



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Active and Abandoned Mine Operations

# Abandoned Mine Reclamation in Pennsylvania

John Stefanko, Deputy Secretary Active and Abandoned Mine Operations

Pennsylvania Department of Environmental Protection

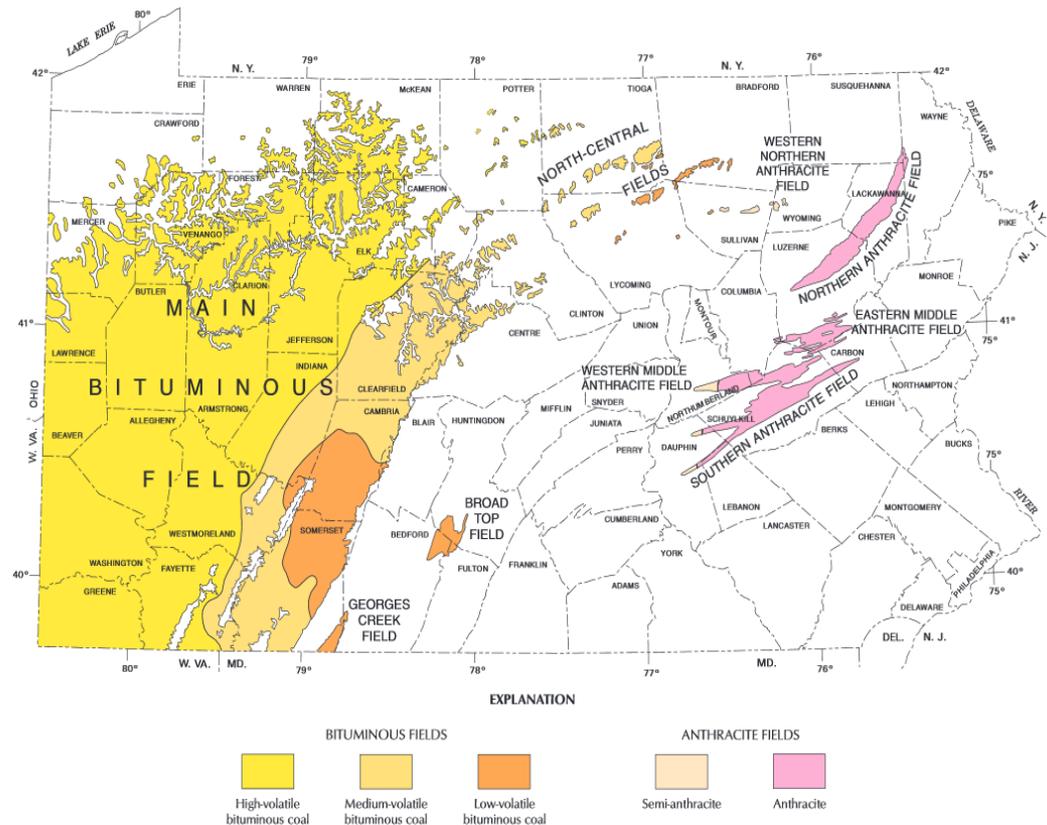
July 2018

Tom Wolf, Governor

Patrick McDonnell, Secretary

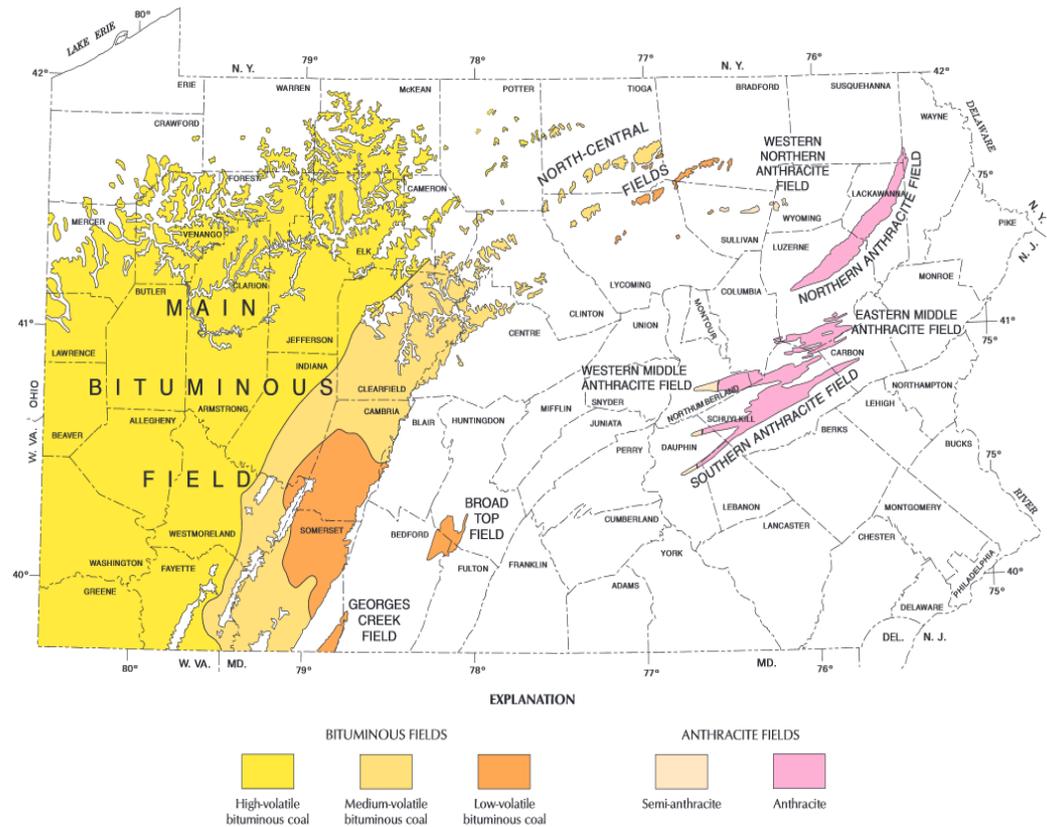
# Coal Distribution in Pennsylvania

- Pennsylvania mines two different types of coal; anthracite in the east and bituminous in the west.
- Anthracite is a hard, compact variety of coal that has a high luster.



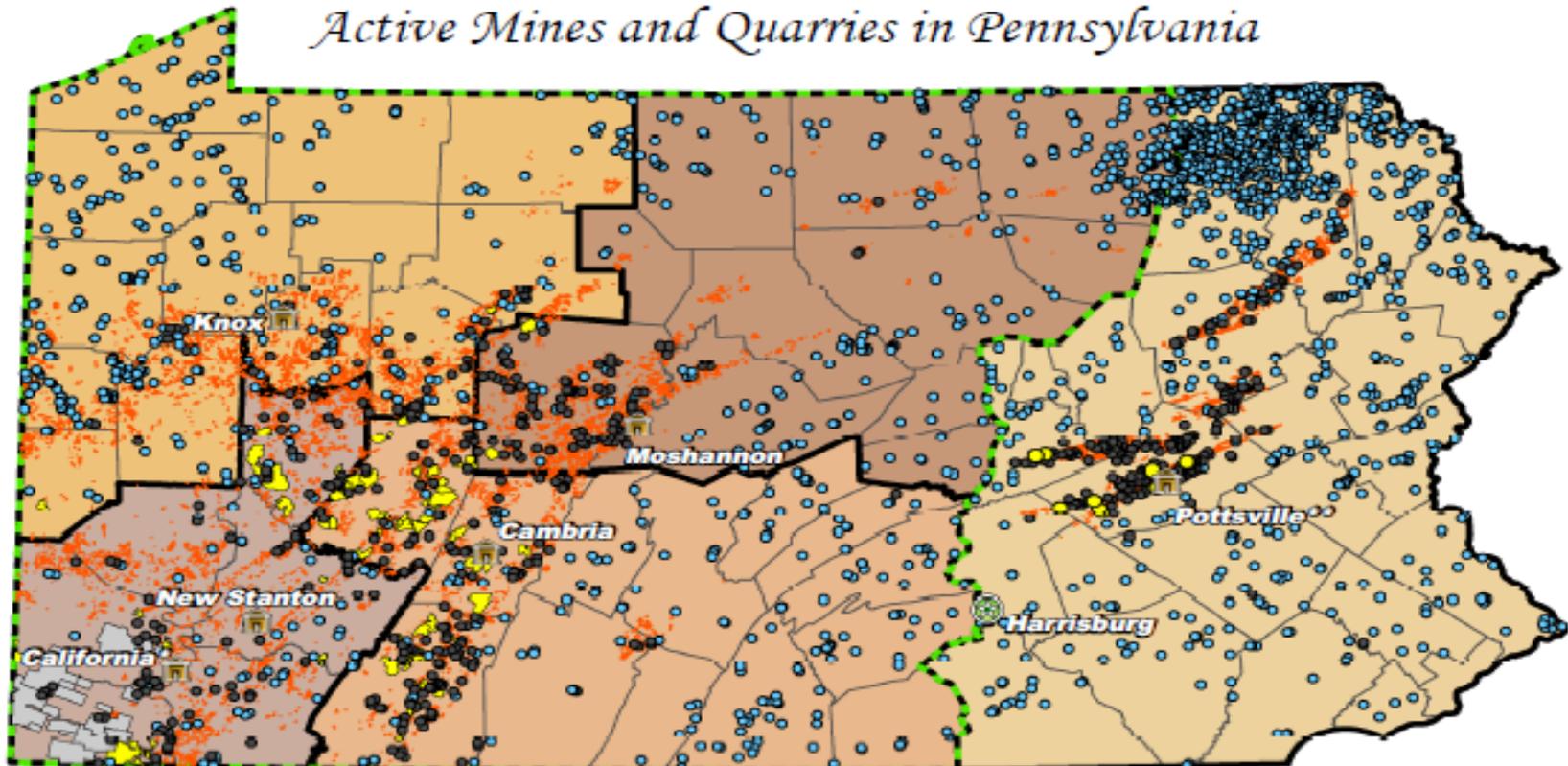
# Coal Distribution in Pennsylvania

- In 2017, Pennsylvania mined 7.6 million tons of anthracite coal.
  - Statistically no change from 2016.
- Bituminous is a relatively soft coal containing a tarlike substance called bitumen.
- In 2017, Pennsylvania mined 52.7 million tons of bituminous coal.
  - 18% increase over 2016.



# Mine Locations in Pennsylvania

## Active Mines and Quarries in Pennsylvania



### Active Mining and AML Problem Areas

- Industrial Mineral Quarry
- Surface Coal Operation
- Anthracite Underground Mine
- Room and Pillar Underground Mine
- Longwall Underground Mine
- AML Problem Area

Office of Active and  
 Abandoned Mine Operations  
 Rachel Carson State Office Bldg.  
 P.O. Box 2063  
 Harrisburg, PA 17105-2063  
 717-783-9958

Bureau of Mining Programs  
 Rachel Carson State Office Bldg.  
 P.O. Box 8461  
 Harrisburg, PA 17105-8461  
 717-787-5103

Cambria District Office  
 286 Industrial Park Road  
 Ebensburg, PA 15931-4119  
 814-472-1900

California District Office  
 25 Technology Drive  
 California Technology Park  
 Coal Center, PA 15423  
 724-769-1100  
 \*Bituminous Underground Mining

Knox District Office  
 White Memorial Building  
 P.O. Box 669  
 Knox, PA 16232-0669  
 814-797-1191

New Stanton District Office  
 131 Broadview Road  
 New Stanton, PA 15672  
 724-925-5500

Moshannon District Office  
 186 Enterprise Drive  
 Philipsburg, PA 16895  
 814-342-8200

Pottsville District Office  
 5 West Laurel Boulevard  
 Pottsville, PA 17901-2454  
 570-621-3118  
 \*\*Anthracite  
 Underground Mining

# Mine Sites

Surface non coal mines - 1,800 to 2,000

Bituminous surface coal mines – 127

Anthracite surface coal mines - 55

Anthracite refuse - 40

Bituminous underground coal mines – 39

Underground non coal mines – 15

Bituminous refuse - 14

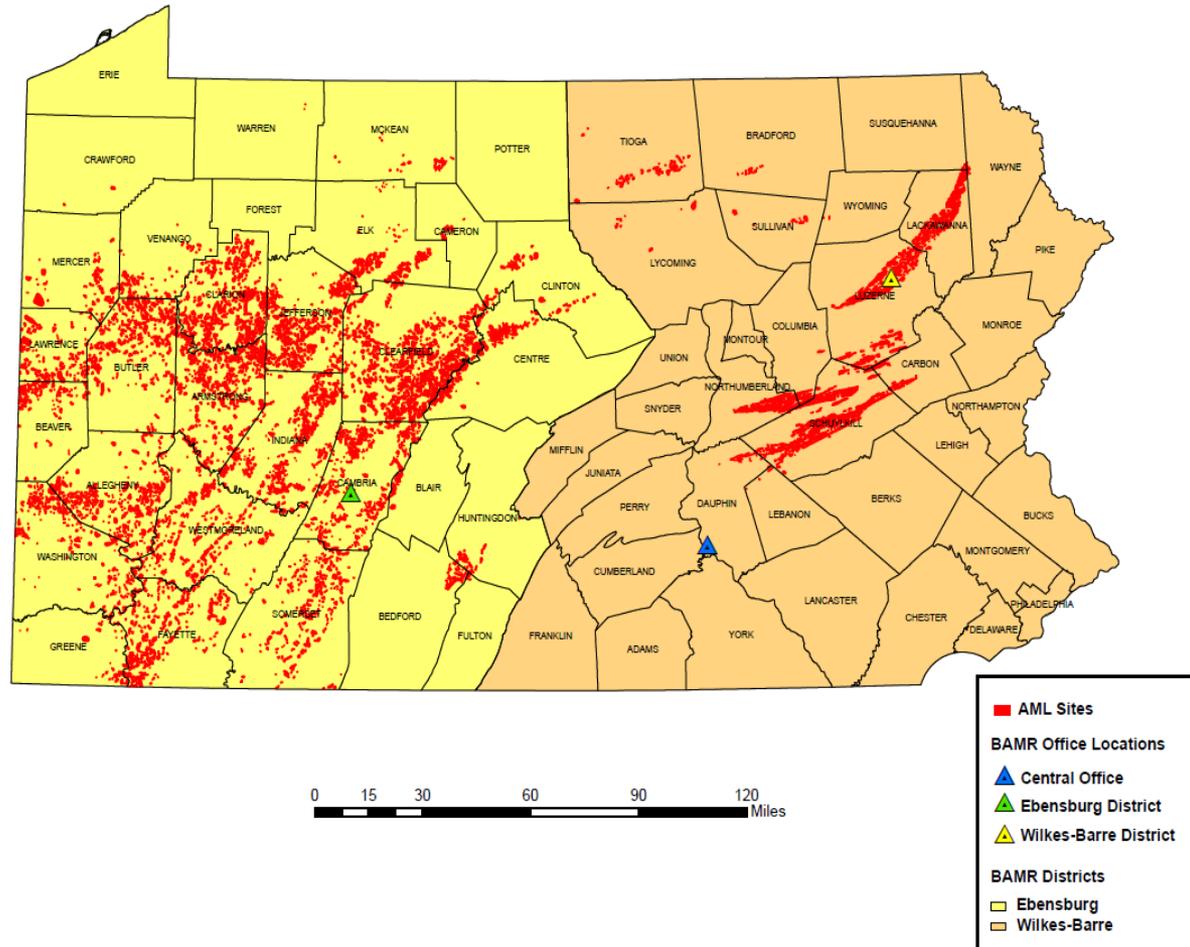
Tourist mines and caves – 13

Underground storage facilities – 10

Anthracite underground coal mines – 8

# Problems Caused by Past Coal Mining

- There were (pre 1977) nearly 250,000 acres of land and 5,500 stream miles negatively impacted by coal mining in the state
- Some of the problems caused by mining include:
  - Subsidence
  - Highwalls
  - Open shafts and portals
  - Polluted water supplies
  - Fires



# Bureaus

- Bureau of Mine Safety:
  - Inspection of all type of deep mines, equipment approvals, miner certification, emergency response.
- Bureau of Abandoned Mine Reclamation:
  - Project development, design, contracting, and oversight of abandoned mine land and acid mine drainage projects; Commonwealth operated treatment facilities; in-house construction crews for select subsidence events and other needs.

# Bureaus Continued

- Bureau of District Mining Operations:
  - Permitting and inspection of coal and non coal surface sites, deep mine permitting, development and oversight of treatment trusts, MSI program support.
- Bureau of Mining Programs:
  - Develop and implementation of policy, procedures, documents, scientific analysis, technical guidance, and statistical reporting in support of DEP's mine permitting, licensing, and compliance operations; manages MSI program.

# Staffing and Office Locations

- Total of 463 positions
- Bureau of Mine Safety - 55 positions
  - Offices in New Stanton and Pottsville
- Bureau of Abandoned Mine Reclamation – 173 positions
  - Offices in Ebensburg (Cambria), Wilkes-Barre, and Harrisburg
  - Eight Active Treatment Plants
- Bureau of District Mining Operations - 208 positions
  - Offices in Pottsville, Philipsburg (Moshannon), Knox, New Stanton, and California
- Bureau of Mining Programs - 24 positions
  - Located in Harrisburg
- Deputy's Office – 3 positions
  - Located in Harrisburg

# Funding

- Title IV, Surface Mining Control and Reclamation Act – 100% Federal
  - Bureau of Abandoned Mine Reclamation
- Title V, Surface Mining Control and Reclamation Act/ General Fund 50-50 Ratio
  - Bureau of District Mining Operations
  - Bureau of Mining Programs
- General Fund – 100% (also receives a Mine Health and Safety Administration grant)
  - Bureau of Mine Safety

# Annual Work Volumes

- Inspections completed – 22,000 (surface and deep)
- Permits issued – 650
- Reclamation - AML Program and Government Financed Construction Contracts
  - Total projects – 200 to 300
  - Acres reclaimed – 700 to 1,000
- AML potential problem assistance requests - 700
  - AML emergency projects – 50 to 100
- MSI policies – 61,000 (total)
- Miner certifications – 600
- Deep mine equipment approvals - 70

# BAMR - Reclamation Efforts

- In the last 5 years, DEP completed **1,012** abandoned mine projects and spent **\$120,530,700** (all sources; federal, capital budget)

Year	Projects Completed	USD Spent
2013	195	\$29,639,962
2014	224	\$30,710,551
2015	195	\$25,177,735
2016	172	\$14,213,954
2017	226	\$20,788,498

- Examples
  - Abandoned Mine Lands – Huling Branch (2017 OSMRE National AML Reclamation Award)
  - Mine Subsidence – Quick Subsidence, Green Valley School
  - Mine Fire – Jeansville, Phillips, Renton
  - Abandoned Mine Drainage – Cresson Treatment Plant

# BAMR Active Treatment Sites



Wildwood



Lancashire 15



Brandy Camp



Swamp Creek



B & T Mine 20



Hollywood



Little Toby and Coal Hollow



Rausch Creek

- Cumulative treatment impact is 107.5 miles.
- A ninth plant, Cresson, will be online by the end of 2018 and will treat approximately 21 stream miles.

# Act 54 Report Update

- November 2017 - Letter of Agreement Executed with the University of Pittsburgh
- April 2018 - Kick off meeting held with University of Pittsburgh
- Received requests from Citizen's Coal Council for data
  - Data was sent
- Reviewed Draft USGS Report on Flow Measurements in Small Watersheds
- Progress made on follow up items to the 4<sup>th</sup> Report

# Karst Work Group

- Part of Aggregate Advisory Board's Regulation, Legislation and Technical Committee
- Three meetings (most recent 7/16/18)
- Discussion has focused on mining permit application materials and hydrogeologic modelling

# Title IV SMCRA Reauthorization

- Coal fees of Title IV of the Surface Mining Control and Reclamation Act expire September 30, 2021
- Fees on each ton of coal mined fund AML projects
- The AML Trust Fund balance is about \$2.4 billion
- The existing AML inventory or projects is projected to be \$4 billion
- Pennsylvania has the greatest number of projects in the AML inventory

# AML Pilot

- The AML Pilot Program was authorized by Congress under the Consolidated Appropriations Act (signed by President Obama on December 18, 2015) and provides additional funding to PA's AML Program
  - For FFY 2016, it was \$30 million (16 projects)
  - For FFY 2017, it was \$25 million (10 projects)
  - For FFY 2018, it was \$25 million, accepting proposals through July
- The funds are to be used “for the reclamation of abandoned mine lands in conjunction with economic and community development and reuse goals”



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# Thank you!

*Please contact John at [jstefanko@pa.gov](mailto:jstefanko@pa.gov) with any questions.*