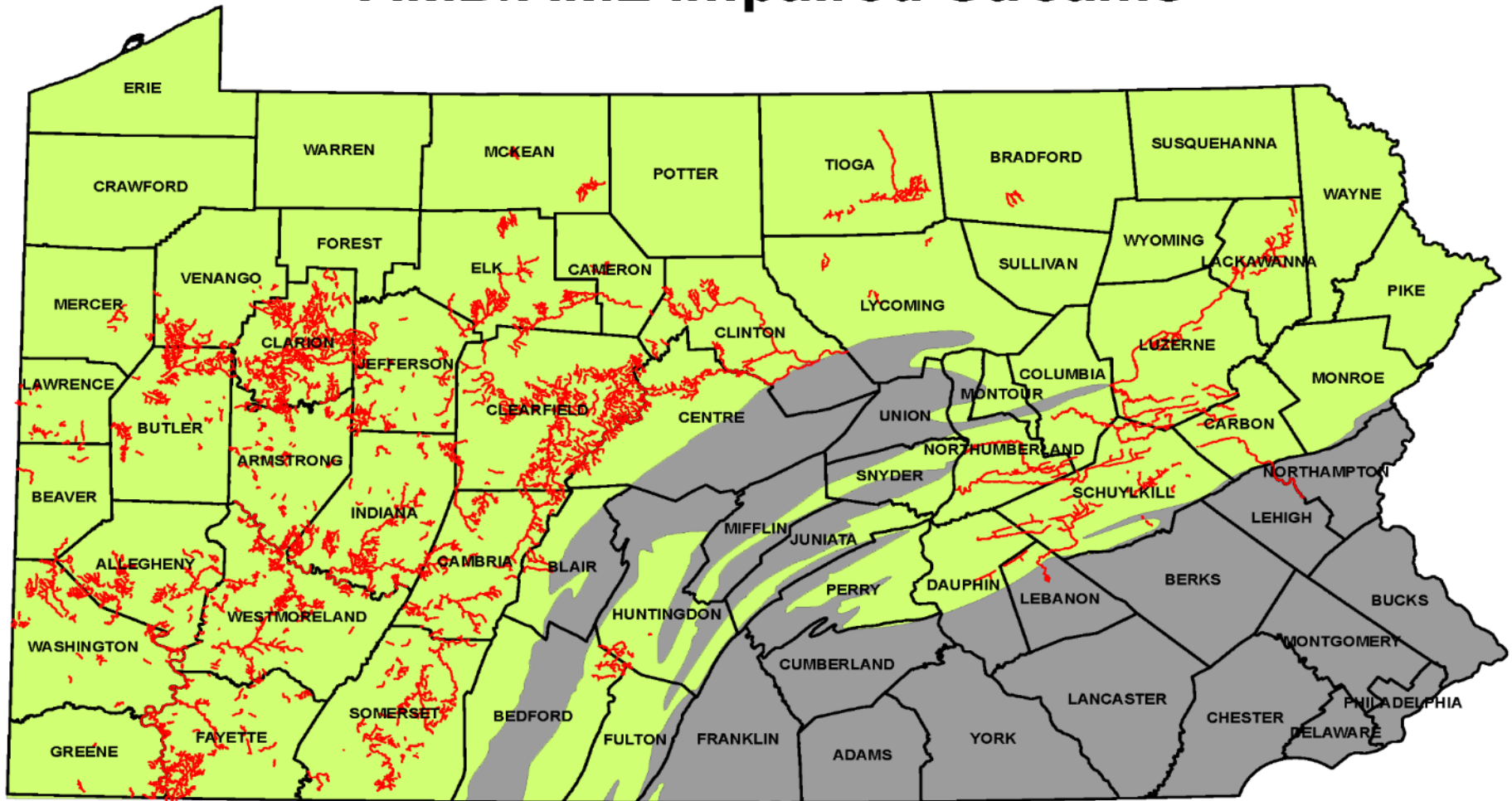
Abandoned Mine Lands are plagued by health and safety hazards, environmental degradation as well as diminished economic opportunities. The AML Program reclaims such hazards as mine subsidence, mine fires, hazardous mine openings, contaminated or diminished water supplies, coal refuse piles (culm banks), abandoned mine drainage (AMD), and dangerous highwalls with no liability or cost to the current landowners.

PA's AML Problems



PA has over 5,500 miles of AMD Impaired Streams

AMD/AML Impaired Streams



PA's AML Problems



PA AML Program's Accomplishments

- Since the 2006 reauthorization PA's coal operators paid \$104.7 million in fees on coal produced in PA. During that period PA has received AML grants totaling \$560.7 million (after sequestration). *(Thru 2019)*
- With the \$1.32 billion in grant funds, PA's AML Program has operated since 1980 and has reclaimed thousands of dangerous sites left by abandoned coal mines and treated or abated over 10 billion gallons of AMD annually resulting in increased safety and an improved environment for the citizens of the Commonwealth of Pennsylvania.

PA's AML Problems



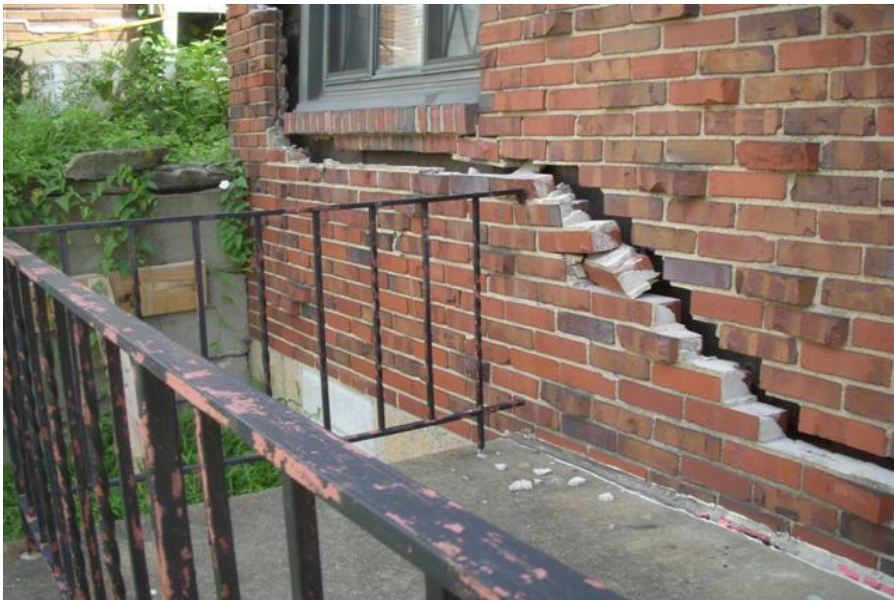
PA AML Program's Accomplishments

- Over 91,400 acres of high priority abandoned coal mine sites have been reclaimed.
- Over 1,800 acres of dangerous piles and embankments have been eliminated and the land reclaimed.
- Hazards associated with more than 1,880 open mine shafts and portals have been eliminated.
- Forty-six (46) underground mine fires or coal refuse pile fires have been extinguished eliminating these health and safety hazards and also the uncontrolled burning and release of toxic gases associated with these fires.

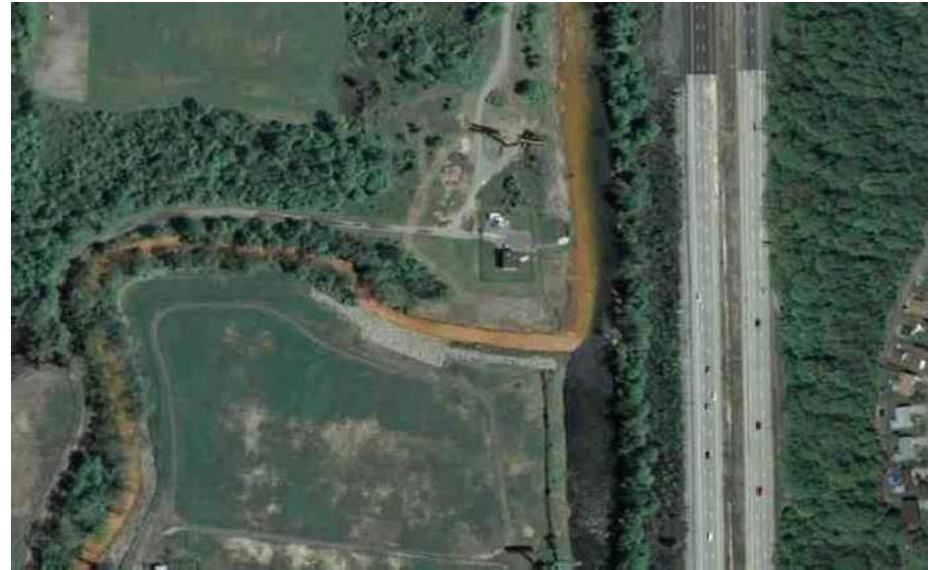
PA AML Program's Accomplishments

- Over 2,500 AML impacted water supplies have been replaced with clean and reliable water lines and \$142.8 million has been dedicated to abating or treating abandoned mine drainage to improve water quality.
- Over 1,433,000 linear feet (271 miles, the equivalent of a trip from Harrisburg to Erie) of dangerous highwalls are no longer a threat to people.

PA's AML Problems

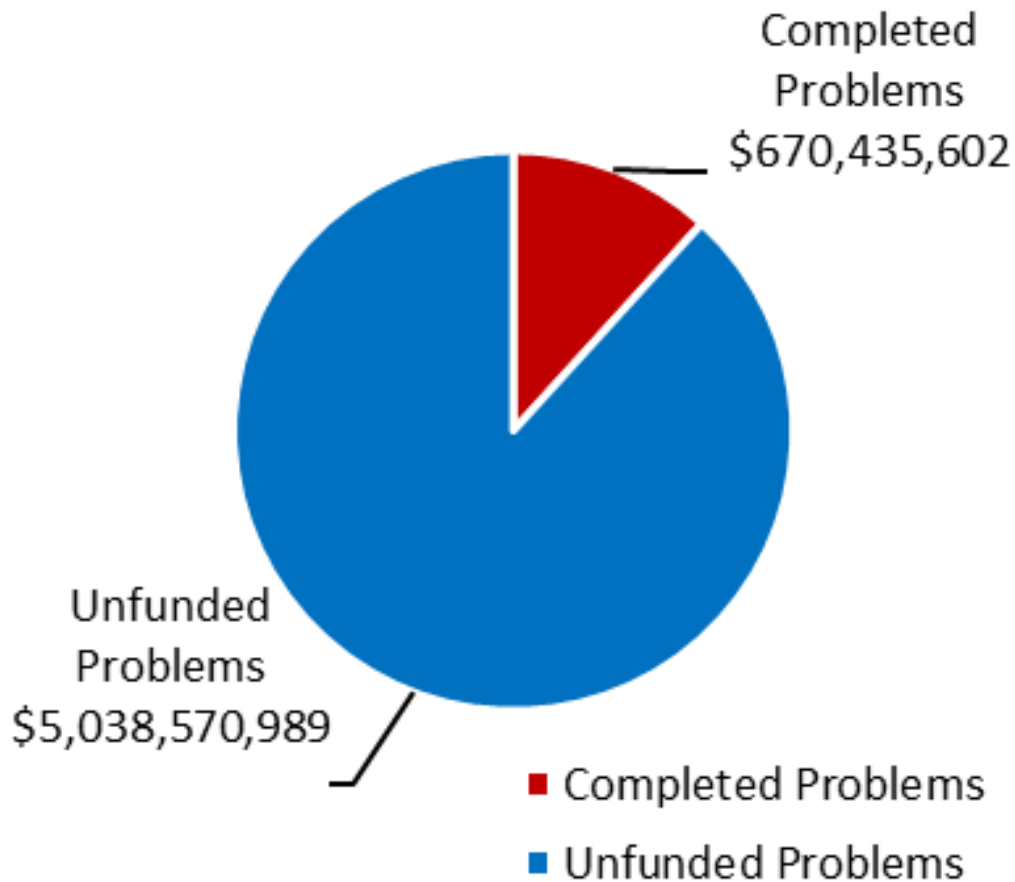


PA's AML Problems



PA AML Program's Accomplishments

Pennsylvania AML Inventory As of September 30, 2018



PA's AML Inventory consists of 5,597 individual problem areas with 33,965 individual AML features or problems.

Economic Impacts of PA's AML Program

All the AML funding Pennsylvania receives is returned to PA's economy through jobs, construction, and purchasing materials, equipment and supplies. In addition, for every federal dollar spent for construction, \$1.59 (according to IMCC) in the form of labor income, state and local tax revenue, and construction value improvements are returned to the economy.

Economic Impacts of PA's AML Program

- For every mile of AMD impacted stream that can be improved to a trout stocked fishery estimates by the PA Fish and Boat Commission suggest that over \$106,000 annually could be generated in the local economy through recreational use of the stream.
- AML sites impact 43 of PA's 67 counties, and downstream effects of AMD impact even more. Eliminating AML hazards and treating AMD has positive impacts on millions of Pennsylvanians.

Economic Impacts of PA's AML Program

Despite these impressive accomplishments, over \$3.9 billion of high-priority AML problems still exist in PA and will continue to threaten the public health and safety of its citizens until they are reclaimed.

The federal AML Inventory (e-AMLIS)

- Nationally, AML Programs continually revisit and inventory both land and water impacted by past mining (primarily coal mining).
- While a considerable number of AML hazards are addressed each year, many new AML problems are also being discovered and added to the inventory.
- OSMRE maintains a national inventory of AML problems (known as e-AMLIS) which provides the information needed to implement the AML Program in accordance with SMCRA.

<https://www.osmre.gov/programs/AMLIS.shtm>

State and Tribal AML Programs

Nationally, the AML Programs have been around since the early 1980's following the passage of SMCRA in 1977 and have demonstrated success to *“promote the reclamation of mined areas left without adequate reclamation prior August 3, 1977, and which continue, in their unreclaimed condition, to substantially degrade the quality of the environment, prevent or damage the beneficial use of land or water resources, or endanger the health or safety of the public.”*

State and Tribal AML Programs

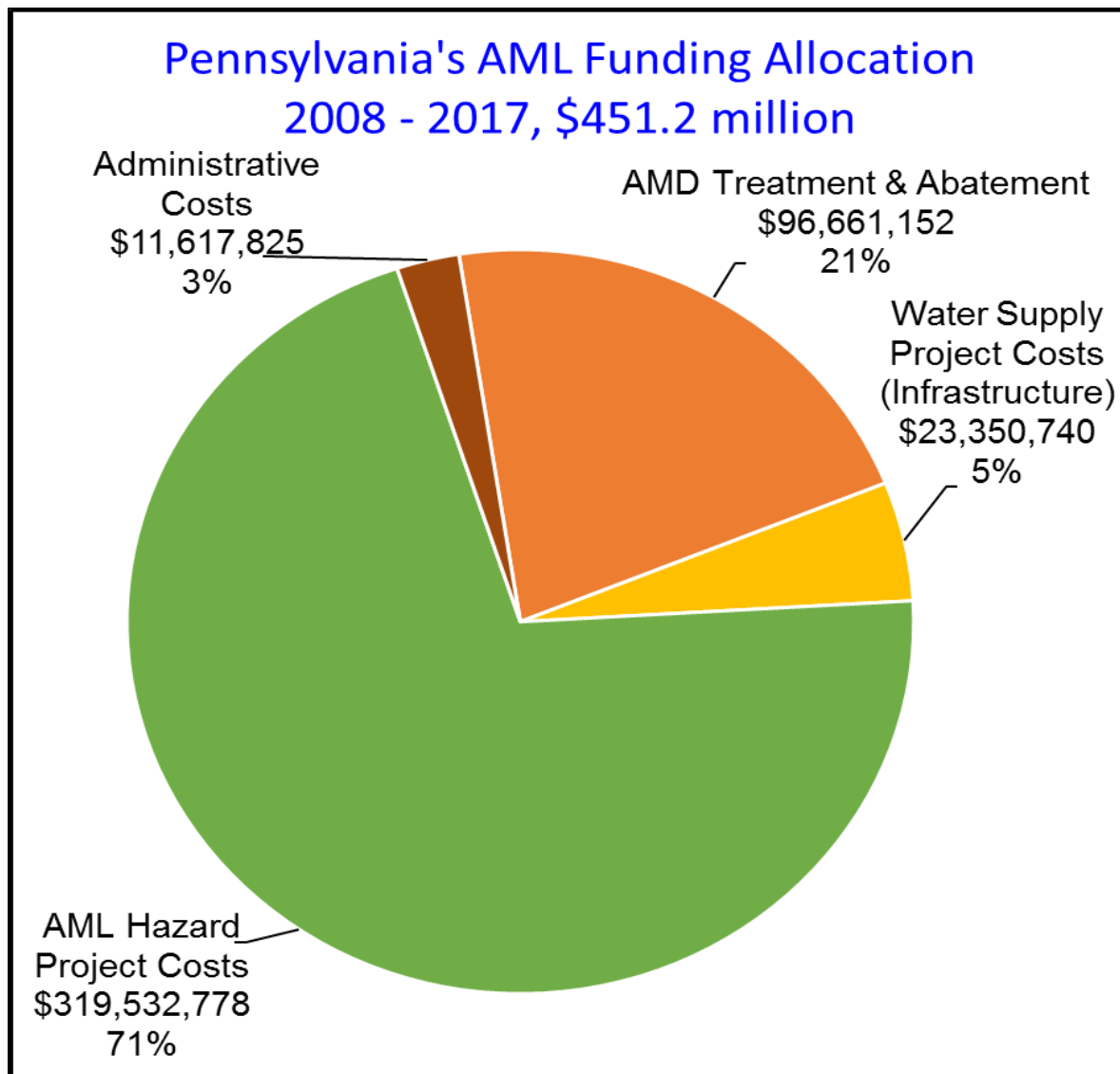
- State and Tribal AML Programs are making efficient nationwide progress with AML reclamation.
- They are providing timely responses to new abandoned mine hazards that arise, including emergencies.
- The AML Programs are excellent at public outreach and engage community partners in reclaiming the lands to meet the needs of the landowners and the communities.
- For more information, see www.ourworksnotdone.org.

How has PA's AML Program Performed?

The PA AML Program has spent 76% of its AML grants on planning, engineering, and construction of AML projects. This correlates to both good paying jobs and restored land and water. PA has also committed 21% of its annual grants to the AMD-Set Aside Program for acid mine drainage mitigation and has spent only 3% of its annual grants on administration.¹

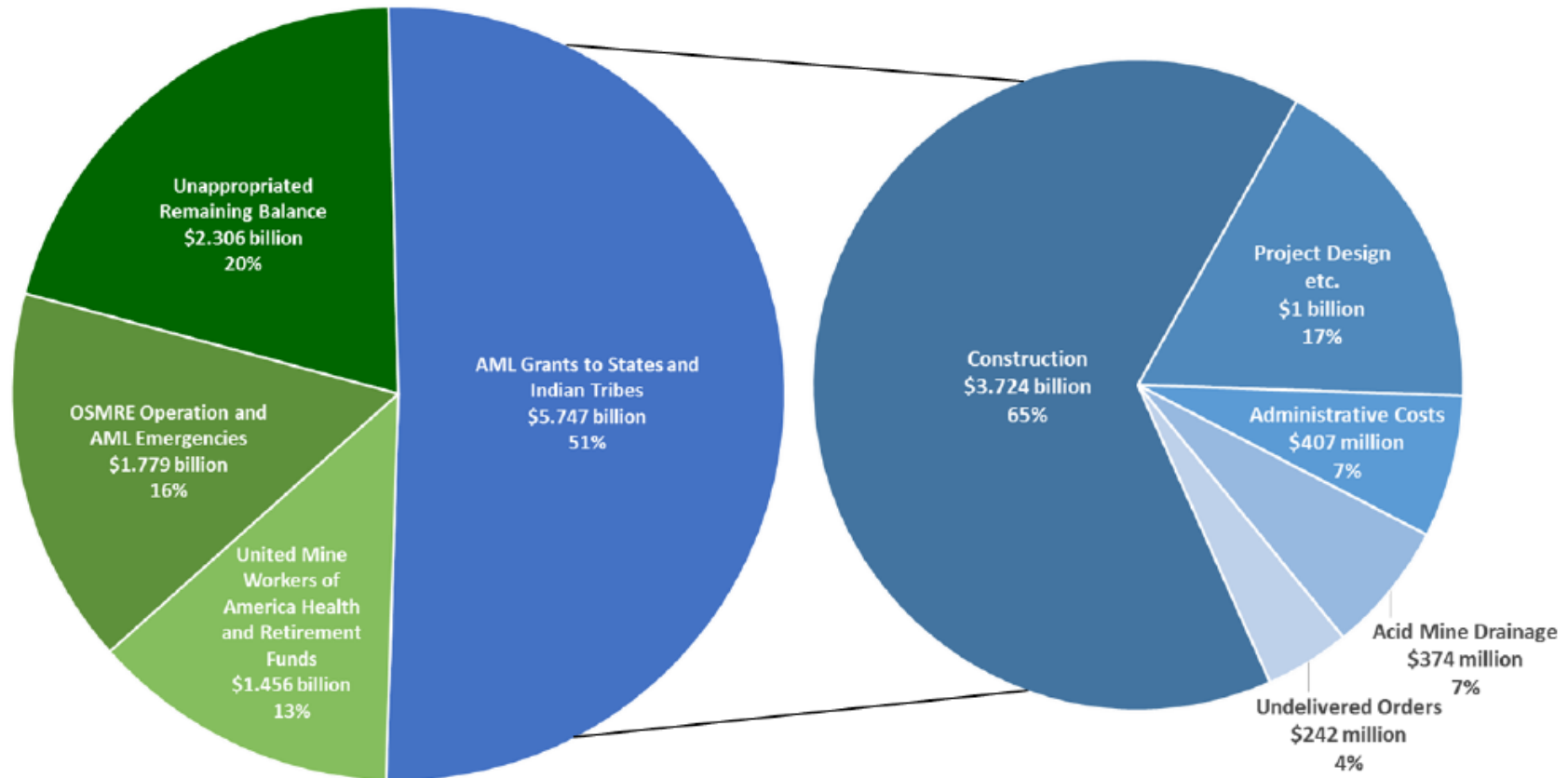
¹Values provided by OSMRE's AML Mandatory Grant Status FY08 – FY17 (FBMS) as of February 22, 2018

How has PA's AML Program Performed?



Total AML Fees Collected 1997-2018

Abandoned Mine Land (AML) Reclamation Fund FY 1977 – FY 2018 Total \$11.288 Billion as of September 30, 2018



Data Sources: OSMRE's DOI Financial Business Management System (FBMS) is the system of record for the AML Program that contains comprehensive information on AML grant allocations and expenditures. The enhanced Abandoned Mine Land Inventory System (eAMLIS) only accounts for direct construction costs to reclaim each AML problem.

Key Issues

- The current AML fee is set to expire in 2021 leaving billions of dollars in unreclaimed abandoned mine hazards across the nation with no resources. The Interstate Mining Compact Commission (IMCC) and the National Association of Abandoned Mine Land Programs (NAAML), of which PA is a member of both, strongly support the reauthorization of the AML fee collection to extend to 2036.
- The PA AML Campaign, a coalition of conservation districts, watershed groups, and other NGOs also support reauthorization of the AML fee collection.

PA's AML Problems



Key Issues

- In the most recent reauthorization (2006), PA-DEP-BAMR was projected to receive \$1.36 billion in AML Grants. However due to several factors, primarily a reduction in national coal production and federal budget sequestration, PA is now projected to receive only \$695 million.
- Without reauthorization, the AML Program will end following the distribution of the remaining funds in the AML Trust Fund. PA would receive significantly smaller AML grants for 10-12 years after 2022.

Key Issues

- In PA, the AML grants are the sole source of funding to address AML problems including emergencies such as sudden mine subsidence events and other problems. PA-DEP-BAMR has addressed an average of 77 AML emergencies per year at an average construction cost of \$3.91 million per year since assuming the program from OSMRE in 2010.
- Over the last 5 years, that number has risen to 86 AML emergencies per year at an average construction cost of \$4.85 million per year.

PA's AML Problems



Summary of AML Emergencies in PA

PA AML Emergency Statistics (2012-2018)

Year	Emergencies	Total Cost	ADs/BDs	Contracts
2012	46	\$ 957,179	\$ 70,254	\$ 886,925
2013	62	\$ 2,167,588	\$ 126,827	\$ 2,040,761
2014	87	\$ 3,482,323	\$ 164,571	\$ 3,317,752
2015	66	\$ 10,936,246	\$ 97,758	\$ 10,838,488
2016	67	\$ 3,711,409	\$ 161,597	\$ 3,549,812
2017	86	\$ 1,715,490	\$ 159,152	\$ 1,556,338
2018	127	\$ 4,423,860	\$ 345,860	\$ 4,078,000
Totals	541	\$ 27,394,095	\$ 1,126,019	\$ 26,268,076
Avg/Yr	77.3	\$ 3,913,442	\$ 160,860	\$ 3,752,582
Last 5 Years	Total	No/Yr	Total Cost	Cost/Yr
2014-2018	433	86.6	\$ 24,269,328	\$ 4,853,865.60

Key Issues

- PA currently has inventoried over 287,000 acres of land in need of reclamation, and the estimated construction cost to complete this important work is expected exceed \$5 billion.
- Approximately 10% of PA's land area is underlain by abandoned underground coal mining operations.
- PA also has over 5,500 miles of streams which are degraded by abandoned mine drainage.

Impact of Ending the AML Program in PA

The AML Program provides significant economic, environmental, and public safety benefits to the citizens of Pennsylvania. The loss of the federal AML program will have significant negative impacts on PA including:

- The loss of \$750 million or more in future federal funding

Impact of Ending the AML Program in PA

- The loss of approximately \$80 million annually contributed to Pennsylvania's economy through construction contracts, service contracts, salaries, and state and local tax revenues.
- Over 75 AML Emergencies costing approximately \$4 million annually to address will continue to occur with no source of funding.

Impact of Ending the AML Program in PA

- Discontinuation of approximately 40 contracted AML projects annually resulting in the loss of 1,000s of full and part time jobs directly and indirectly supported by the federal AML grant funding.
- Approximately 270 miles of restored streams in PA could revert to degraded conditions.
- Loss of an estimated \$28.6 million in economic benefits each year to local communities due to degraded water quality as well as reduction in fishing and boating use.

PA's AML Program

More information about PA's
AML Program can be found at
BAMR's website:

dep.pa.gov/AML



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Questions?

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