



TETRA TECH



41st American Society of Reclamation Sciences and the Appalachian Regional Reforestation Initiative Joint Conference

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Federally Funded Coal Abandoned Mine Land (AML) Program Overview

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TETRA TECH SNAPSHOT

WORKS IN
100+
COUNTRIES

7
CONTINENTS

Publicly traded
on NASDAQ as



\$5 billion
ANNUAL REVENUE

WORKS ON
100,000
PROJECTS
ANNUALLY

550 OFFICES
WORLDWIDE



ENR RANKINGS

- #1 Water Treatment/Desalination
- #1 Environmental Management
- #1 Wind Power
- #1 Hydro Plants

22,000 CLIENTS

28,000 EMPLOYEES



Industry Rankings: #1 Market Leading Positions

 <p>#1 ENR Engineering News-Record</p>	 <p>Water Treatment and Desalination</p>	 <p>Environmental Management</p>	 <p>Hydro Plants</p>
	<p>10 years in a row</p>	<p>15 years in a row</p>	<p>7 years in a row</p>

#3 in Top 500 Global Design Firms



Presentation – Items to be Covered

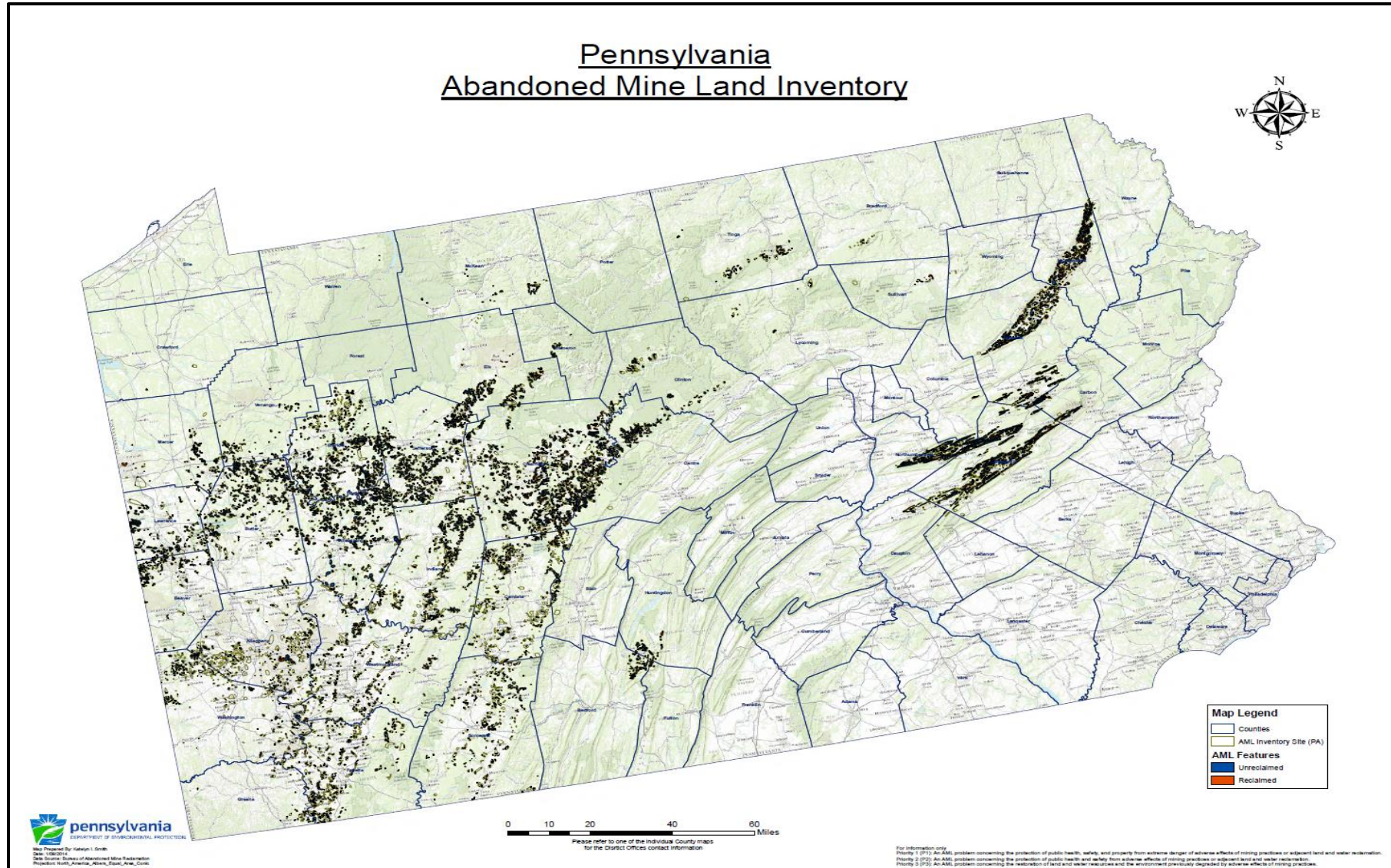
- History of Coal Abandoned Mine Land (AML) Funding
 - Fee-based AML Funding (SMCRA Title IV)
 - AML Economic Revitalization (AMLER) Funding
 - Infrastructure Investment and Jobs Act (IIJA) or Bipartisan Infrastructure Law (BIL) AML Funding
 - Associated STREAM ACT of 2022
- Summary of FY 2022, FY 2023, and FY 2024 Coal AML Funding by State/Tribe
- Selected Tetra Tech (Pittsburgh) Current and Ongoing AML or AMD Projects

How large is the Coal AML Problem? (PA Example)

AML Sites exist in 45 of Pennsylvania's 67 Counties

Nearly 10 % of Pennsylvania's Total Land Area is Underlain by Abandoned Underground Coal Mines

Over 100,000 Acres of AML and over 5,500 miles of AMD Impaired Streams



Coal AML Program Origins

Title IV of the Surface Mining Control and Reclamation Act of 1977 (**SMCRA**) created the AML Fund, which is funded primarily by a reclamation fee (also known as the **AML fee**) **assessed on each ton of coal produced** in the United States and which, among other things, **provides funding to eligible States and Tribes** for the **reclamation of coal mining sites abandoned** or left in an inadequate reclamation status as of August 3, 1977.

Reclamation Fee (a.k.a. AML fee)

- As originally enacted, section 402(a) of SMCRA fixed the reclamation fee at:
 - **35 cents per ton** (or 10 percent of the value of the coal, whichever was less) **for coal** other than lignite **produced by surface mining methods**
 - **15 cents per ton** (or 10 percent of the value of the coal, whichever was less) **for coal** other than lignite **produced from underground mines**, and
 - **10 cents per ton** (or 2 percent of the value of the coal, whichever was less) **for lignite**

Fee Collection Authority

- Section 402(b) of SMCRA first authorized collection of reclamation fees for 15 years following the date of SMCRA's enactment (August 3, 1977).
- Congress extended the fee collection authority through September 30, 1995, in the Omnibus Budget Reconciliation Act of 1990.
- The Energy Policy Act of 1992 extended the fee collection authority through September 30, 2004.
- A series of short interim extensions in appropriations and other acts extended the fee collection authority through September 30, 2007.

Fee Collection Authority

The Surface Mining Control and Reclamation Act Amendments of 2006 (**the 2006 amendments**) were signed into law on December 20, 2006, as part of the Tax Relief and Health Care Act of 2006. The 2006 amendments:

- extended the fee collection authority under section 402(b) through September 30, 2021, and
- reduced the reclamation fee rates in section 402(a) by 10 percent for the period from October 1, 2007, through September 30, 2012, and
- reduced the reclamation fee rates in section 402(a) by an additional 10 percent from the original levels for the period from October 1, 2012, through September 30, 2021.
- **Supplemented the Industry Fees with US Treasury Funding for the First Time.**

Reclamation Fee Rates

The fee rates from October 1, 2007, through September 30, 2012, required coal mine operators to pay:

- 31.5 cents per ton for coal produced by surface mining methods
- 13.5 cents per ton for coal produced from underground mines, and
- 9 cents per ton for lignite

Reclamation Fee Rates

The fee rates from October 1, 2012, through September 30, 2021, required coal mine operators to pay:

- 28 cents per ton for coal produced by surface mining methods
- 12 cents per ton for coal produced from underground mines, and
- 8 cents per ton for lignite

Fee Collection Authority - IIJA

The 2021 amendments, signed into law on November 15, 2021, as part of the **Infrastructure Investment and Jobs Act (a.k.a. IIJA** or Bipartisan Infrastructure Law (BIL)):

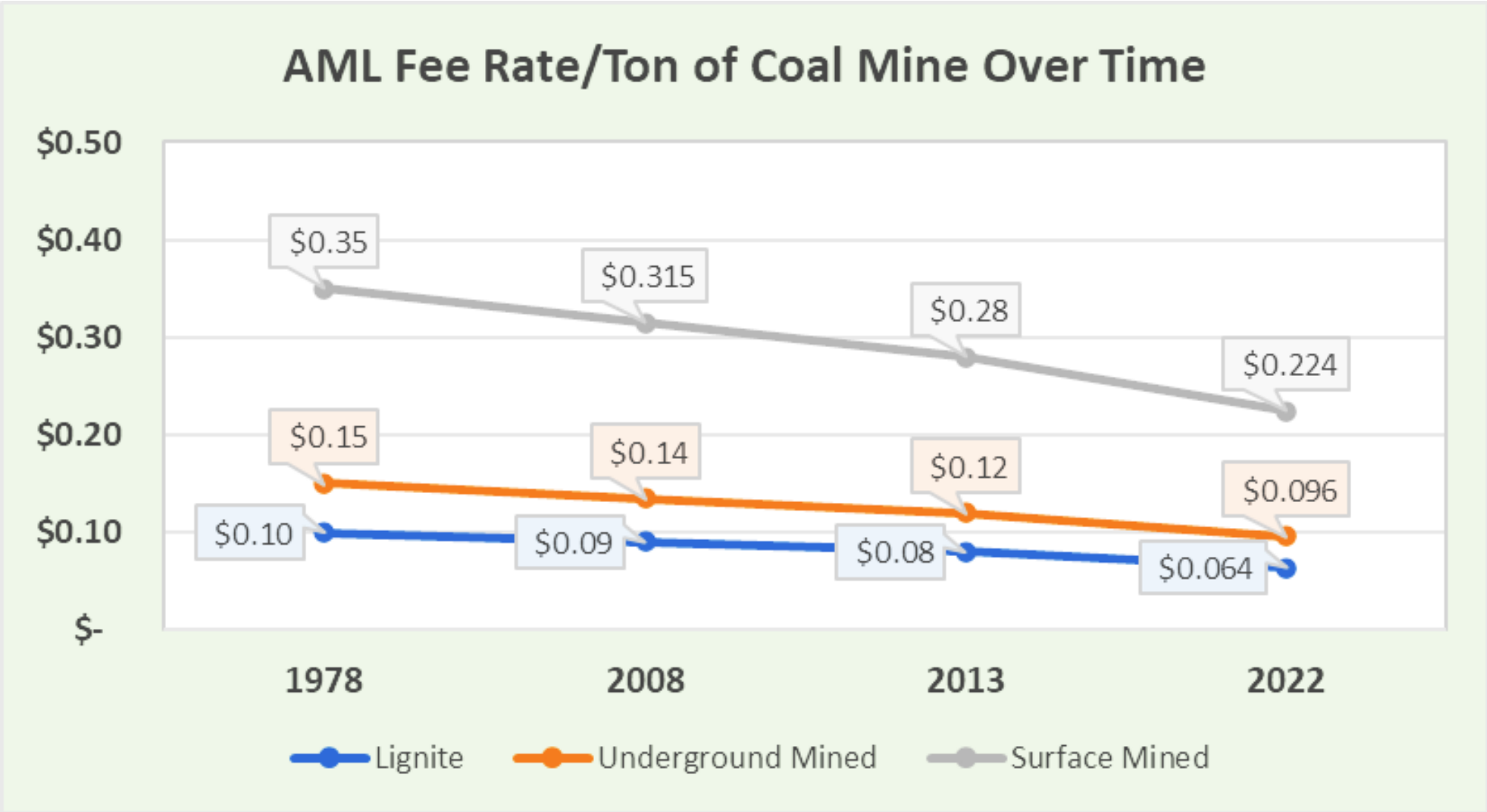
- extended the fee collection authority under section 402(b) through September 30, 2034, and
- reduced reclamation fee rates in section 402(a) by 20 percent from the prior rates

Reclamation Fee Rates

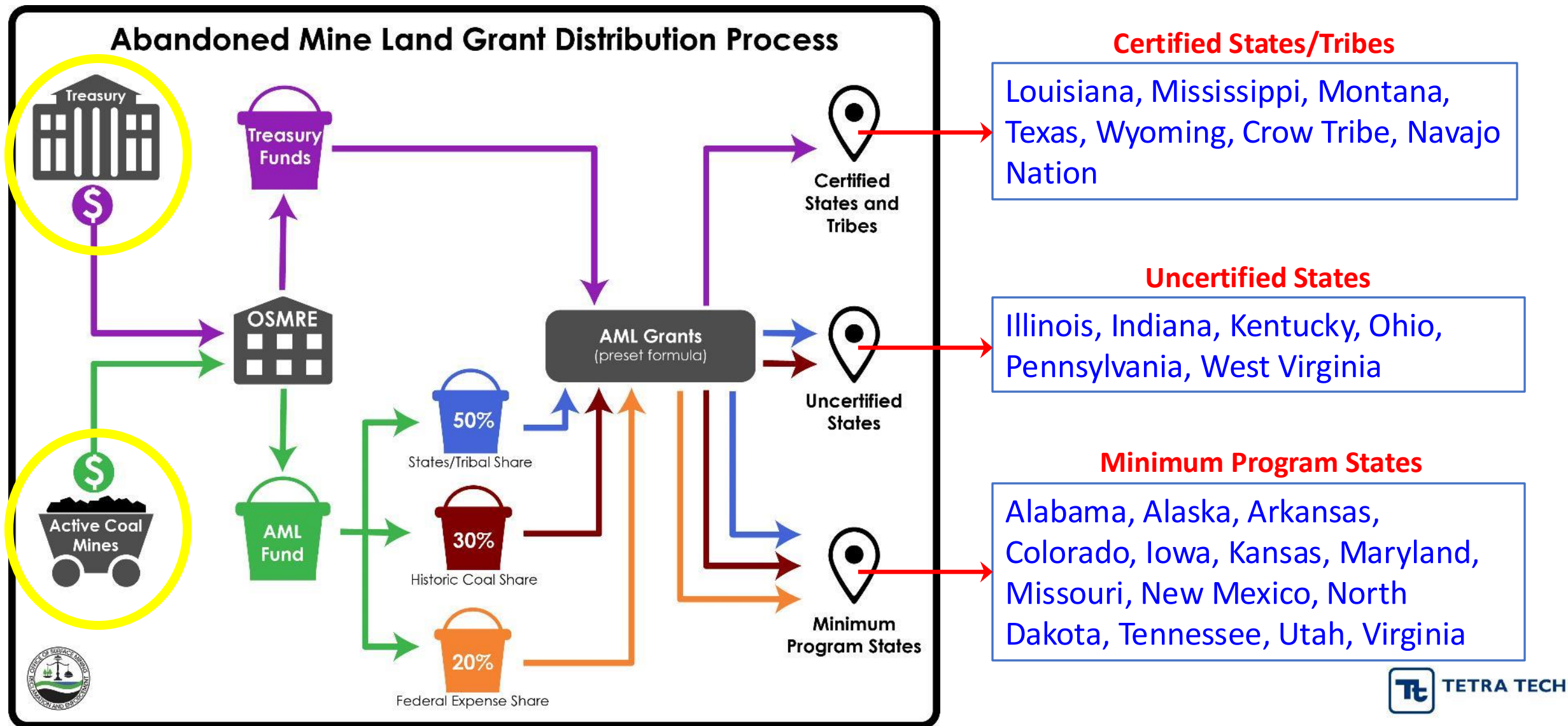
The fee rates from October 1, 2021, through September 30, 2034, require coal mine operators to pay:

- 22.4 cents per ton for coal produced by surface mining methods
- 9.6 cents per ton for coal produced from underground mines, and
- 6.4 cents per ton for lignite

Reclamation Fee Over Time



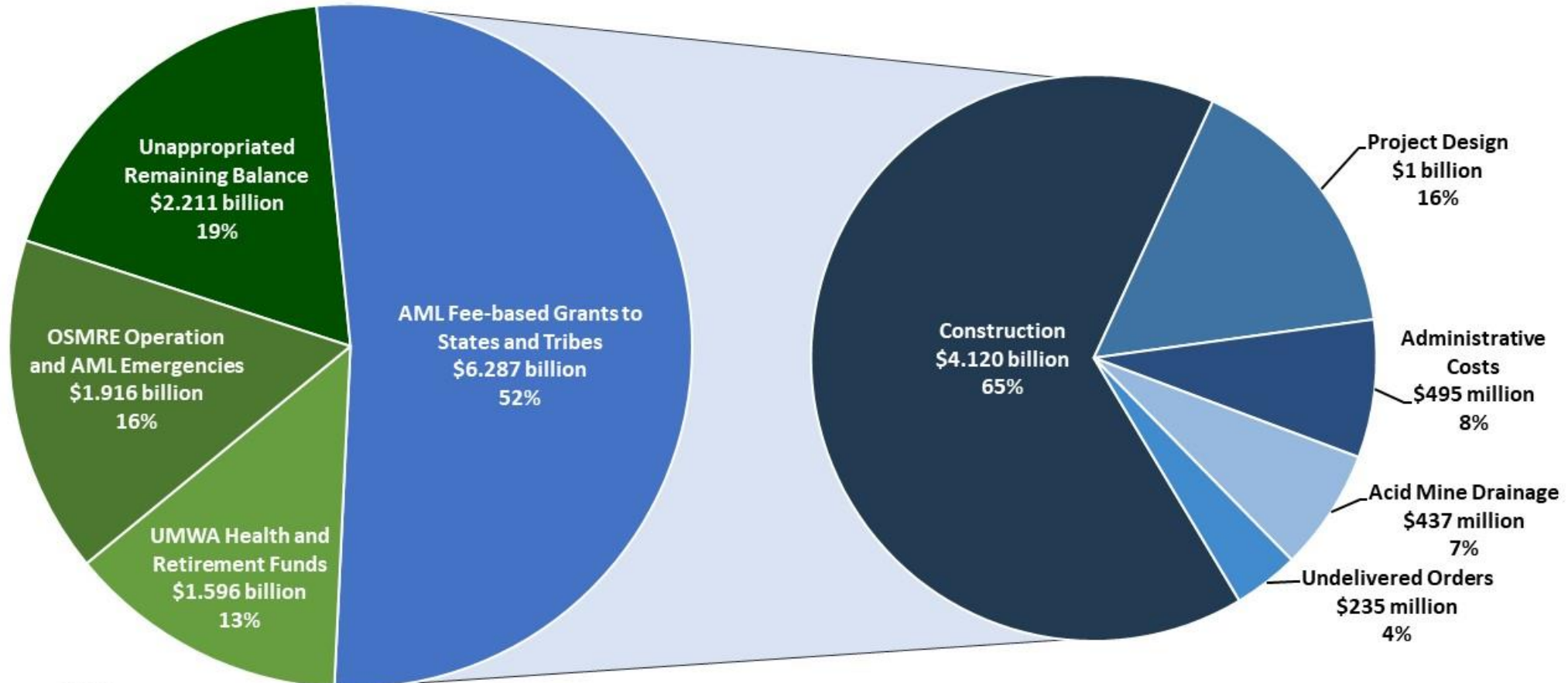
AML Grant Distribution Process



Status of the AML Fund as of 9/30/2022

Abandoned Mine Land (AML) Fee-based Reclamation Fund FY 1977 – FY 2022

Total \$12.010 Billion including Interest Earned, as of September 30, 2022



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 (e-AMLIS) only accounts for direct construction costs to reclaim each AML problem.

Other Provisions of the IIJA

- **\$11.3 billion of US Treasury funding** deposited into the AML Trust Fund for distribution to eligible states and tribes (i.e. those with an approved AML program). Both uncertified and certified* states and tribes are eligible for grants
- The funds are to be **distributed in equal, annual amounts over a 15-year period** based on the number of tons of coal historically produced in the state or tribe before August 3, 1977. Unlike the way historic coal production is used in the current formula for distribution of AML funds, all states and tribes (whether certified or uncertified) will be included and receive some level of funding.

*A State or Tribe “certifies” under section 411(a) of SMCRA when it has completed all known coal AML priorities.

IIJA Transformative Funding

Rank	Percent	Cumulative %	State	FY22 IIJA AML Funding	Total IIJA AML Funding Over 15 Years	Rank	Percent	Cumulative %	State	FY22 IIJA AML Funding	Total IIJA AML Funding Over 15 Years
1	33.8%	33.8%	Pennsylvania	\$244,904,000	\$3,673,560,000	14	0.8%	96.0%	Utah	\$5,769,000	\$86,535,000
2	19.4%	53.2%	West Virginia	\$140,751,000	\$2,111,265,000	15	0.7%	96.7%	Kansas	\$4,855,000	\$72,825,000
3	10.5%	63.7%	Illinois	\$75,763,000	\$1,136,445,000	16	0.7%	97.3%	Maryland	\$4,812,000	\$72,180,000
4	10.2%	73.9%	Kentucky	\$74,253,000	\$1,113,795,000	17	0.6%	98.0%	Montana	\$4,601,000	\$69,015,000
5	6.4%	80.3%	Ohio	\$46,444,000	\$696,660,000	18	0.5%	98.5%	Oklahoma	\$3,492,000	\$52,380,000
6	3.4%	83.7%	Indiana	\$24,666,000	\$369,990,000	19	0.4%	98.9%	North Dakota	\$3,102,000	\$46,530,000
7	3.1%	86.9%	Virginia	\$22,790,000	\$341,850,000	20	0.3%	99.2%	New Mexico	\$2,423,000	\$36,345,000
8	2.8%	89.7%	Alabama	\$20,451,000	\$306,765,000	21	0.2%	99.5%	Arkansas	\$1,700,000	\$25,500,000
9	1.4%	91.1%	Colorado	\$9,967,000	\$149,505,000	22	0.2%	99.7%	Navajo Nation	\$1,662,000	\$24,930,000
10	1.3%	92.4%	Wyoming	\$9,697,000	\$145,455,000	23	0.2%	99.9%	Alaska	\$1,333,000	\$19,995,000
11	1.2%	93.6%	Tennessee	\$8,578,000	\$128,670,000	24	0.1%	100.0%	Texas	\$986,000	\$14,790,000
12	0.8%	94.4%	Iowa	\$5,988,000	\$89,820,000						
13	0.8%	95.2%	Missouri	\$5,862,000	\$87,930,000						
									Total	\$724,849,000	\$10,872,735,000

Other Provisions of the IIJA

- The total amount of grant funding for any state or tribe shall not be less than \$20 million over the 15-year period, but only to the extent that a state and tribe has sufficient “covered activities” to substantiate the need for this funding.
- Grants from these funds are in addition to those otherwise received by states and tribes under the existing AML program
- The funds can only be used for “covered activities”. This is limited to the work permitted by subsections 403(a) (i.e. **Priority 1, 2 and 3 Projects**), 403(b) (i.e., **Water Supply Replacement Projects**) and section 410 (i.e. **AML Emergency Projects**).

Other Provisions of the IIJA

- The Secretary of the Interior is required to report to Congress on progress made with the funds six years after the date on which the first distribution of grant funding occurs.
- 20 years after the date of enactment of the Act, the Secretary of the Interior is required to evaluate grants to states and tribes. Following that evaluation, states and tribes are required to return any unused funds to the AML Trust Fund.
- The bill allows/encourages priority to be given to reclamation projects that employ current or former employees of the coal industry.
- States and tribes are authorized to aggregate bids under these grants into larger statewide or regional contracts.
- \$25 million is reserved for use by the Secretary and states and tribes for financial and technical assistance for the purpose of making amendments to the AML inventory under section 403(c) of SMCRA. **

Abandoned Mine Land (AML) Economic Revitalization (AMLER) Program

- Since federal fiscal year FY 2016, the US Congress has appropriated US Treasury Funding each year to selected states and Indian tribes to undertake AML reclamation projects that include or facilitate economic revitalization or that provide other community benefits.
- Funding has been granted to the six Appalachian States with the largest Inventory of unreclaimed AML and to the three Indian Tribes – Navajo, Hopi, and Crow.

Abandoned Mine Land (AML) Economic Revitalization (AMLER) Program

- The Abandoned Mine Land Economic Revitalization (AMLER) Program, formerly known as the AML Pilot Program is administered by the Office of Surface Mining Reclamation and Enforcement (OSMRE).
- The AMLER Program funds are to be used **“for the reclamation of abandoned mine lands in conjunction with economic and community development and reuse goals”**.
- The intent of the program is to explore and implement strategies that **“return legacy coal mining sites to productive uses through economic and community development”**.
- The AMLER Program supports local investment opportunities that provide for **“sustainable long-term revitalization of coalfield economies”**.

Abandoned Mine Land (AML) Economic Revitalization (AMLER) Program

- The AMLER Program is an opportunity for states, tribes, and local communities to collaboratively **return impacted areas to productive reuse** and achieve the economic and community development goals identified for the community and/or region.
- State and Tribal AML Programs, in consultation with state, tribal, and local economic and community development authorities, develop eligible projects with a nexus to AML land and water reclamation and economic/community development.
- AMLER funds can be **used to reclaim impacted lands/waters and/or for end-use development of the site.**

AMLER Funding by State/Tribe Since 2016

AML Economic Revitalization (AMLER) Program - Historic Distributions (2016-2024)

State/Tribe	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total (FY 2016-FY 2024)
Alabama		\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,652,111	\$ 11,739,333	\$ 11,000,000	\$ 83,391,444
Kentucky	\$30,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 10,000,000	\$ 26,630,111	\$ 29,347,333	\$ 28,666,667	\$ 224,644,111
Ohio		\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 25,000,000	\$ 10,652,111	\$ 11,739,333	\$ 11,000,000	\$ 98,391,444
Pennsylvania	\$30,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 26,630,111	\$ 29,347,333	\$ 28,666,667	\$ 239,644,111
Virginia		\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,652,111	\$ 11,739,333	\$ 11,000,000	\$ 83,391,444
West Virginia	\$30,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 25,000,000	\$ 26,630,111	\$ 29,347,333	\$ 28,666,667	\$ 239,644,111
Crow Tribe			\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,551,111	\$ 3,913,333	\$ 3,666,667	\$ 24,464,444
Hopi Tribe			\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,551,111	\$ 3,913,333	\$ 3,666,667	\$ 24,464,444
Navajo Tribe			\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,333,333	\$ 3,551,111	\$ 3,913,333	\$ 3,666,667	\$ 24,464,444
Totals	\$90,000,000	\$105,000,000	\$115,000,000	\$115,000,000	\$115,000,000	\$115,000,000	\$122,500,000	\$135,000,000	\$130,000,000	\$ 1,042,500,000

Over **\$1 billion** Allocated through FY 2024

STREAM Act of 2022

The “STREAM Act”, also known as the “Safeguarding Treatment for the Restoration of Ecosystems from Abandoned Mines Act” was passed by Congress in December of 2022

- The Act allows **up to 30 percent** of the total amount **of a state or tribe’s annual IJA AML grant** may be deposited into a **long-term abandoned mine land reclamation fund** for:
 - 1) the abatement of the causes and the treatment of the effects of **acid mine drainage** resulting from coal mining practices, including for the costs of building, operating, maintaining, and rehabilitating acid mine drainage treatment systems
 - 2) the prevention, abatement, and control of **subsidence**, or
 - 3) the prevention, abatement, and control of **coal mine fires**

FY 2022 Coal AML Funding by State

NAAML P States/Tribes Total Coal AML Funding for Federal FY2022

State/Tribe	FY22 BIL AML Funding*	FY22 Title IV AML Funding	FY22 AMLER Funding	FY22 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
Pennsylvania	\$244,904,000	\$26,463,897	\$26,600,000	\$297,967,897	30.05%	30.05%	1
West Virginia	\$140,751,000	\$18,480,441	\$26,600,000	\$185,831,441	18.74%	48.78%	2
Kentucky	\$74,253,000	\$8,889,292	\$26,600,000	\$109,742,292	11.07%	59.85%	3
Illinois	\$75,763,000	\$9,689,419	\$0	\$85,452,419	8.62%	68.47%	4
Ohio	\$46,444,000	\$4,699,156	\$10,600,000	\$61,743,156	6.23%	74.69%	5
Wyoming	\$9,697,000	\$30,415,530	\$0	\$40,112,530	4.04%	78.74%	6
Virginia	\$22,790,000	\$2,960,771	\$10,600,000	\$36,350,771	3.67%	82.40%	7
Alabama	\$20,451,000	\$2,829,000	\$10,600,000	\$33,880,000	3.42%	85.82%	8
Indiana	\$24,666,000	\$3,944,417	\$0	\$28,610,417	2.88%	88.70%	9
Colorado	\$9,967,000	\$2,829,000	\$0	\$12,796,000	1.29%	89.99%	10
Tennessee	\$8,578,000	\$2,829,000	\$0	\$11,407,000	1.15%	91.14%	11
Iowa	\$5,988,000	\$2,829,000	\$0	\$8,817,000	0.89%	92.03%	12
Missouri	\$5,862,000	\$2,829,000	\$0	\$8,691,000	0.88%	92.91%	13
Utah	\$5,769,000	\$2,829,000	\$0	\$8,598,000	0.87%	93.78%	14
Montana	\$4,601,000	\$3,287,963	\$0	\$7,888,963	0.80%	94.57%	15
Kansas	\$4,855,000	\$2,829,000	\$0	\$7,684,000	0.77%	95.35%	16
Maryland	\$4,812,000	\$2,829,000	\$0	\$7,641,000	0.77%	96.12%	17



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FY 2022 Coal AML Funding by State

NAAML P States/Tribes Total Coal AML Funding for Federal FY2022

State/Tribe	FY22 BIL AML Funding*	FY22 Title IV AML Funding	FY22 AMLER Funding	FY22 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
North Dakota	\$3,102,000	\$2,829,000	\$0	\$5,931,000	0.60%	96.72%	18
Navajo Nation	\$1,662,000	\$525,510	\$3,630,000	\$5,817,510	0.59%	97.30%	19
New Mexico	\$2,423,000	\$2,829,000	\$0	\$5,252,000	0.53%	97.83%	20
Arkansas	\$1,700,000	\$2,829,000	\$0	\$4,529,000	0.46%	98.29%	21
Alaska	\$1,333,000	\$2,829,000	\$0	\$4,162,000	0.42%	98.71%	22
Crow Tribe	\$0	\$216,529	\$3,630,000	\$3,846,529	0.39%	99.10%	23
Oklahoma **	\$3,492,000	\$0	\$0	\$3,492,000	0.35%	99.45%	24
Hopi Tribe	\$0	\$0	\$3,630,000	\$3,630,000	0.37%	99.81%	25
Texas	\$986,000	\$732,134	\$0	\$1,718,134	0.17%	99.99%	26
Mississippi	\$0	\$99,709	\$0	\$99,709	0.01%	100.00%	27
Louisiana	\$0	\$25,279	\$0	\$25,279	0.00%	100.00%	28
Arizona	\$0	\$0	\$0	\$0	0.00%	100.00%	29
California	\$0	\$0	\$0	\$0	0.00%	100.00%	30
Idaho	\$0	\$0	\$0	\$0	0.00%	100.00%	31
Nevada	\$0	\$0	\$0	\$0	0.00%	100.00%	32
Totals ->	\$724,849,000	\$144,378,047	\$122,490,000	\$991,717,047	100.00%	<-Totals	

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FY 2023 Coal AML Funding by State

NAAMLPL States/Tribes Total Coal AML Funding for Federal FY2023

State/Tribe	FY23 BIL AML Funding*	FY23 Title IV AML Funding	FY23 AMLER Funding	FY23 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
Pennsylvania	\$244,904,000	\$21,850,173	\$29,347,333	\$296,101,506	29.96%	29.96%	1
West Virginia	\$140,751,000	\$15,601,223	\$29,347,333	\$185,699,556	18.79%	48.75%	2
Kentucky	\$74,253,000	\$7,525,253	\$29,347,333	\$111,125,586	11.24%	59.99%	3
Illinois	\$75,763,000	\$7,790,105	\$0	\$83,553,105	8.45%	68.44%	4
Ohio	\$46,444,000	\$3,924,880	\$11,739,333	\$62,108,213	6.28%	74.73%	5
Virginia	\$22,790,000	\$2,829,000	\$11,739,333	\$37,358,333	3.78%	78.51%	6
Wyoming	\$9,697,000	\$25,900,397	\$0	\$35,597,397	3.60%	82.11%	7
Alabama	\$20,451,000	\$2,829,000	\$11,739,333	\$35,019,333	3.54%	85.65%	8
Indiana	\$24,666,000	\$3,386,346	\$0	\$28,052,346	2.84%	88.49%	9
Colorado	\$9,967,000	\$2,829,000	\$0	\$12,796,000	1.29%	89.79%	10
Tennessee	\$8,578,000	\$2,829,000	\$0	\$11,407,000	1.15%	90.94%	11
Iowa	\$5,988,000	\$2,829,000	\$0	\$8,817,000	0.89%	91.83%	12
Missouri	\$5,862,000	\$2,829,000	\$0	\$8,691,000	0.88%	92.71%	13
Utah	\$5,769,000	\$2,829,000	\$0	\$8,598,000	0.87%	93.58%	14
Kansas	\$4,855,000	\$2,829,000	\$0	\$7,684,000	0.78%	94.36%	15
Maryland	\$4,812,000	\$2,829,000	\$0	\$7,641,000	0.77%	95.13%	16

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FY 2023 Coal AML Funding by State

NAAMLPL States/Tribes Total Coal AML Funding for Federal FY2023

State/Tribe	FY23 BIL AML Funding*	FY23 Title IV AML Funding	FY23 AMLER Funding	FY23 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
Montana	\$4,601,000	\$2,376,269	\$0	\$6,977,269	0.71%	95.84%	17
Navajo Nation	\$1,662,000	\$536,224	\$3,913,333	\$6,111,557	0.62%	96.46%	18
North Dakota	\$3,102,000	\$2,829,000	\$0	\$5,931,000	0.60%	97.06%	19
New Mexico	\$2,423,000	\$2,829,000	\$0	\$5,252,000	0.53%	97.59%	20
Arkansas	\$1,700,000	\$2,829,000	\$0	\$4,529,000	0.46%	98.05%	21
Alaska	\$1,333,000	\$2,829,000	\$0	\$4,162,000	0.42%	98.47%	22
Crow Tribe	\$0	\$226,533	\$3,913,333	\$4,139,866	0.42%	98.89%	23
Hopi Tribe	\$0	\$0	\$3,913,333	\$3,913,333	0.40%	99.28%	24
Oklahoma **	\$3,492,000	\$0	\$0	\$3,492,000	0.35%	99.64%	25
Texas	\$986,000	\$511,455	\$0	\$1,497,455	0.15%	99.79%	26
Mississippi	\$0	\$91,848	\$0	\$91,848	0.01%	99.80%	27
Louisiana	\$0	\$11,505	\$0	\$11,505	0.00%	99.80%	28
Arizona	\$0	\$0	\$0	\$0	0.00%	99.80%	29
California	\$0	\$0	\$0	\$0	0.00%	99.80%	30
Idaho	\$0	\$0	\$0	\$0	0.00%	99.80%	31
Nevada	\$0	\$0	\$0	\$0	0.00%	99.80%	32
Totals ->	\$724,849,000	\$126,509,211	\$135,000,000	\$986,358,211	100.00%	<-Totals	

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FY 2024 Coal AML Funding by State

NAAMLPL States/Tribes Total Coal AML Funding for Federal FY2024

State/Tribe	FY24 BIL AML Funding*	FY24 Title IV AML Funding	FY24 AMLER Funding	FY24 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
Pennsylvania	\$244,904,000	\$21,482,485	\$28,666,667	\$ 295,053,152	30.12%	30.12%	1
West Virginia	\$140,751,000	\$15,308,392	\$28,666,667	\$ 184,726,059	18.86%	48.97%	2
Kentucky	\$74,253,000	\$7,400,010	\$28,666,667	\$ 110,319,677	11.26%	60.23%	3
Illinois	\$75,763,000	\$7,714,447	\$0	\$ 83,477,447	8.52%	68.75%	4
Ohio	\$46,444,000	\$3,818,252	\$11,000,000	\$ 61,262,252	6.25%	75.01%	5
Virginia	\$22,790,000	\$2,829,000	\$11,000,000	\$ 36,619,000	3.74%	78.75%	6
Wyoming	\$9,697,000	\$25,221,856	\$0	\$ 34,918,856	3.56%	82.31%	7
Alabama	\$20,451,000	\$2,829,000	\$11,000,000	\$ 34,280,000	3.50%	85.81%	8
Indiana	\$24,666,000	\$3,433,097	\$0	\$ 28,099,097	2.87%	88.68%	9
Colorado	\$9,967,000	\$2,829,001	\$0	\$ 12,796,001	1.31%	89.98%	10
Tennessee	\$8,578,000	\$2,829,000	\$0	\$ 11,407,000	1.16%	91.15%	11
Iowa	\$5,988,000	\$2,829,000	\$0	\$ 8,817,000	0.90%	92.05%	12
Missouri	\$5,862,000	\$2,829,000	\$0	\$ 8,691,000	0.89%	92.93%	13
Utah	\$5,769,000	\$2,829,000	\$0	\$ 8,598,000	0.88%	93.81%	14
Kansas	\$4,855,000	\$2,829,000	\$0	\$ 7,684,000	0.78%	94.60%	15
Maryland	\$4,812,000	\$2,829,000	\$0	\$ 7,641,000	0.78%	95.38%	16



Signifies that Tetra Tech has a Contract for AML Consulting

FY 2024 Coal AML Funding by State

NAAMLPL States/Tribes Total Coal AML Funding for Federal FY2024

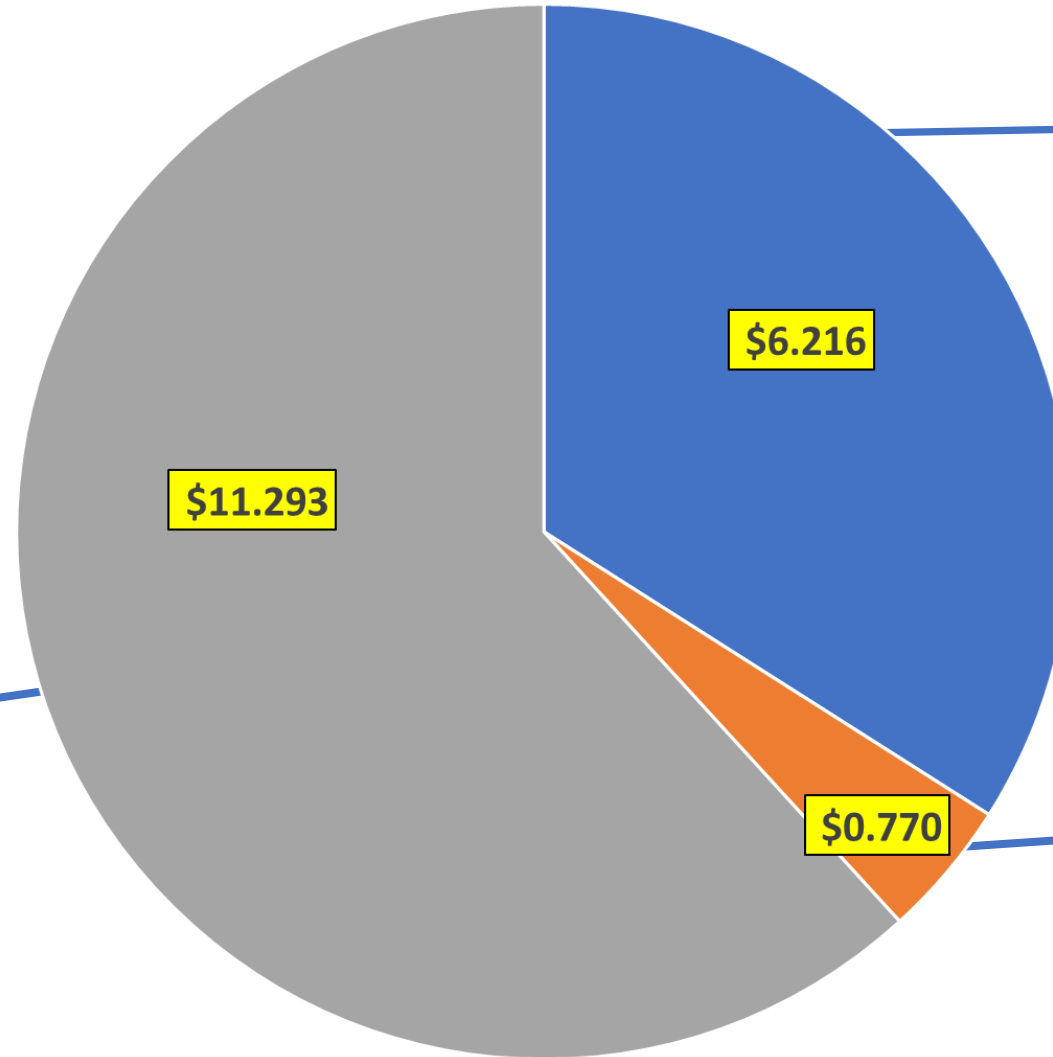
State/Tribe	FY24 BIL AML Funding*	FY24 Title IV AML Funding	FY24 AMLER Funding	FY24 Total AML Funding	Percent of Total AML \$	Cumulative Percent (%)	Rank
Montana	\$4,601,000	\$2,339,953	\$0	\$ 6,940,953	0.71%	96.09%	17
North Dakota	\$3,102,000	\$2,829,000	\$0	\$ 5,931,000	0.61%	96.69%	18
Navajo Nation	\$1,662,000	\$544,169	\$3,666,667	\$ 5,872,836	0.60%	97.29%	19
New Mexico	\$2,423,000	\$2,829,001	\$0	\$ 5,252,001	0.54%	97.83%	20
Arkansas	\$1,700,000	\$2,829,000	\$0	\$ 4,529,000	0.46%	98.29%	21
Alaska	\$1,333,000	\$2,828,999	\$0	\$ 4,161,999	0.42%	98.71%	22
Crow Tribe	\$0	\$190,162	\$3,666,667	\$ 3,856,829	0.39%	99.11%	23
Hopi Tribe	\$0	\$92,422	\$3,666,667	\$ 3,759,089	0.38%	99.49%	24
Oklahoma **	\$3,492,000	\$0	\$0	\$ 3,492,000	0.36%	99.85%	25
Texas	\$986,000	\$8,675	\$0	\$ 994,675	0.10%	99.95%	26
Mississippi	\$0	\$489,762	\$0	\$ 489,762	0.05%	100.00%	27
Louisiana	\$0	\$11,505	\$0	\$ 11,505	0.00%	100.00%	28
Arizona	\$0	\$0	\$0	\$ -	0.00%	100.00%	29
California	\$0	\$0	\$0	\$ -	0.00%	100.00%	30
Idaho	\$0	\$0	\$0	\$ -	0.00%	100.00%	31
Nevada	\$0	\$0	\$0	\$ -	0.00%	100.00%	32
Totals ->	\$724,849,000	\$ 124,832,188	\$130,000,000	\$ 979,681,188	100.00%	<-Totals	



Signifies that Tetra Tech has a Contract for AML Consulting

Increasing AML Reclamation Funding (As of 2022)

Abandoned Mine Land Reclamation Funding (Billions \$)



Total SMCRA Title IV Funding Appropriated (FY1977-FY2021)

\$6.216 Billion

Last 45 Years

Total AML Funding from the Infrastructure Investment and Jobs Act (FY2022-FY2036)

\$11.293 Billion

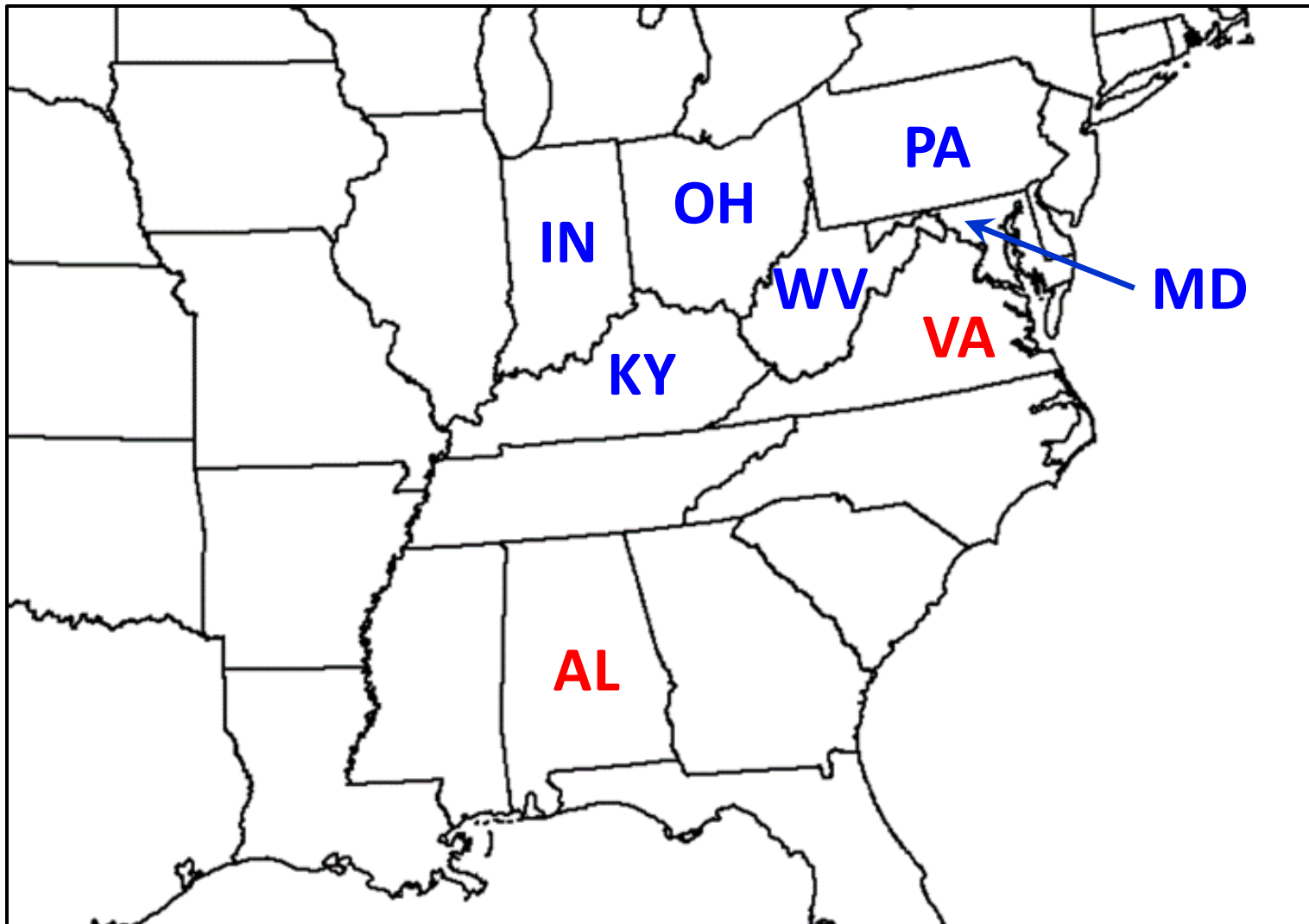
Next 15 Years

Total AML Funding from the AMLER (a.k.a AML Pilot) Program (FY2016-FY2022)

\$0.770 Billion

Last 7 Years

Tetra Tech OGA Pittsburgh Contracts & Pursuits by State



States with AML Contracts

- Pennsylvania
- West Virginia
- Ohio
- Maryland
- Kentucky
- Indiana

States where Tt is Pursuing/Monitoring Potential AML Contracts

- Alabama
- Virginia

Status of AML Funding and Projects

- Nearly **\$3 billion** of AML funding has been (or will be soon) granted to states for coal AML reclamation and economic revitalization (**FY2022 \$991M; FY2023 \$986M; FY2024 \$976M**) [*Very little funding for hardrock AML work*]
- States have obligated only a very small amount of the funding for a variety of reasons
 - Lack of adequate staffing
 - Lack of direction & guidance from the federal oversight agency, OSM
- Pennsylvania is granting out AML Funding (4 rounds in '23 and 3 in '24)
- All states granting out AMLER AML funding (PA, OH, WV, KY, AL, and VA)
- Work should be continuing to ramp up in 2024 and beyond

Selected Current Tetra Tech (Pittsburgh Office) AML Projects

Selected Tetra Tech AML/AMD Projects

- Banning/WNCL Coal Refuse Pile Reclamation Project – PA
- West Virginia Contract 9 (Stream Dosers and AMD Control)– WV
- Magnolia Ranch/Snow Fork Dosers/ Powelson Wildlife Area – OH
- Dolph Underground Mine Fire Project - PA
- Ashland North Subsidence Control Project – KY
- Enoco Mine AML Coal Refuse Pile Alternatives Analysis – IN
- Blacklick Creek AMD Treatment Plant – PA

Banning/WNCL Coal Refuse Pile Reclamation Project – PA

The primary goals of the project are to:

- Eliminate or abate public health and safety issues associated with this site
- Develop a regrading plan to facilitate the redevelopment of the site for solar development
- Regrade and stabilize the refuse embankments and three fine coal refuse slurry impoundments (Two are classified as low-hazard dams)
- Incorporate a suitable cover material/growth medium
- Incorporate stormwater management features to control erosion & sediment transport
- Incorporate features that minimize or neutralize the production of acid mine drainage
- Provide adequate soil conditioning and revegetation
- Provide bid-ready Drawings and Specifications (and permits) for the project

WV 2022 AML CONTRACT 9 - North

The WV AML Contract 9 – North includes three Project Areas

- **Project 1 - Three Fork Creek Watershed Restoration Project**

- Existing Three Fork Restoration Stream Dosers were installed ~12 years ago. (All to be replaced)
 - Raccoon Run Doser, South Birds Creek Doser, Squires Creek Doser, and Pell Road Doser

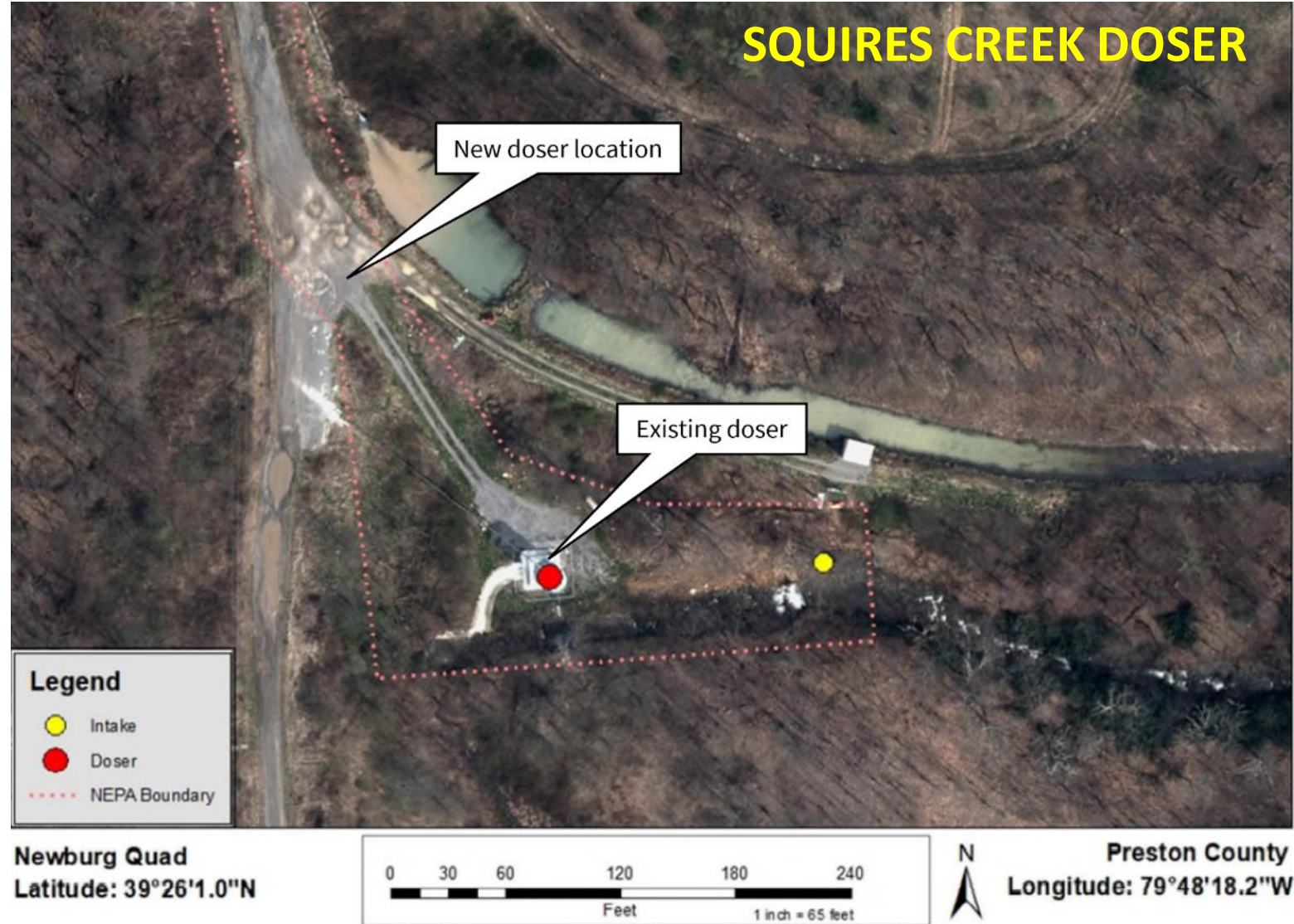
- **Project 2 -Abram Creek AMD Treatment Phase II Project**

- Existing Abram Creek Restoration Stream Dosers were installed ~10 years ago. (All to be replaced)
 - Abram Creek Doser, Little Creek Doser, and Morgan 25 Doser
 - Blackwater Doser to have New Instrumentation

- **Project 3 - Richard (Shaver) Drainage project**

- AMD from abandoned underground mines is affecting WV Route 7 and flooding basements with AMD contaminated groundwater in the Village of Richard
 - Project Goal is to reduce existing water level in mine & pump to new Richard AMD treatment Facility
 - Treating this AMD will further enhance the restoration of the Deckers Creek Watershed.

WV AML Contract 9 North Doser Replacements



Richard Mine Drainage Project



Powelson Run Wildlife Area AML Project – OH

The primary goals of the project are to:

- Eliminate or abate public health and safety issues associated with this site
- **The project involves reclamation of approximately 140 acres of abandoned strip mined lands.**
- The primary goal of the project is to eliminate an estimated 14,000 linear feet (L.F.) of highwall utilizing the adjacent spoil material and regrading the site to approximate original contours.
- **Wetland and Stream Delineation and Ecological Permitting**
- Incorporate stormwater management features to control erosion and sediment transport
- **Provide adequate soil conditioning and revegetation**
- **Provide bid-ready Drawings and Specifications for the project**

Dolph Mine Fire Extinguishment Project – PA

The primary goals of the project are to:

- Eliminate or abate public health and safety issues associated with this site
- Develop a water supply for quenching of the burning material
- Excavate and extinguish the underground mine fire
- Regrade and stabilize the site
- Incorporate stormwater management features to control erosion and sediment transport
- Incorporate features that protect the health and safety of the contractor's employees
- Provide adequate soil conditioning and revegetation
- Provide bid-ready Drawings and Specifications (and permits) for the project

Enoco Mine AML Site – Alternatives Analysis – IN



Enoco Mine AML Site – Alternatives Analysis – IN

The intent of the Enoco Feasibility Study is to evaluate various alternatives and the feasibility of each that would ameliorate the AMD discharges associated with the Enoco Mine Coal Refuse Pile site which are impairing the South Fork of Smalls Creek.

Alternatives and/or combined alternatives to be considered include:

- Removal of the refuse pile material from the site to include potential underground injection
- Removal of the refuse pile material which can be marketed as fuel or supplemented to make it acceptable as a fuel
- Re-affect the previously reclaimed pile to reconfigure the site to minimize or eliminate the AMD discharges
- Neutralize the acid forming materials within the pile with an acceptable alkaline additive
- Compare alternatives to eliminate the AMD to costs to reconfigure and rebuild the underperforming passive treatment system located at the site
- Consider and evaluate semi-active treatment of the AMD discharges.

Refuse Boring – Monitoring Well

Refuse Boring – No Monitoring Well

Ashland North Mine Subsidence Control Project – KY

- Based on information provided to Tetra Tech by KY DAML, the City of Ashland has a documented history of nearly 200 AML investigations with many focused on potential mine subsidence.
- Within the larger complaint cluster, there have been over 50 AML investigations conducted in the vicinity of Chinn Street.
- The Ashland North Mine Subsidence Project will focus on the Chinn Street area to:
 - Compile and review past mine subsidence claims and reports
 - Review past underground coal mining and evaluate the cause of the subsidence issues
 - Determine the potential for additional mine subsidence
 - Develop and implement a mine subsidence control project

Blacklick Creek AMD Treatment Plant Project – PA



Eliminate three uncontrolled discharges of untreated mine water within Blacklick Creek Watershed from three abandoned mine complexes.



Restore North Branch Blacklick Creek and the main stem of Blacklick Creek down to its confluence with Two Lick Creek (~25 stream miles) to make it a viable sport fishery.



Treat mine pool water to meet effluent standards.



Lower and maintain Wehrum and Vinton No. 6 mine pools levels to provide storage capacity for 30 days of maximum inflow.



Provide for in mine disposal/storage of injected mine water treatment sludge.

Blacklick Creek AMD Treatment Plant Project – PA



Thank You!

Questions?

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