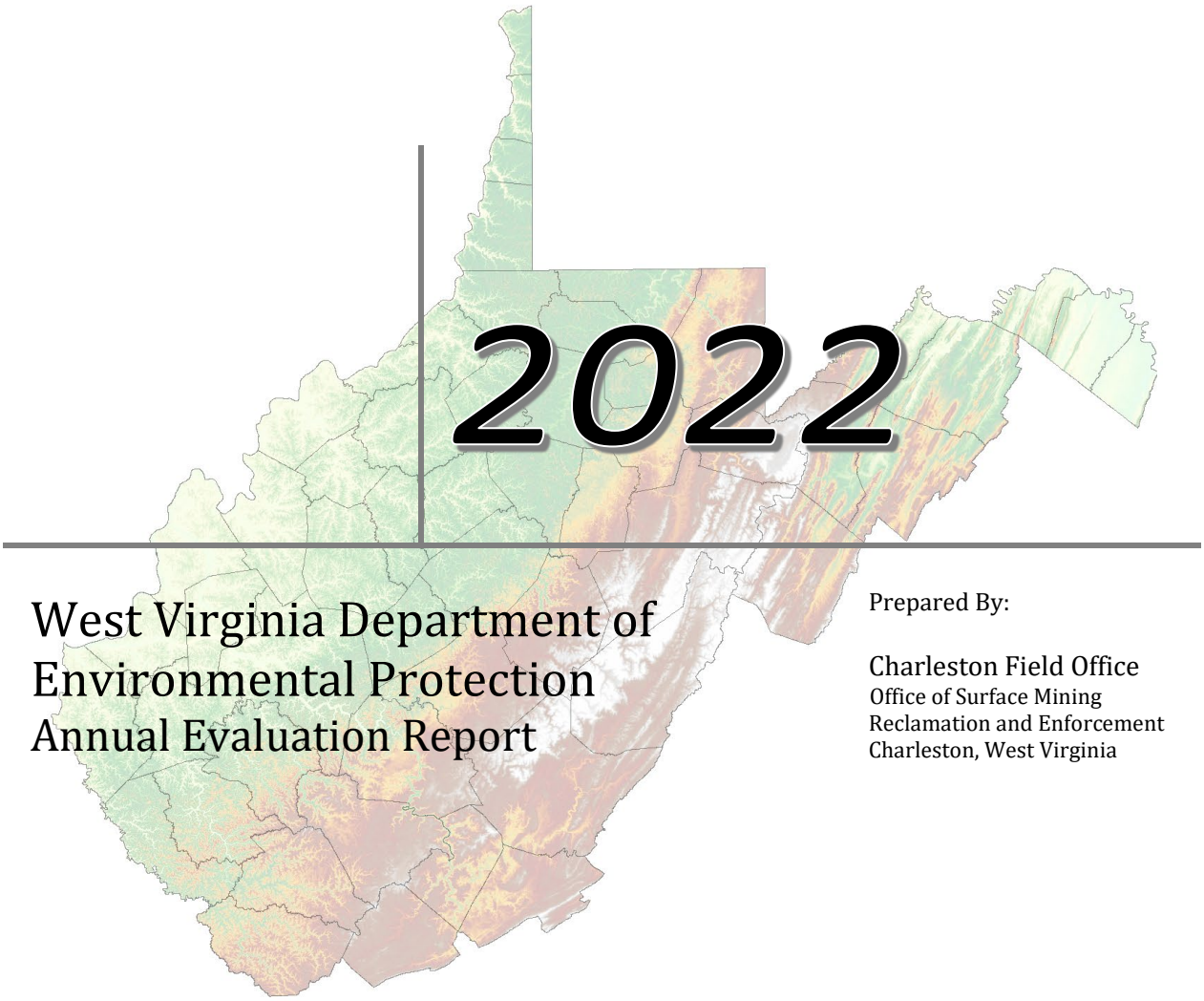

2022

West Virginia Department of Environmental Protection Annual Evaluation Report

Prepared By:

Charleston Field Office
Office of Surface Mining
Reclamation and Enforcement
Charleston, West Virginia

OFFICE OF SURFACE MINING RECLAMATION

AND ENFORCEMENT

Annual Evaluation Report

for the

Regulatory and Abandoned Mine Land Programs

Administered by the

West Virginia Department of Environmental Protection

of

WEST VIRGINIA

for

EVALUATION YEAR 2022

(July 1, 2021 to June 30, 2022)

Prepared by:

CHARLESTON FIELD OFFICE

Under Section 508 of the Rehabilitation Act, individuals with disabilities who are members of the public seeking information or services from a Federal department or agency must have access to and use of information and data that is comparable to the access to and use of the information and data by such members of the public who are not individuals with disabilities unless providing access is determined to be an undue burden. In accordance with this requirement, if you have difficulty accessing the information contained in this document, please contact the Office of Surface Mining Reclamation and Enforcement's Charleston Field Office (304-347-7158) or Regional 508 Compliance Officer (412-937-2815) for assistance.

Executive Summary

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) provides authority to the Office of Surface Mining Reclamation and Enforcement (OSMRE) to oversee the implementation of state programs that have been approved by the Secretary of the Interior as meeting the minimum standards specified by SMCRA. This report contains summary information regarding OSMRE's evaluation of the West Virginia Department of Environmental Protection's (WVDEP) Regulatory and Abandoned Mine Land (AML) Programs, and the effectiveness of those programs in meeting the goals of SMCRA. This report covers the evaluation year (EY) beginning July 1, 2021 and ending June 30, 2022.

The OSMRE and the WVDEP cooperatively develop a biannual Performance Agreement. The agreement contains the basic framework for oversight and technical assistance activities for the EY. The OSMRE solicited public input into the agreement by providing notice to interested citizens, industry, and environmental groups. The 2021/2022 Performance Agreement is available on OSMRE's on-line database, ODocs (odocs.osmre.gov).

Highlights of WVDEP's program activities and accomplishments during EY from both the Regulatory and AML Programs are outlined below.

Regulatory

During EY 2022, OSMRE awarded WVDEP $10,199,272, with a pending request for an additional $341,199.00, as matching funds to operate its Regulatory Program. Through the support of this funding, WVDEP:

- Conducted 99 percent of the inspections required by West Virginia's approved program, which included 14,243 partial and 7,041 complete inspections on 1,867 permits and 99 active coal exploration notices,
- Investigated 200 citizen complaints within two days of receipt of the complaint,
- Released bond on 4,920 acres for successful completion of reclamation,
- Measured the rate of off-site impacts, with 94% of the inspectable units (IU) found free of off-site impacts. This is above the Government Performance and Results Act (GPRA) goal of 88%,
- Issued 17 new permits and approved 176 Incidental Boundary Revisions (IBR), which removed 89 surface acres for mining, and
- Approved 177 permit renewals, 71 permit transfers, 374 general permit revisions, 99 exploration notices.

The OSMRE is required by Directive REG-8 to conduct inspections and reviews to assure West Virginia is meeting the minimum standards of SMCRA. In support of this goal, OSMRE:

- Conducted 186 oversight inspections. These inspections included complete, partial, and bond release inspections along with required document reviews,

- Performed analyses of both OSMRE oversight inspections and WVDEP inspections to demonstrate the successful implementation of its Inspection and Enforcement Program, and

- Identified 101 active permits with off-site impacts during all scheduled oversight inspections.

Abandoned Mine Lands

During EY 2022, OSMRE awarded WVDEP $18,480,441 to operate its AML Program. The WVDEP accomplished the following with this funding:

- Completed reclamation of 516 GPRA acres on 35 AML projects. Reclamation reduced potential exposure to 53,168 people as estimated by State census data.

- Investigated 390 AML-related citizen complaints within two days of receipt.

During EY 2022, WVDEP received an additional $25 million in Fiscal Year (FY) 2021 funding from OSMRE's Abandoned Mine Land Economic Revitalization (AMLER) program bringing the total available, including FY 2016, 2017, 2018, 2019 and 2020, to $155 million. Project applications for AMLER funding are in various stages of submittal, review, and approval.
Each EY, WVDEP continues the following activities and initiatives:

- Participates in the Acid Mine Drainage (AMD) Set-aside Program by drawing down AML grant funds awarded and by depositing those funds in a State account solely dedicated to treatment/remediation of AMD from pre-SMCRA coal mining operations,

- Utilizes the AML Enhancement Rule to reclaim AML sites at minimal cost to the AML Fund,

- During EY 2022, the OAMLR continued monthly project meetings via Teams conferencing with CHFO to discuss the progress, and any issues, related to any of the activities within the AML program. These meetings were originally proposed to discuss AMLER projects; however, they have expanded to discussion of any aspect relating to the program. These meetings have been extremely beneficial to CHFO and OAMLR and will continue, and

- Improvements to its National Environmental Policy Act (NEPA) document submittal through training and draft review of project documents.

Information is collected annually by OSMRE on the following areas: Acid Mine Drainage (AMD) Set-Aside funds, Water Supply Restoration, AML Enhancement, and e-AMLIS (enhanced electronic-Abandoned Mine Land Inventory System).

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I. Introduction

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created the Office of Surface Mining Reclamation and Enforcement (OSMRE) within the Department of the Interior. The SMCRA provides the authority to OSMRE to evaluate the implementation of, and provide Federal funding for, the State and Tribal Regulatory and Abandoned Mine Land (AML) Programs approved by the Secretary of the Interior. Among its responsibilities, OSMRE is charged with reviewing and approving State and Tribal Programs for regulating surface coal mining and reclamation operations, ensuring compliance with SMCRA, promoting the achievement of state program goals and objectives, ensuring adherence to Federal and state statutory and regulatory requirements, and maintaining minimum nationwide mining and reclamation standards.

The SMCRA encourages States and Tribes to assume the primary responsibility for regulating coal mining and reclamation activities (primacy). Once States and Tribes are granted primacy, the role of achieving many of the purposes of SMCRA lies primarily with them to protect society and the environment from the adverse effects of coal mining, assuring mining is not conducted where reclamation is not feasible, and assuring lands are reclaimed in a contemporaneous manner. The West Virginia Program was granted primacy on January 21, 1981 and is administered by the West Virginia Department of Environmental Protection (WVDEP) Division of Mining and Reclamation (DMR) and the Office of Abandoned Mine Lands and Reclamation (OAMLR).

Since West Virginia has primacy, OSMRE's primary role is to:

- Monitor and conduct inspections of surface coal mining and reclamation operations to ensure WVDEP is fulfilling its SMCRA responsibilities by effectively implementing, administering, maintaining, and enforcing its State program,
- Provide assistance to WVDEP in implementing its SMCRA responsibilities,
- Evaluate WVDEP's Regulatory and AML Programs,
- Work with WVDEP to resolve, in a reasonable and timely manner, program and implementation issues identified through oversight, and
- Pursue corrective actions provided by SMCRA, Title 30 Code of Federal Regulations (CFR), and OSMRE policy if WVDEP is not meeting program requirements.

The OSMRE Directive REG-8 was created to outline procedures and general criteria for evaluating State and Tribal Regulatory Programs. An EY begins on the first day of July every year and ends the last day of June in the following year.

This report contains summary information regarding the West Virginia Program and its effectiveness in meeting the goals of SMCRA as specified in Section 102, covering the evaluation period between July 1, 2021 and June 30, 2022. Individual reports for program elements evaluated

during the period are available in OSMRE's on-line database, ODocs. Reports are also available for review and duplication at the OSMRE office located at 1027 Virginia St. E, Charleston, West Virginia or by calling (304) 347-7162.

The following acronyms are used in this report:

ABS	Alternate Bonding System
AER	Annual Evaluation Report
AMD	Acid Mine Drainage
AML	Abandoned Mine Land
AMLIS	Abandoned Mine Land Inventory System
ARRI	Appalachian Regional Reforestation Initiative
CHFO	Charleston Field Office
CHIA	Cumulative Hydrologic Impact Assessment
CSR	Code of State Regulations
DMR	Division of Mining and Reclamation (WVDEP)
EPA	Environmental Protection Agency
EY	Evaluation Year
FRA	Forest Reclamation Approach
FTE	Full Time Equivalent
FWS	United States Fish & Wildlife Service
FY	Fiscal Year
IBR	Incidental Boundary Revision
IMB	Investment Management Board
IU	Inspectable Unit
NOI	Notice of Intent to Sue
NPDES	National Pollutant Discharge Elimination System
NTTP	National Technical Training Program
OAMLR	Office of Abandoned Mine Lands and Reclamation (WVDEP)
OSMRE	Office of Surface Mining Reclamation & Enforcement
OSR	Office of Special Reclamation (WVDEP)
PAD	Problem Area Description
QA/QC	Quality Assessment/Quality Control
REE	Rare Earth Elements
SMCRA	Surface Mining Control and Reclamation Act of 1977
SRF	Special Reclamation Fund
SRWTF	Special Reclamation Water Trust Fund
TDN	Ten Day Notice
TIPS	Technical Innovation and Professional Services
USACE	United States Army Corps of Engineers
WVDEP	West Virginia Department of Environmental Protection
WVHC	West Virginia Highlands Conservancy
WVSMCRA	West Virginia Surface Coal Mining and Reclamation Act

II. Overview of the West Virginia Coal Mining Industry

Underground mining was the predominate method of mining coal in West Virginia from the early 1700s through the 1950s. Surface mining began around 1916; however, significant production did not occur until World War II.

Mining activities occurring before passage of SMCRA in 1977 resulted in many under-reclaimed areas within the State, given some reclamation standards were less stringent than SMCRA. Currently, there are 4,979 problem sites listed in the Abandoned Mine Land Inventory System (EAMLIS) for West Virginia.

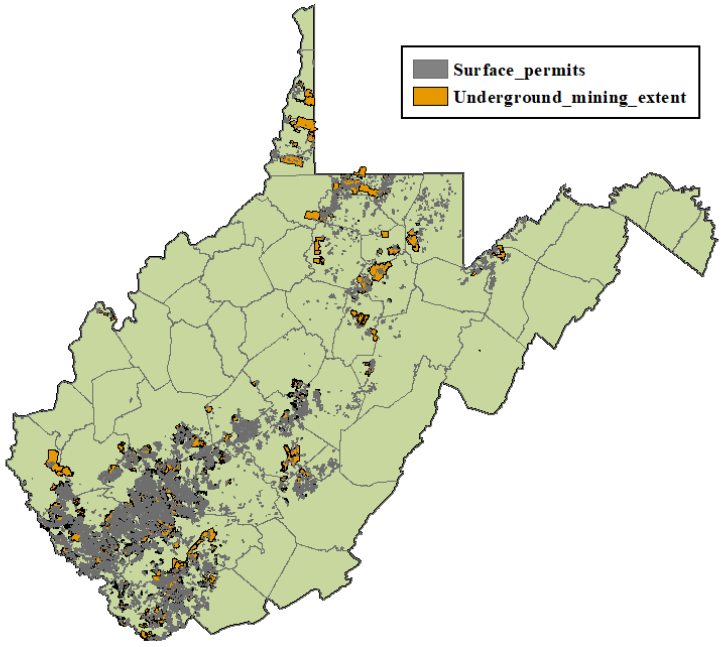


Figure 1 - Map of West Virginia Coal Mining Activity

West Virginia's demonstrated coal reserve base totals 30 billion tons, and the estimated recoverable reserves total 16.3 billion tons. Operational mines attributed 1.5 billion tons to the State's estimated recoverable coal reserves in 2022. West Virginia currently ranks fourth in the country for proven coal reserves and recoverable coal reserves. Mineable seams have been identified in 43 counties, totaling 117 seams state-wide; 65 seams contain recoverable coal if mined using current technology.

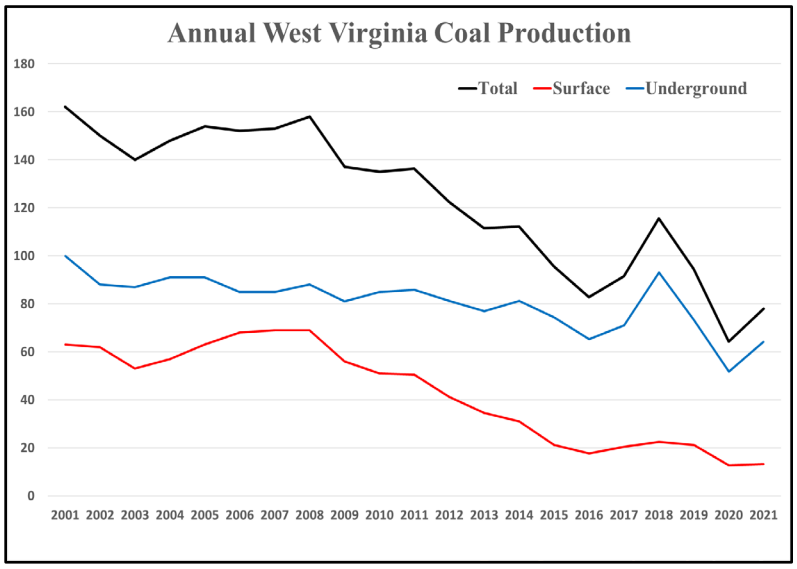


Figure 2 - Annual West Virginia Coal Production 2001 – 2021 (Million Tons)

West Virginia's coal production accounts for about 12.6 percent of the nation's total coal production. In 2021, West Virginia produced 77.9 million tons of coal (Figure 2), making it the second-largest coal producing State in the nation (see Appendix 1, Table 1 for coal production based on sales).

Coal was produced in 22 counties and 38 different seams in 2021. The State historically has a recovery rate of 66% at producing mines, leaving 34% in

place. The average market price for West Virginia coal increased by about 121% in October 2021, for a total of $205 per ton.

Methods of surface mining used in WV includes contour, area, auger, mountaintop, and highwall operations. These surface methods account for 17% of coal mined in the State, which contributes 4% of the Nation's surface mined coal. West Virginia surface coal production increased in 2021 by about 5.5 percent, compared to 2020. Generally, surface coal production has continued to decrease in tonnage and percentage of total production since 2008 (See Figure 2).

Excluding coal exploration operations, West Virginia has 1,880 inspectable units including 1,135 active mines, 490 inactive mines, 242 bond forfeiture sites, and an additional 13 inspectable units (all forfeited) on Federal lands. Inspectable units average 189.95 acres, while surface mines average 349.59 acres and underground mines average 51.19 acres. The surface area above underground works are not bonded, except for support facilities. Approximately 61% of the State's permits are active and require monthly inspections by the WVDEP. Of those active permits, underground mines account for 30% and surface mines 36%. Thirty-four percent consists of preparation plants, coal refuse piles, loading facilities, haul roads, and other facilities.

III. Overview of Public Participation and Outreach Efforts

The OSMRE Directive REG-8, Oversight of State and Tribal Regulatory Programs, establishes policies, procedures, and responsibilities to ensure that States and Tribes are effectively administering, maintaining, and enforcing their approved regulatory programs. Outreach and public participation are essential elements to effective oversight, and OSMRE continues to maximize opportunities for public participation and make oversight-related information more available to the public.

The OSMRE website, located at http://www.osmre.gov, contains information for public use concerning SMCRA and OSMRE's mission. More specifically, the website contains information regarding OSMRE resources and initiatives concerning mining and reclamation and contains contact and general information about OSMRE's evaluation of state mining and reclamation programs.

To increase the level of transparency specific to oversight activities and the public, OSMRE posts documents for each state program on its REG-8 Oversight Database (ODocs). The ODocs is located on the OSMRE's website and contains documents as required by the OSMRE Directive REG-8. The public can utilize the ODocs built-in search to view documents covering the various aspects of OSMRE's evaluation of the West Virginia Program such as Topical Studies, Evaluation Plans, Work Plans, Oversight Reports and Annual Reports.

The EY 2022 was covered under a two-year 2022/2023 Performance Agreement, which outlines oversight activities between OSMRE and WVDEP. During the development of this agreement, OSMRE conducted outreach to solicit comments from the public and interested parties regarding the evaluation process and their views on potential topics for inclusion into the performance

agreement. The OSMRE posted an announcement on its website, as well as a publication in local newspapers, soliciting public input. CHFO can be contacted using the information below.

OSMRE-CHFO
1027 Virginia St E, Charleston, WV 25301
OSM-CHFO@osmre.gov
1(304) 347-7158

Outreach efforts included the following elements:

- Announcement of the opportunity to provide comments, views or suggestions, prior to the development of the Performance Agreement,
- Announcement of the opportunity to provide comments on the proposed draft Performance Agreement,
- The OSMRE acknowledgment of receipt and appreciation for the public input received, and
- Posting of the proposed and final Performance Agreement on OSMRE's website.

Public input is considered in determining where OSMRE will focus its resources and what aspects of the State Regulatory Program will be reviewed. Notices were also mailed and e-mailed to interested citizens, industry, and environmental groups.

In addition to OSMRE's public participation opportunities, WVDEP's Regulatory Program provides many opportunities for public participation. The public can access WVDEP's Program information via its website (www.dep.wv.gov).

Within the permitting process, the State requires the coal mining applicants to advertise in a local newspaper of general circulation in the locality of the proposed operation of each permit application, significant revision, or permit renewal and must provide interested citizens the opportunity to comment. Interested parties may review applications online and the link to access applications is provided in the public notice. Citizens may request WVDEP conduct an informal conference to discuss an application before making a decision to issue or deny a permit, significant revision, or renewal.

A similar process for public advertisement applies to completed surface mining and reclamation operations at the time of bond release. Bond release occurs when all applicable reclamation activities have been accomplished in accordance with the requirements of SMCRA. The permittee must publish each bond release application in a local newspaper once a week for four consecutive weeks. The bond release advertisement must include permittee name, permit number, precise location, number of acres, total amount of bond, amount of bond requested to be released, a summary of the reclamation, and an address where written comments should be filed. The permittee must also provide proof of notification to surface owners, adjacent property owners, local government bodies, planning agencies, and sewage and water treatment facilities. The OSMRE's annual bond release inspections found WVDEP was timely in notifying citizens and resolving all bond release issues prior to making a bond release decision.

At any time, a citizen may file a complaint with WVDEP concerning mining activities or adequacy of reclamation. WVDEP responds to all oral and written citizen complaints. In EY 2022, WVDEP received 213 complaints that were regulatory in nature. The WVDEP responded to 200 complaints within two working days. If a citizen does not agree with WVDEP's action regarding a citizen's complaint, the citizen may request an informal review with WVDEP of the decision within 30 days. The WVDEP resolved 185 complaints during this EY, with 28 under review pending additional information.

Section 520 of SMCRA allows citizens to file civil actions against the United States, a governmental instrumentality, an agency, or any other person who is in violation of any rule, regulation, order, or permit issued pursuant to the Act. A Notice of Intent to Sue (NOI) is sent to notify the coal industry, and/or, state or Federal regulatory authority that a citizen intends to file a civil action.

IV. Major Accomplishments and Innovations in the West Virginia Program

WVDEP accomplished the following in EY 2022:

- Conducted industry training sessions with the topics of USACE 401/404 Permitting, Reasonable Potential for Biological Assessment Stations and Whole Effluent Toxicity, Impoundment Abandonment Procedures, and general permitting updates,
- Developed electronic application for 19N – Cease Operator Assignments,
- Participated in and supported the QA/QC panel. WVDEP has implemented its recommendations, such as eMap standards; conducting industry training sessions; continuing to encourage industry to submit timely bond release applications when a permit meets reclamation requirements; and encouraging industry, at the appropriate time in the reclamation process, to pursue post-mining effluent limits, removal of water retention structures, and deletion of NPDES outfalls,
- Issued Compliance Bulletins for eMap Data Requirements for eMap submittals in the Electronic Submittal System (ESS),
- Participated in collegiate job fairs to attract applicants for vacant positions,
- Conducted hybrid in-person informal conferences and assessment hearings,
- Transitioned to Google Drive for cloud-based storage and applications,
- Worked with OSM to develop a new special session for an underground and subsidence course that will take place in Morgantown on January 11-12, 2023,
- Performed random compaction testing at a permitted facility, and
- Updated the SWROA Modeling, Runoff Monitoring, and Data Recording Policy.

Reforestation and Reclamation

During EY 2022, per Appendix 1 Table 4, the WVDEP received 11 applications for surface mine permits and issued 12 permits, covering 4,494 acres. Additionally, WVDEP received 13 applications for surface mine permit amendments that would add acreage to the permit; WVDEP approved 10 of these amendments, covering 833 acres. WVDEP also approved 3 new permits for underground mines and 2 new permits for other facilities. Taking into consideration incidental boundary revisions, WVDEP approved a cumulative total of 5,361 newly bonded acres. Conversely, WVDEP released 4,920 acres through Phase III bond releases.

The WVDEP has promoted the Forestry Reclamation Approach (FRA) by encouraging the implementation of FRA techniques in forestry-related post-mining land uses (PMLU). The FRA is a science-based technique for reclaiming coal-mined land to forest while complying with existing state and Federal mining laws. The five major elements of FRA are: creating a suitable rooting medium, loosely grading topsoil, using compatible ground cover, planting multiple types of trees, and using proper planting techniques.

West Virginia continues to be a leader in reforestation in the Appalachian coalfields by actively promoting the utilization of FRA on both active and abandoned mine land sites. The Appalachian Regional Reforestation Initiative (ARRI) is a coalition of groups, including citizens, the coal industry, and government entities, dedicated to restoring forests on coal mined lands in the eastern United States. Mining operations in West Virginia's coalfields reforested mined lands with 1,150,937 trees this evaluation year, covering approximately 1,696 acres. Most of the sites included high-value native hardwood tree species in accordance with the FRA

Rare Earth Elements (REEs)

During EY 2022, WVDEP continued to collaborate with West Virginia University (WVU) in evaluating the concentrations of REEs in AMD sludge that is present on several bond forfeiture sites throughout the State. According to WVU, test results show that the concentrations of REEs in AMD sludge were of commercial grade, and no uranium or thorium was present in the samples evaluated. In addition, about 77% of the REEs present contain heavy versus light metals. Typically, AMD sludge with a low pH contains better quality REEs.

Recent research conducted by WVU has shown that AMD is enriched in REE and the critical mineral cobalt. It has been found that AMD has an average total REE concentration of about 287 µg/L (0.287 ppm), ranging from negligible to 2,000 µg/L. WVU has created a concentrate of 80% REE derived from AMD treatment precipitates. The strategy of using raw AMD as the feedstock to their acid leaching/solvent extraction refining process was demonstrated on a bench scale level and also in the field where a mobile field unit was deployed at a conventional AMD treatment plant operated by WVDEP.

WVDEP engineers designed an AMD treatment facility at a Buffalo Coal bond forfeiture site located on the Grant and Tucker County line near Mount Storm, WV. The engineers then worked closely with WVU to incorporate a full-scale pilot REE extraction component to the treatment plant. Rockwell Automation Corporation is providing the sensors and control technologies for the pilot plant to process the sludge predicted to hold REEs in commercial quantities for future

development. Construction of the project began November 12, 2020 and is expected to be complete in late 2022.

Studies show that the Appalachian basin could produce 800 tons of REEs per year the annual needs of the defense industry.

V. Success in Achieving the Purpose of SMCRA

To further the goal of reporting end results and reclamation success, OSMRE field offices utilize WVDEP inspections, OSMRE inspections, and program element evaluations to prepare findings on the National Measurement Elements of off-site impacts and reclamation success, as outlined in OSMRE's Directive REG-8. Comprehensive reports for the program elements evaluated during the period are available in OSMRE's ODocs database. Reports are also available for review and duplication at OSMRE's office located in Charleston, West Virginia or by calling (304) 347-7158.

A. West Virginia WVDEP Inspections

West Virginia's approved program requires an average of one complete and two partial inspections be conducted each calendar quarter for all mine sites, except those sites that have an approved reduced inspection frequency due to abandonment, temporary cessation of operations, or a Phase II bond release. Sites in the bond release process and in temporary cessation require an average of one complete inspection per quarter.

A complete inspection requires a review of all applicable performance standards associated with the mining operation, while a partial inspection only requires a review of some of the applicable performance standards. Requirements are detailed below.

- Active sites require one complete inspection and two partial inspections quarterly.
- Inactive sites require one complete inspection every quarter.
- Forfeited abandoned sites require one complete inspection per year.
- Not Started sites require one complete inspection per quarter per the State's policy.

The WVDEP inspectors conducted 21,284 inspections on 1,867 mine permits and 117 inspections on 99 active coal exploration notices during this EY, per Appendix 1 Table 10.

Considering only permits classified as active and inactive, WVDEP conducted 6,682 complete inspections and 11,110 partial inspections. When considering all inspections conducted on active and inactive permits during the EY, irrespective of the monthly requirement, data shows WVDEP conducted 3 percent (182) more complete inspections than required, along with 18 percent (2,030) more partial inspections than required by the program. WVDEP met inspection frequency on 99% of permits for both partial and complete inspection requirements. For more information on inspection numbers please refer to Table 10 in the Appendix 1.

WVDEP's Inspection Results

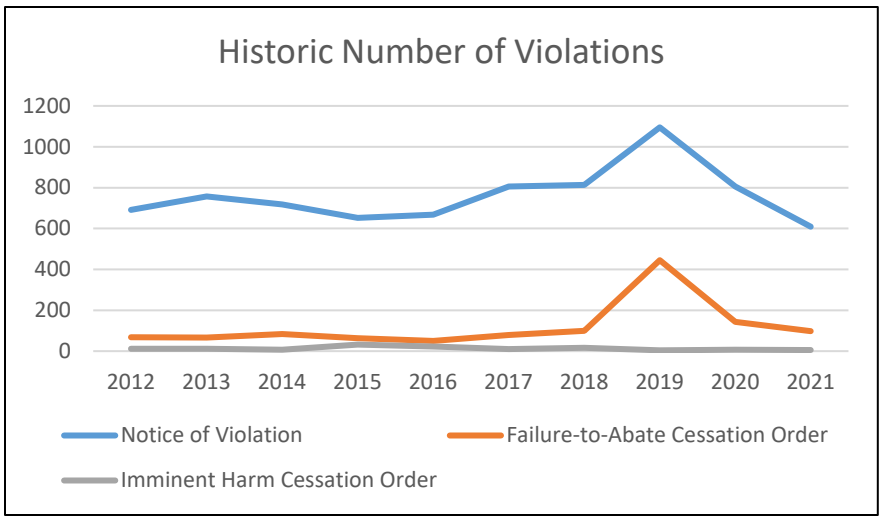


Figure 3 - WVDEP Historic Violations

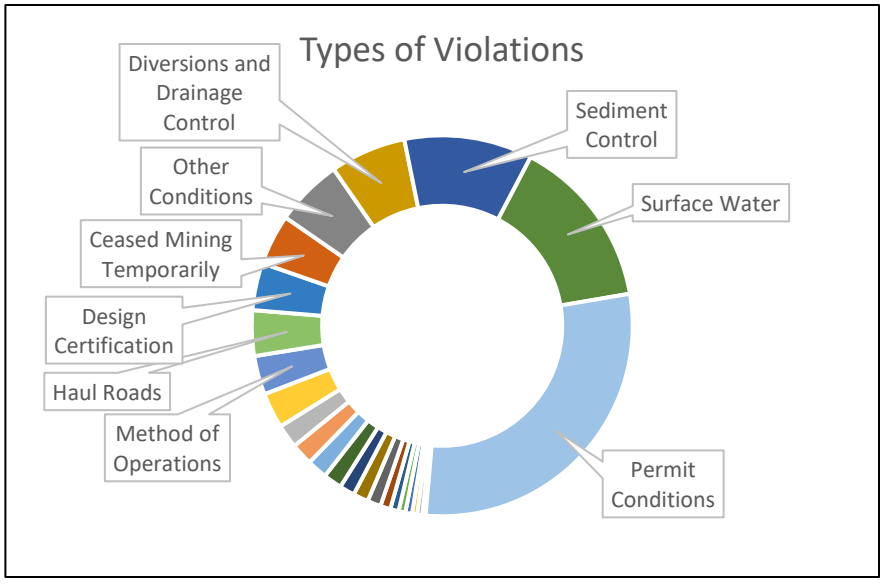


Figure 4 - West Virginia Permit Violations by Type

During EY 2022, WVDEP issued 756 violations to 319 permits. For EY 2022, Permit Conditions was the most common violation type identified by WVDEP. Permit Conditions accounted for 29% of the violations, Surface Water accounted for 15%, and Sediment Control accounted for 11%. The remaining 45% of violations were spread among other performance standard categories. Overall number of violations has significantly decreased from the prior EY, this is likely due to the overall decline of active, producing mines and the increase in released acreage.

B. OSMRE Inspections

For States and Tribes with more than 1,000 IUs, OSMRE will uses a sampling formula to determine its target number of oversight inspections.

OSMRE adopted this formula to give a high level of statistical confidence in the data with the understanding that the statistical validity of the results will vary from year to year depending on the stratification of the sites selected and types of studies conducted. The formula that OSMRE will use to determine the target number of inspectable units to be inspected in States and on Indian lands with more than 1,000 IUs is n = 384/ (1+ (383/N)), N is the total number of IUs. OSMRE utilized this calculation at the end of EY21 to populate the target number of inspections for inclusion in the 2022/2023 Performance Agreement. Regulatory Table 2 within the 2021 AER included a total inspectable unit count of 1969.

$$n = 384/(1+(383/1969))$$

$$n = 321$$

Inspections are categorized in one of the following ways: Complete, Partial, Independent, or Bond Release. Complete inspections refer to a review of all related regulations or performance standards.

Partial inspections refer to the evaluation of one or more parts of a regulation or performance standard.

The OSMRE completed 186 inspections for EY 2022, which is 42% less than the target of 321 inspections. This evaluation activity is detailed in Appendix 1, Table 13. OSMRE additionally conducts inspections and site visits for special regional studies, assistance to the State, citizen complaints, bond release follow-ups, and document reviews. During EY 2022, along with the 53 complete and 133 partial inspections, OSMRE conducted 15 document reviews. These additional types of activities are reflected in the Site Visits, "Other" column of Table 13.

The OSMRE Directive REG-8 specifies at least 33 percent of these inspections be complete inspections. It also states that bond release inspections should not represent more than 25 percent of the total number.

Inspections evaluate compliance with West Virginia's permanent regulatory program provisions, the approved permit terms and conditions, and approval of the current permit operator under the Applicant Violator System. This enforcement data also helps evaluate and identify program trends, concerns, and accomplishments.

Throughout complete and partial inspections, inspectors gather off-site impact data, compile general compliance statistics, and document other findings including program trends, concerns, and accomplishments.

If OSMRE observes violations during joint OSMRE/WVDEP inspections, OSMRE defers the enforcement action to WVDEP. If OSMRE believes WVDEP has not adequately addressed a violation, OSMRE will issue WVDEP a Ten-Day Notice (TDN), which allows the state time to take appropriate enforcement action, decide that a violation does not exist, or show good cause for not taking enforcement action. If OSMRE determines WVDEP's response to a TDN is not arbitrary, capricious, or an abuse of the state's discretion, then OSMRE takes no further action. If OSMRE judges a state TDN response as inappropriate, after allowing time for an appeal, OSMRE may take enforcement action independently if still necessary. The WVDEP generally takes appropriate action when it observes a violation.

OSMRE Inspection Results

The OSMRE identified 45 violations during inspections in EY 2022 as shown in Appendix 1, Table 13. The WVDEP took appropriate action regarding all violations. The OSMRE identified the following types of violations during EY 2022: Vegetative Cover, Terms & Conditions of Permit, Temporary Cessation, Surfacing & Maintenance, Surface Stabilization, Steep Slope (includes downslope), Stabilization (rills and gullies), Siltation Structures, Post Mining Land Use, Placement, Mining within the Valid Permit, Mining within Bonded Area, Inspections & Certifications, Effluent limits, Drainage Control, Discharge Structures, Contemporaneous Reclamation, and Other. OSMRE found, of the 186 inspections conducted, 76% percent of permits it reviewed were violation-free.

Bond Release Inspection Results

The OSMRE considers bond release acreage a method to determine whether the approved West Virginia Program is successfully achieving results. Both OSMRE and WVDEP have worked together to attain procedures that capture the bond release data necessary to measure program performance. The WVDEP records indicate 4,920 acres of land received Phase III bond release during EY 2022.

OSMRE conducted 33 oversight bond release inspections on permits where the permittee had requested bond release during the evaluation year. Field conditions were compared to the reclamation plan contained in the permit. Nineteen inspections were on Phase III releases, 3 inspections on Phase II releases, and 11 inspections on Phase I releases. OSMRE oversight inspections of bond releases resulted in 4 off-site impact violations being issued.

The 19 Phase III bond release inspections conducted by OSMRE occurred on 16 permits that submitted Phase III bond release applications during the EY. The 16 permits submitting bond release applications included 9 surface mines, 6 underground mines, and one haulroad, covering a total of 2,838.67 acres. During the EY, 17 of these oversighted bond release applications, including incremental bond releases, were approved, for a total of 2,505.68 acres released through phase III bond release.

The post mining land uses (PMLU) associated with these 17 approved bond releases and their respective acreage are as follows: Fish & Wildlife/Recreation – 1,248.22 acres, Forestland – 908.94 acres, Rangeland – 146.41 acres, Hayland/Pasture – 141.0 acres, and Industrial – 61.11 acres. It should be noted that applications which were terminated or withdrawn, had areas with MR-12 applications (which allow roads or ponds to be kept on site at the request of the landowner), or acreage that was overbonded by other permits are not counted in the PMLU acreage breakdown.

National Measurement Elements

Directive REG-8 identifies two National Measurement Elements OSMRE should review of a State or Tribal Program. These elements are off-site impacts and reclamation success. Review of these elements is supplemented by inspections, national priority topic reviews, and other topic-specific reviews, all outlined in the Performance Agreement developed by OSMRE and WVDEP.

The EY 2022 summary result of OSMRE's review of these elements is detailed below for WVDEP.

C. Off-site Impacts

The OSMRE conducts an annual review of the effectiveness of West Virginia's program in protecting the environment and public from off-site impacts resulting from surface coal mining and reclamation operations. The goal is for each IU to have minimal or no off-site impacts; the objective is that States, Tribes, and OSMRE direct efforts to continually reduce the occurrence of off-site impacts. Off-site impacts resulting from surface coal mining and reclamation operations are one of the metrics utilized by OSMRE to collect data for the Government Performance and Results Act (GPRA). The measurement is intended to identify and report for each IU the number and degree of off-site impacts, determine the causes of the impacts, and identify where improvements may be made to lessen the number and degree of impacts. If evaluation data related to off-site impacts indicates program or implementation-related problems, OSMRE and the State or Tribe will implement changes to minimize recurring impacts.

An off-site impact is defined as anything resulting from a surface coal mining and reclamation activity or operation that causes a negative effect on resources outside the permitted area (people, land, water, structures) where that impact is intended to be minimized or prevented by SMCRA or the applicable state program. Off-site impacts are classified by the type of impact, and by the degree of impact (minor, moderate or major). One off-site impact may be recorded to affect multiple resources to varying degrees, but the impact itself is counted only once. During EY 2022, off-site impacts were identified through both routine WVDEP inspections and OSMRE-scheduled oversight inspections.

NOTE: Please note Appendix 1 includes an original Table 5 and a corrected Table 5. The off-site impact numbers for bond forfeiture sites were incorrect in the original Table 5 when it was certified. This error was discovered after certification, and so both versions of the table have been included in the interest of transparency. The State's OSR has experienced major personnel changes within the past year, with losses in institutional knowledge. These changes included the personnel that gathered off-site impact data in prior years; personnel gathering the data this EY did not properly understand the database where the data is stored and misrepresented the data. The narrative below reflects the corrected Table 5.

- **Bonded Sites**

Per Appendix 1 Table 5, 1,623 of the State's non-forfeited permits were evaluated for off-site impacts by reviewing the inspection and enforcement data contained in the State's Environmental Resources Information System (ERIS). During this review period, all 756 enforcement actions and 17,792 inspections were evaluated for off-site impacts. A total of 179 off-site impacts were found on 101 permits, or 6% of the State's permitted population. Therefore, the majority (94%) of the permitted sites were free of off-site impacts. Last EY, 183 off-site impacts were identified on 87 permits, indicating a 2% decrease in off-site impacts from last year, but a 16% increase in the number of permits with off-site impacts.

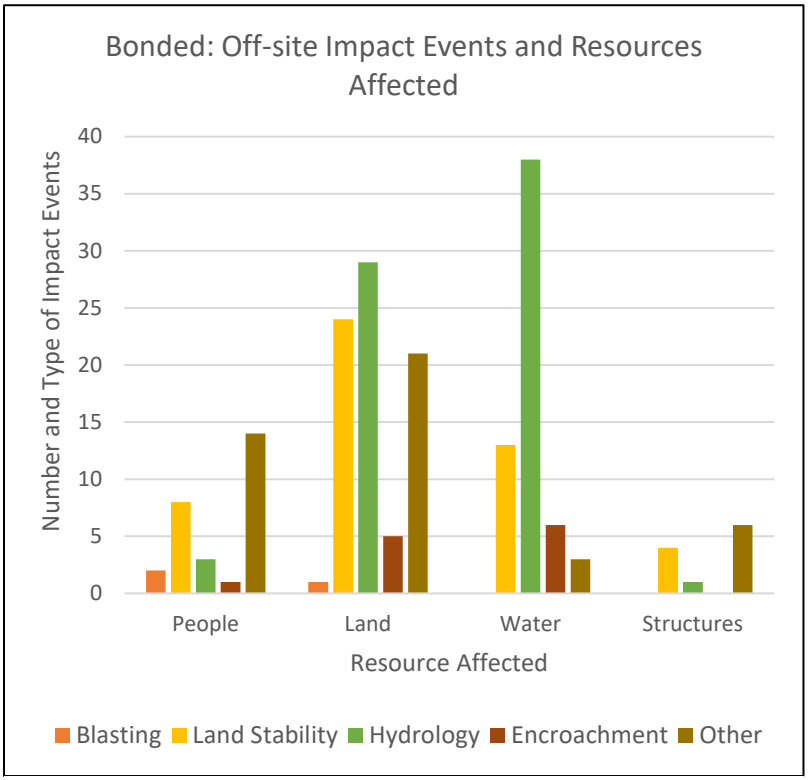


Figure 5 - Bonded: Off-site Impact Events and Resources Affected

OSMRE conducted 186 oversight inspections during EY22. During these oversight inspections, 21 off-site impacts were identified, including three minor, 14 moderate, and four major impacts.

This EY, WVDEP identified an average of one off-site impact for every 100 inspections conducted. In comparison, OSMRE identified an average of one off-

site impact for every 10 oversight inspections conducted.

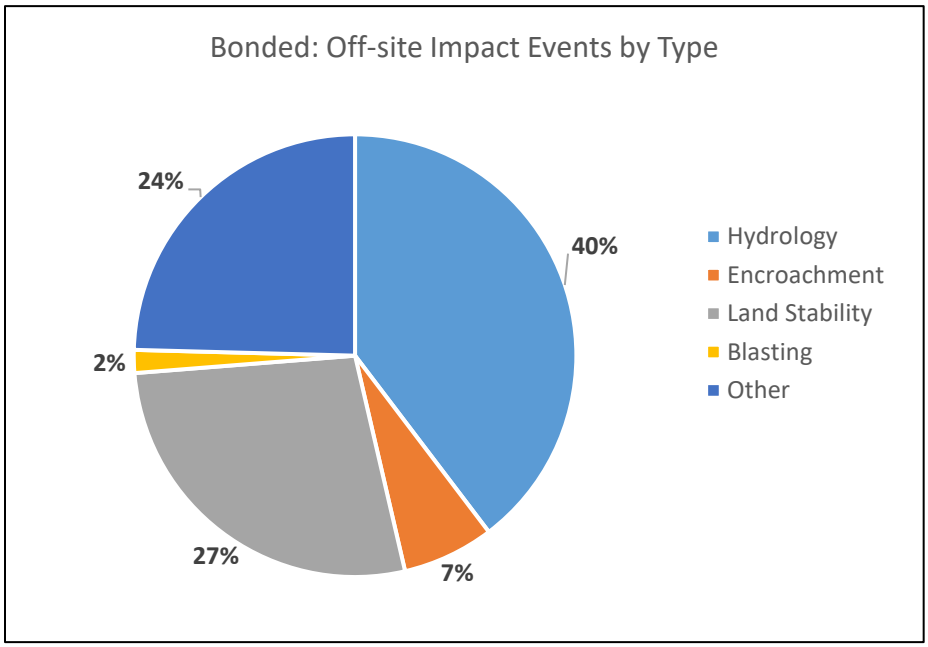


Figure 6 - Bonded: Off-site Impacts Events by Type

As part of the evaluation of off-site impacts and based on the State data, OSMRE determined that the primary cause of off-site impacts this EY is operator negligence. These impacts were categorized as to type of impact, resources affected, and degree of impact as required by Table 5 in REG-8. Figure 5 depicts the frequency with which the various impact event types affected each resource category.

Hydrology represents 40% of the type of impact event identified this year and remains the most common type of impact event resulting from mining operations. This is a decrease from last year's 56% of impacts. The hydrology category includes violations such as exceeding effluent limits, black water spills, and breached diversion ditches. Land Stability is the second most frequently cited impact event this year at 27%, which is more than last year's 16%. Other represents 24% of the type of impact event, which is the same as last year's 24%. Blasting represents 2% of the type of impact event this year, which is slightly less than last year's 4%.

Twenty-eight impacts affected People; these included 18 minor, one moderate, and nine major impacts. Most of these were related to subsidence issues and citizen complaints. Impacts affected Land 80 times, including 44 minor, 33 moderate, and three major impacts. Most of these impacts were related to mining off the permit, landslides caused by down slope spoil placement, and breached perimeter diversions causing erosion and sedimentation. Impacts affected Water 60

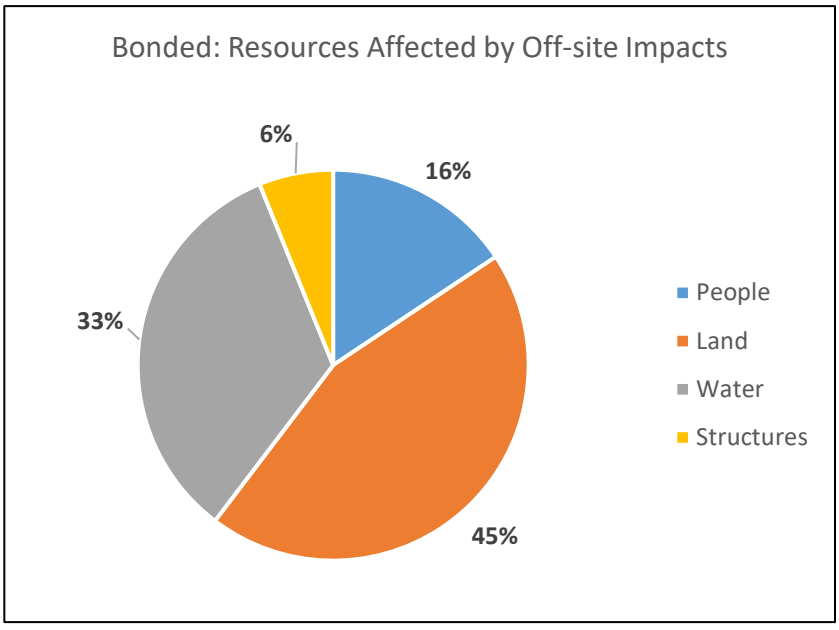


Figure 7 - Bonded: Resources Affected by Off-site Impacts

times, including 30 minor, 23 moderate, and seven major impacts. Most of these impacts were related to violations of effluent limitations or State water quality standards and other mine discharges that resulted in water quality problems. Impacts affected Structures 11 times, including eight minor, two moderate, and one major impact. Most of these impacts resulted from coal trucks tracking mud onto county highways or creating fugitive dust causing unsafe driving conditions and blasting operations.

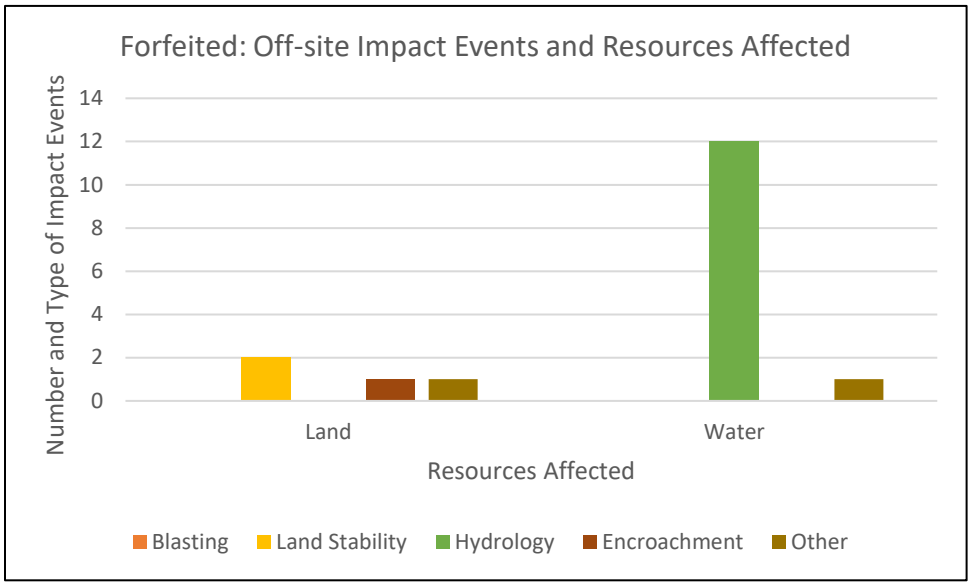
With regard to intensity of impact, Minor impacts accounted for 56% of the overall total, Moderate for 33%, and Major for 11%.

- **Forfeited Sites**

The State's OSR conducted an off-site impact evaluation of forfeited sites for this review period. During this review period, OSR added 70 new bond forfeitures to the inventory, demonstrated in Appendix 1 Table 7A. The State's bond forfeiture permits inventory now stands at 255.

Treatment is currently making improvements to the water quality at many forfeited permits but has not completely eliminated the off-site impacts due to the poor water quality, demonstrated by Figure 8 below.

The OSR maintains an inventory of the State's forfeited permits and is responsible for the reclamation of those permits. The number of off-site impacts associated with those permits totaled 17 during the review period, a decrease of 23% from last year's 22 off-site impacts at bond forfeiture sites. Of these 17 impacts, 12 were categorized as hydrology impact events, one was categorized as an encroachment impact event, two were categorized as other, and two related to land stability impact events. Ninety-four percent of the State's un-reclaimed bond forfeiture sites were free of off-site impacts during EY 2022, an increase from last year's 92%.



These impact events affected Land and Water resources. Impacts affected Land 2 minor time and 1 moderate time; Impacts affected Water 12 times, including 7 minor impacts, 2 moderate impacts, and 3 major impacts.

Figure 8 - Forfeited: Off-site Impact Events and Resources Affected

D. Reclamation Success

The OSMRE's Directive REG-8 requires an evaluation of the effectiveness of state programs in ensuring successful reclamation on lands affected by surface coal mining operations provided through the State or Tribal Program.

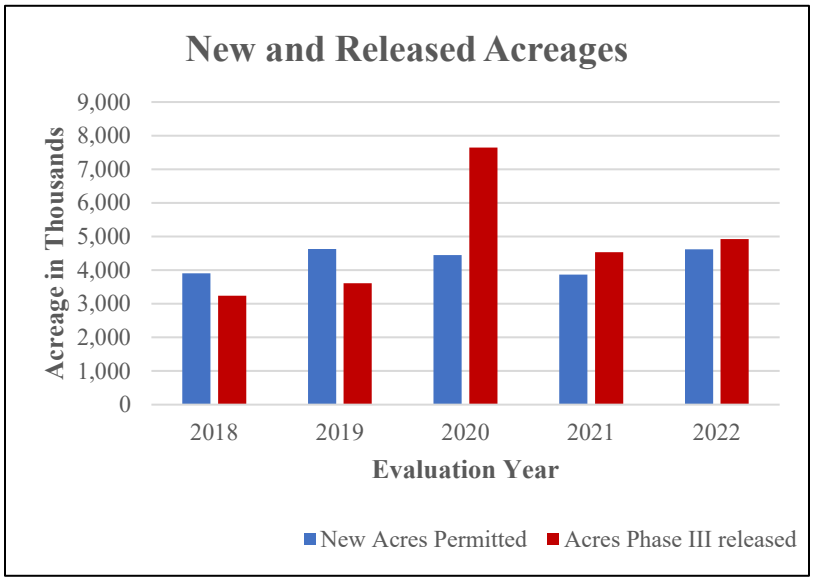


Figure 9 - New Permitted Acreage and Acres Released During Phase III Bond Release from 2018 - 2022

The OSMRE considers the bond release process one opportunity to determine whether the approved West Virginia Program is successfully achieving results. Success is determined based on the number of acres that meet the bond release standards and have been released by West Virginia.

The WVDEP takes a proactive approach with regard to bond release and during certain mining stages, WVDEP identifies and communicates to the permittee the work necessary for the achievement of bond release. Additionally, inspection and technical staff work together expeditiously during the bond release decision process.

The State releases reclamation bonds in three phases. Phase I bond release indicates backfilling is complete and the topography is returned to its approximate original contour, unless there is an approved variance. The Phase II release verifies vegetative cover or other erosion control measures adequately stabilize the surface from erosion and soil resources are adequate to support that cover. In addition, the site is not contributing suspended solids to streamflow or runoff outside the permit area. Finally, Phase III, or final bond release, confirms the mine site is fully reclaimed, meeting the required maintenance period, and the approved post mining land use has been achieved. Complete restoration of land and water resources affected by mining is shown by this release.

The WVDEP records, and Appendix 1 Table 6, indicate 4,920 acres of land received Phase III bond release during EY 2022, illustrating the program is effectively fostering reclamation success on lands impacted by surface coal mining.

The State's Office of Special Reclamation (OSR) completed land reclamation on seven bond forfeiture sites and installed active or passive water treatment systems on three sites. The OSR continues to maintain an inventory of the state's bond forfeiture sites and oversees the reclamation of these sites.

VI. National Priority and General Oversight Topic Reviews

During EY 2022, OSMRE and/or WVDEP evaluated the following Regional or General Oversight topics; no National Priority Topics were evaluated. Unless otherwise noted, the following reviews were conducted by teams representing both OSMRE and WVDEP. Individual reports are available in OSMRE's on-line database, ODocs. Reports are also available for review and duplication at the OSMRE office located in Charleston, WV or by calling (304) 347-7158.

National Priority Topics

No National Priority topics were identified for EY 2022.

Regional Oversight Topics

Cumulative Hydrologic Impact Assessment (CHIA) Program and Trend Station Data

During prior years, OSMRE's Regional Office evaluated the WVDEP CHIA process by reviewing existing policies and guidelines governing the CHIA process, interviewing permit review staff, and conducting permit CHIA reviews to document the implementation of the policies.

Following the evaluation, OSMRE documented its findings in a report titled "Documentation of West Virginia's Cumulative Hydrologic Impact Assessment Program."

As a logical progression following the CHIA review, the regional office planned to look further into various trend station data collected by the states; however, at the close of EY 2022 this study has not been initiated.

General Oversight Topics

Program Amendment Status

There are ten Program Amendments outstanding for WVDEP's regulatory program. These amendments are summarized in the following table.

Amendment	Description	Law/ Regulations Amended
WV-115 (Combined with WV-116)	• SB 600 amends §22-3-11 of the Code of West Virginia to implement actuarial recommendations relating to the continued fiscal sustainability of the Special Reclamation Fund. The legislation consolidates what has been known as the "7-and- 7.4 tax" (the 7.4 portion of which is currently subject to annual renewal) into a 14.4 cents tax per ton of clean coal mined, reviewable every two years by the Legislature. • OSMRE will publish this rule with WV-116	§22-3-11, §22-3-11(h)

Amendment	Description	Law/ Regulations Amended
WV-116	• SB 153 amends State's Surface Mining Reclamation Regulations concerning the continued oversight of "approved" persons who prepare, sign, or certify mining permit applications and related materials. • SB 153 additionally proposes to modify incidental boundary revisions (IBRs) to existing permits, clarify certain types of collateral activities, delete the bonding matrix forms, change the term "bio-oil" to biofuel, and clarify standards for hayland and pasture use (Administrative Record WV-1522). • SB 1011 amends West Virginia Code by requiring surface mine reclamation plans to comport with approved master land use plans and authorizing surface mine reclamation plans to contain alternative post-mining land uses (Administrative Record WV-1523). • SB 436 amends West Virginia Code 22-3-8 by changing references to "the commissioner of the Bureau of Employment Programs" to "executive director of Workforce West Virginia" and "the executive director of the workers' compensation commission" to "Insurance Commissioner" (Administrative Record Number WV-1521). • OSMRE will publish the final rule when review is complete.	Permit Applications, IBRs, Biofuel Bio-oil Standards, Hayland Pastureland, §22-3-8 References
WV-118	• SB121 amends minimum incremental bonding rate of $10,000 per increment. (Administrative Record WV-1561). Additionally, it clarifies the format and information necessary for a complete permit application submittal and for the renewal process to consider WVDEP's electronic filing process. It provides that an approved person must maintain the capability of submitting maps, plans and all other technical data in an electronic format prescribed by the Secretary. In addition, it provides that pre-subsidence surveys will be confidential and only used for evaluating damage relating to subsidence and clarifying that bonding for a permit in inactive status shall remain in effect for the life of the operation. It also provides the Secretary shall issue e-mail notice of a Show-cause Order to members of the public who have subscribed to the Secretary's e-mail notification service and otherwise provide notice to any person whose citizen complaint has resulted in the issuance of any enforcement action that led to the issuance of a Show-cause Order. • OSMRE will publish the final rule when review is complete.	Incremental Bonding Rate, Permit Application Renewal, Map Submission, Pre-subsidence Surveys, Show-Cause Order notification
WV-120	• In 2009, WVDEP expressed an interest in revising its State-Federal Cooperative Agreement. West Virginia entered a cooperative agreement with OSMRE in 1983 to regulate coal mining on Federal lands within the State. • OSMRE will publish the final rule when review is complete.	Federal -Lands Permitting
WV-123	• HB 4726 terminated the Office of Explosives and Blasting (OEB) with the passage of Section 22-3-34 of the West Virginia Code and transferred the duties and responsibilities relating to blasting to the Division of Mining and Reclamation (DMR).	OEB termination, §22-3-34, (CSR) 199-1, Hydrologic Impact Assessment

Amendment	Description	Law/ Regulations Amended
	• HB 4726, at Section 22-3-13(g) of the West Virginia Code, authorizes WVDEP to revise its rules regarding hydrologic protection and storm water runoff analyses for mining operations and to promulgate rules that conform with Federal requirements to minimize disturbances to the prevailing hydrologic balance at a mine site and in associated off-site areas. • WVDEP may conduct a cumulative hydrologic impact assessment and requires a statement of probable hydrologic consequences and to prevent flooding. • OSMRE will publish the final rule when review is complete.	
WV-124	• The SB 357 amended West Virginia Code Sections 22-3-13 and 19, and authorized WVDEP to promulgate revisions to its contemporaneous reclamation and inactive status regulations. • HB 117 provides that the legislative rule filed by WVDEP in the State Register on July 27, 2015, that includes revisions regarding contemporaneous reclamation, inactive status, and topsoil, received authorization by the West Virginia Legislature. In addition, amendments regarding bonding requirements for permit renewals and incremental bonding for permit renewals also received authorization by the Legislature. (Administrative Record WV-1606) • OSMRE will publish the final rule when review is complete.	§22-3-13, §22-3-19, Inactive Status, Topsoil, Contemporaneous Reclamation
WV-125	• SB 687 amends West Virginia Code §§22-3-11(g) (1) and (2), 22-3-13a (a) and (b), 22-3-13a (f) and (h), and 22-3-23 (c) and (i) providing that money be paid from the Special Reclamation Water Trust Fund to assure a reliable source of capital and operating expenses for the treatment of discharges from bond forfeited sites; modifying notification requirements for pre-blast surveys for surface mining operations and certain other blasting activities; and removing minimum bond requirements related to certain reclamation work. • OSMRE will publish the final rule when review is complete.	SRWTF, SRF, Pre-Blast Surveys, Bond Requirements
WV-126	• WV-126, on May 2, 2018, WVDEP submitted Senate Bill 163 (SB 163) to OSMRE. The SB 163 authorized WVDEP to consolidate all its blasting regulations under its Surface Mining Reclamation Regulations. SB 163 modified section 6 relating to blasting in general and created new sections 25 through 27 relating to certification of blasters, blasting damage claim and arbitration for blasting damage claims and explosive material fee, respectively. • SB 626 includes proposed statutory revisions that amend §§22-3-9 and 22-3-20 of the West Virginia Code. The SB 626 includes new public notice requirements regarding permit applications. The revisions at §22-3-9 provide an applicant's advertisement for public notice be published on a form and in a manner prescribed by the Secretary of WVDEP, which may be electronic. Additional revisions to §22-3-20	Blaster Certification, Damage Claim and Arbitration, Explosive Material Fee, Public Notice Requirements

Amendment	Description	Law/ Regulations Amended
	provide similar public notice requirements for the informal conference. (Administrative Record Number WV-1613A-B). • OSMRE will publish the final rule when review is complete.	
WV-127	• HB 4217 amends language relating to owner compensation of material damages from subsidence to an owner's structures or facilities. • OSMRE will publish the final rule when review is complete.	Subsidence Compensation, Sureties Approval
WV-128	• HB4758 amends §22-3-11(i)(2) of Code of West Virginia to develop and maintain a database to track reclamation liabilities in WVDEP program. • OSMRE will publish the proposed rule for public comment when review is complete.	Special Reclamation Fund, Water Trust Fund

Figure 10 - West Virginia Program Amendment Status

For more information on specific amendments contact: osm-chfo@osmre.gov or 1-304-347-7158. Upon final approval of each amendment, OSMRE will publish the final rule to Federalregister.gov. Amendments can be located by utilizing the search bar on this page and entering the amendment number, including the letters and dash mark, ie. WV-128.

30 CFR Part 733 Allegation Validation

Original Petition and Findings

While OSMRE concluded in 2017 that the issues identified under the 30 CFR Part 733 petition, filed June 24, 2013, did not justify withdrawing approval of West Virginia's approved regulatory program, OSMRE did agree to oversee and provide technical assistance to WVDEP in developing and implementing improvement plans in five program areas. WVDEP previously implemented improvement plans in four of the five program areas, as outlined in prior AERs. WVDEP's progress implementing its remaining Part 733 topic are set forth below.

Follow-Up State Improvement Commitments

In response to OSMRE's Part 733 CHIA evaluation, the WVDEP proposed changes to its CHIA process. The WVDEP proposed eight program objectives to improve its CHIA permitting process, five of which were previously completed and discussed in prior AERs. The remaining three objectives are discussed and concluded below:

- Perform quality control assessments on completed CHIAs. This task was implemented by the State. In EY 2022 OSMRE analyzed the State's findings between 2015 and 2021 regarding the consistency of staff CHIA narratives. OSMRE has determined that the State has progressively improved its underground bond release process with the continued

guidance, training, and monitoring of the underground bond release process. OSMRE will discontinue reporting on this program objective.

- WVDEP's staff performed assessments to ensure overburden testing for selenium in an applicant's permit is occurring, and special handling plans are adequate to isolate the problematic overburden strata occurring in certain permits. DMR has completed this item. WVDEP provided training to its staff on evaluating the adequacy of special handling plans. OSMRE deems this item complete and will discontinue reporting on this program objective.
- Update the State's selenium policy once new fish tissue-based selenium limits upon finalization and implementation by WVDEP. WVDEP provided training to its personnel on implementation of the fish tissue-based selenium limits. OSMRE deems this item complete and will discontinue reporting on this program objective.

Underground Mine Hydrology Field Review

The OSMRE is continuing to work with WVDEP to evaluate underground bond releases to ensure that post closure hydrology will not create a long-term pollution source and that outcrop barriers are sufficient to prevent blowouts.

OSMRE is conducting an oversight study to evaluate WVDEP's consideration of potential hydrologic impacts associated with underground mines at the time of bond release. The oversight study will document whether underground mine permits held adequate information on elevation and water quality of the mine pool or mine pool discharges and will assess whether this information was carefully considered during the bond release assessment. The study is evaluating the hydrologic consequences section of the approved permits to determine whether the initial predictions for the final mine pool elevation were accurate.

OSMRE completed a draft of the report in March 2022. OSMRE will solicit State comments on the draft report in EY 2023. Upon completion of the final report, the report will be available at https://www.odocs.osmre.gov/. Additionally, results of the study will be reported in the EY 2023 AER.

Timeliness of Bond Forfeiture Reclamation

OSM conducted a study to evaluate the timeliness of bond forfeiture reclamation by OSR. The 38 CSR 2-12.4.c provides that after the notice of forfeiture has been served, the Secretary shall in a timely manner, but not later than 180 days after such notice, initiate reclamation operations to reclaim the site in accordance with the approved reclamation plan or modification thereof, including action to remediate any acid mine drainage from the site. This report is in progress and will be summarized in the AER when finalized.

The West Virginia Legislature adopted Enrolled SB 163 on February 16, 2018, and the Governor approved it on February 27, 2018. As a result of this action, WVDEP proposes to remove subsection 12.4.c from its regulations. This amendment is pending OSM approval.

VII. Regulatory Program Problems and Issues

During EY 2022 WVDEP experienced various Regulatory Program problems or issues which were either resolved or are ongoing. Such issues are discussed in the following sections.

30 CFR Part 732 Notifications

Under 30 C.F.R. Section 732.17(c) OSMRE is requiring WVDEP to submit an amendment to their mining program that will ensure tracking of existing reclamation liabilities (including water treatment) at mining operations.

On December 30, 2020, the State notified OSMRE of the possible occurrence of a significant event that could affect the implementation, administration, or enforcement of the West Virginia approved State financial assurance programs. On January 29, 2021, OSMRE acknowledged the complexity of these circumstances and the potential impacts on the West Virginia approved State program, particularly to the solvency of WVDEP's financial assurance program that ensures funds are available to carry out reclamation responsibilities if a permittee is no longer able to do so.

On May 17, 2021, the Ohio Valley Environmental Coalition, West Virginia Highlands Conservancy, and The Sierra Club filed a complaint in the USDC Southern District, Huntington, WV alleging that OSMRE has failed to make the required determination of whether an amendment to West Virginia's SMCRA Program is necessary within the 30-day period following receipt of notice from the West Virginia Department of Environmental Protection ("WVDEP").

On August 23, 2021, OSMRE determined that West Virginia was required to submit a program amendment that will ensure tracking of existing reclamation liabilities (including water treatment) at mining operations (WV-1659). Pursuant to the Federal regulations, 30 C.F.R. § 732.17(f)(1), within 60 days of notification, West Virginia must submit to OSMRE "either a proposed written amendment or a description of an amendment to be proposed that meets the requirements of the Act and this chapter, and a timetable for enactment which is consistent with established administrative or legislative procedures in the State." The WVDEP provided OSMRE an interim response on October 18, 2021, with explanations of their proposed actions including draft language for a program amendment.

OSMRE's 2002 approval of WVDEP's alternative bonding system relied on the justification that WVDEP's methods for collecting and maintaining this information would improve providing the Council, auditors, and ultimately the West Virginia Legislature, with accurate and up-to-date information regarding the extent of reclamation obligations that could fall to the State.

On March 29, 2022, WVDEP submitted a program amendment (WV-128, HB4758) to amend Section 22-3-11(i)(2) of the Code of West Virginia to develop and maintain a database to track reclamation liabilities of WVDEP's Special Reclamation Program. OSMRE is currently writing the proposed federal register notice and will have a public comment period when it is posted to Federalregister.gov (WV-128). For more information refer to 'WV-128' under Program Amendments on page 27.

West Virginia Bonding Program Evaluation

As a result of the events which led to the 30 CFR Part 732 Notification outlined in the above section, OSMRE is conducting an oversight study to evaluate all aspects of the bonding program. The study is being conducted using a two-phase approach.

Phase one entails an evaluation of the program from the individual permit level. This phase is evaluating a sample of ten forfeited permits. Forfeited permits were chosen because actual bond amounts available at forfeiture, contributions to the Bond Pool prior to forfeiture, and reclamation and water treatment liabilities estimated at forfeiture, are final values. Separate samples are being used to evaluate the program with respect to land reclamation and water treatment, though some permits are in both groups, having both types of liabilities. The phase one report is under review. Phase two of this evaluation is contingent upon the findings of phase one and the adequacy of the program amendment (WV-128) submitted by WVDEP on March 29, 2022.

Monitoring and Improvements to West Virginia's Alternative Bonding System (ABS)

Separate from the 30 CFR Part 732 Notification and West Virginia Bonding Program Evaluation discussed above, OSMRE has monitored, and continues to monitor, the solvency of the West Virginia ABS.

Alternative Bonding System

During EY 2022, the Special Reclamation Fund Advisory Council (Advisory Council), in coordination with WVDEP and OSMRE, continued monitoring the State's ABS, commonly known as the Special Reclamation Fund (SRF).

The Advisory Council, through the WVDEP, contracted with Taylor & Mulder, Inc. of Potomac, Maryland to complete an actuarial study of the ABS. The actuarial review was completed by fall 2021, and the study was provided to the Legislature in early 2022. By law, an actuarial study is to be conducted on the State's ABS every two years, and informal reviews are completed annually. Their projections imply that the funds will be solvent through 2039. This projection assumes that SRF begins receiving funds transferred from the Special Reclamation Water Trust Fund in 2022. WVDEP strives to maintain a minimum balance of approximately $10 million in the SRF.

Special Reclamation/Water Trust Funds

Through the State Investment Management Board (IMB), the Advisory Council continued to invest the Special Reclamation Water Trust Fund (SRWTF) revenue in long-term bond investments. The adoption of this investment strategy has resulted in increased rates of return for the SRWTF, and to a lesser extent, for the SRF. As of June 30, 2022, the SRF had a balance of $14.1 million, a reduction of 56.5% from last year, despite a transfer from the SRWTF of $5.8 million. The SRWTF had a balance totaling $162 million, a 1.5% decrease from last year.

During the reporting period, the SRWTF funds invested in the State's IMB reported a loss of $8.7 million. Over prior years, the SRWTF had a net gain due to $40.3 million earned since investments from FY 2018. These total gains of $31.6 million are still encouraging with the hope that investments will continue to gain so the funds can be used to treat water and reclaim bond forfeiture sites into the future.

Acid Mine Drainage Inventory of Active Permits

The WVDEP continues to develop and maintain its AMD inventory of active permits. Determining current reclamation liability of active permits for both land and water treatment is critical to assessing the solvency of the SRF. The OSMRE continues to be concerned about the reclamation liabilities of existing forfeitures.

During 2020, WVDEP took steps to improve its water treatment inventory of active permits. The WVDEP tasked its inspection staff with validating the number of sites likely to be treating water after active mining operations have ceased. The WVDEP began assessing water treatment cost data for its AMD Inventory on an outlet basis. Once finalized, actuaries will have access to this information to better assess State bond forfeiture liabilities in the future. This data collection has become part of the discussion and negotiation of phase two of the West Virginia Bonding Program Evaluation, formed in response to the 30 CFR Part 732 Notification from August 23, 2021. New WV legislative language (HB4758) has just been approved by the State and will be incorporated into future oversight team agreements.

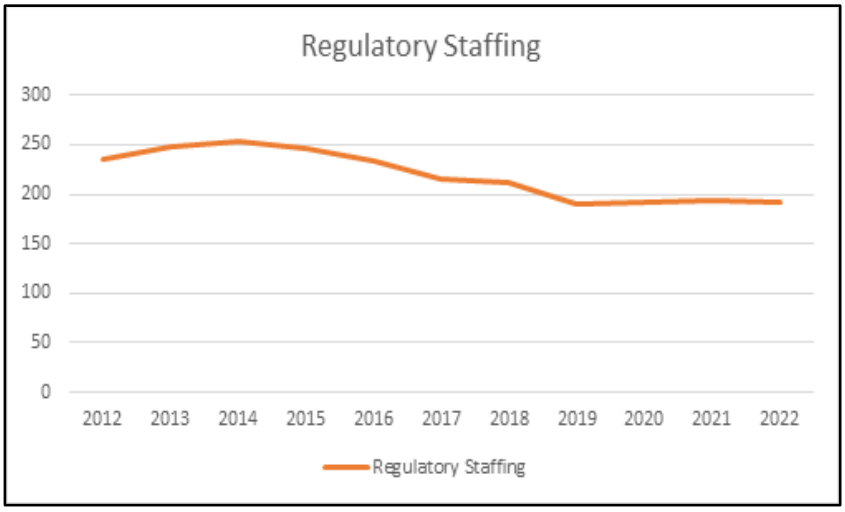


Figure 11 - West Virginia Regulatory Program Staffing Levels 2012 - 2022

State Regulatory Staffing and Program Funding

During EY 2022, the State had an approved regulatory program staff of 212.96 Full-Time Equivalent (FTE) positions, but there were 21.95 vacant positions, resulting in only 191.01 FTE filled positions as shown in Appendix 1 Table 8. State officials anticipate the vacancy rate will continue into the next EY due to recent turnover rates.

Most coal models project the State coal production will continue to decline in the future. Informal assessments show the continued decline in State coal production will result in a revenue loss. However, given any State proposal to increase revenue requires legislative approval, WVDEP must act to find a permanent source of revenue for the Regulatory Program. OSMRE will continue to monitor this closely.

VIII. OSMRE Assistance

The OSMRE supports WVDEP's Regulatory Program through many avenues. The most significant is through a yearly fiscal grant. The WVDEP's regulatory grant cycle begins on January 1 of each calendar year. For EY 2022, WVDEP received $10,199,272 to fund 50 percent of its Regulatory Program costs. The grant supports 212.96 full-time employee positions.

During this evaluation year, OSMRE assistance was also provided in the following areas.

Underground Mine Monitoring – Technical Guidance Manual

The OSMRE assisted WVDEP with the preparation of a Guidance Manual to promote consistency and efficiency in the preparation and review of the hydrologic portions of underground mine permit information. OSMRE and WVDEP completed a draft of this document in 2013. Upon review of the draft, management mutually agreed to create training modules based on the document rather than a manual. WVDEP utilizes the modules during training sessions on the topic.

Technical Training – Technical Innovation and Professional Services (TIPS) and National Technical Training Program (NTTP)

The OSMRE organizes and conducts in the classroom training courses throughout the year for State and Federal program staff. The courses are specifically oriented toward the latest technologies useful for the regulation of active mining and reclamation of abandoned mines. OSMRE's NTTP and TIPS Program administers these courses. During EY 2022, 93 WVDEP regulatory staff attended NTTP courses and 13 WVDEP employees attended TIPS courses.

Lexington Coal Company

Horizon Natural Resources Company (Horizon) filed for Chapter 11 bankruptcy protection in November 2002, resulting in the largest coal company bankruptcy in United States history at the time. In August 2004, the U.S. Bankruptcy Court in Kentucky approved the company's reorganization plan, which included the formation of Lexington Coal Company, LLC (LCC). LCC's primary responsibility was to complete land reclamation on the remaining permits and to provide for the treatment of any pollutional discharges found to be present.

The LCC submits summaries of its operation, maintenance, and capital improvement costs at sites requiring water treatment to WVDEP. Pursuant to the Trust Fund and Bond Agreements, WVDEP and LCC review and update the water treatment cost estimates and adjust the bond amounts based on the Primary and Capital Trust and Target valuations set forth in the Agreements. Based on this review, monies within the Trust Funds can be adjusted over time. If the Trust valuations are less than the Target valuations, WVDEP can request that LCC add monies to the Funds. However, if the Trust valuations are more than the Target valuations used in managing the trust funds, WVDEP is required to instruct the Trustee to disburse the excess funds to LCC.

The State's IMB invests the three LCC trust funds for WVDEP. According to the IMB, the three trust funds had a value of $10,357,110.94 as of June 30, 2022. In March 2022, LCC requested that WVDEP reimburse it for operation and maintenance and capital costs that it incurred during 2021 at these three sites. During this evaluation period, WVDEP reviewed LCC's request and applied it to a model previously developed by OSMRE for evaluating trust funds. Based on its review, WVDEP's results show that LCC was due a funds reimbursement at its three sites for 2021. The WVDEP determined that LCC's total Trust valuations were greater than its target valuations, thus making them eligible for reimbursement in 2021. WVDEP granted LCC's request and disbursed

$94,359. The WVDEP and OSMRE continue to monitor and report on LCC's water reclamation activities on these permits.

The Quality Assessment Quality Control Panel (QAQC Panel)

The Bragg vs. Robertson Lawsuit Consent Decree entered in the U.S. District Court for Southern West Virginia on December 22, 1999, created a QAQC Panel, with the purpose of "reviewing surface mining permits and to visit mine sites, as appropriate, to apprise the Director of WVDEP respecting administrative completeness of permits and to help assure consistent application of policies and procedures." The Consent Decree also specified that the Director create and post new positions to include a biologist (with at least a master's degree in biology) and trained and qualified (professional) engineer with at least a Bachelor of Science Degree in mining or civil engineering.

Five personnel make up the QAQC Panel: two coal industry representatives, two environmental representatives, and one WVDEP representative. The WVDEP also provides a full-time "Approximate Original Contour Engineer" and other WVDEP representatives, if needed, to assist and support the Panel. The OSMRE is not a member of the Panel, but often has a representative to attend meetings as an observer and resource to the team.

The plans and goals for the calendar year 2022 include:

- Visit each regional office as practical,
- Continue to review most recently submitted Surface Mining Applications,
- Conduct site visits, approximately 1-2 meeting days,
- Re-visit site(s) previously visited by the Panel in early stages of mining,
- Prepare a Frequently Asked Questions document for Surface Water Runoff Analysis,
- Take on any special project or review of issues requested by the Director,
- Prepare and present End of Year Report to the Director,
- Assist WVDEP with draft policy on submission standards for .pdf files of permit application maps and drawings, and
- Assist WVDEP with 2022 Industry Training sessions and/or planning.

The QAQC Panel expects to present its annual report to the Director in early December 2022; the report will summarize 2022 activities, recent permitting trends, plans for 2023, and any Panel recommendations to WVDEP.

ESA Stream Assessment for the Guyandotte and Big Sandy Crayfish

The WVDEP requested OSMRE provide technical assistance to determine if environmental controls on surface mine operations are adequate to protect the Guyandotte River Crayfish (Cambarus veteranus) and the Big Sandy Crayfish (Cambarus callainus), both listed in early 2016 under the Endangered Species Act due to declining range and habitat loss. Currently the draft report detailing the study and its findings is undergoing managerial review by WVDEP and OSMRE. Once finalized, the report will be available on https://www.odocs.osmre.gov/.

ABANDONED MINE LAND RECLAMATION

IX. Introduction

The SMCRA encourages States and Tribes to assume the primary responsibility for reclamation of lands and water adversely affected by past mining practices. States and Tribes may assume primary authority for reclamation of AML by obtaining approval of an Abandoned Mine Land Reclamation Plan (AMLR) under Title IV of SMCRA. Once an AMLR Plan is approved, OSMRE has the responsibility to oversee the approved AML Program to determine if it is being administered in accordance with the approved provisions. Since West Virginia has the authority to manage its AML Program, OSMRE's primary role is to:

- Monitor WVDEP's compliance with the requirements of its approved AMLR Plan, SMCRA, applicable 30 CFR regulations, grant requirements, applicable 43 CFR regulations and applicable Office of Management and Budget circulars governing financial management,
- Assess WVDEP's progress in addressing problems identified in its e-AMLIS inventory,
- Ensure WVDEP maintains its capability to fulfill SMCRA responsibilities,
- Assist WVDEP in implementing its responsibilities,
- Report on the evaluation of WVDEP's Program,
- Work with WVDEP to resolve, in a reasonable and timely manner, program and implementation issues identified through oversight,
- Pursue corrective actions provided by SMCRA, Federal rules, and OSMRE policy if WVDEP is not meeting program requirements, and
- Authorize each AML reclamation project to proceed after reviewing environmental information submitted by WVDEP to make the necessary National Environmental Policy Act (NEPA) findings and to ensure proper consultations with coordinating agencies are performed.

The AML-related problems include, but are not limited to, landslides, stream sedimentation, hazardous structures, dangerous highwalls, subsidence, loss of water, AMD, open mine portals, water-filled pits, highwalls, fumes at burning refuse piles, and unstable refuse disposal areas. A large number of AML-related hazards are still present in the coalfields and are being addressed on a priority basis.

There are two main categories of AML hazards: emergencies and priority reclamation projects. An emergency hazard is defined as a sudden danger or impairment related to coal mining that presents a high probability of substantial physical harm to the health, safety, or general welfare of the people before the danger can be abated under normal AML Program operation procedures. A priority hazard is defined as a threat to the public health, safety, general welfare, land, water resources, or the environment, but is not sudden and can be abated under normal program operations. Priority hazards are divided into three categories (priorities 1, 2, and 3) based on the impacts and severity.

The OSMRE Directive AML-1 required OSMRE to develop and maintain a computerized inventory of eligible lands and waters consistent with the requirements of SMCRA Section 403(c). This system is known as the enhanced Abandoned Mine Lands Inventory System (e-AMLIS) and was developed to assist in the planning and evaluation of reclamation projects. Grant funding provided by OSMRE to states may not be expended for the development, design, or reclamation of a coal problem unless it is contained in e-AMLIS. The States and Tribes are responsible for administering their individual AML Programs and setting the priority of each proposed project in accordance with OSMRE Directive AML-1 and their approved Reclamation Program. It is OSMRE's responsibility to approve each addition.

Each hazard is located within a specific area and is designated a certain problem type and priority based on the level of danger to the public's health and safety. The e-AMLIS allows for multiple maps and documents to be uploaded to the system and linked directly to problem areas. Programs developed within e-AMLIS allow users to enter problem type units, such as number of portals, gallons of water, or feet of highwall, and the program equates those problems to a predetermined number of acres for a problem type, GPRA acres. A consistent measurement such as this allows users to get a general idea of the overall status of reclamation throughout the nation.

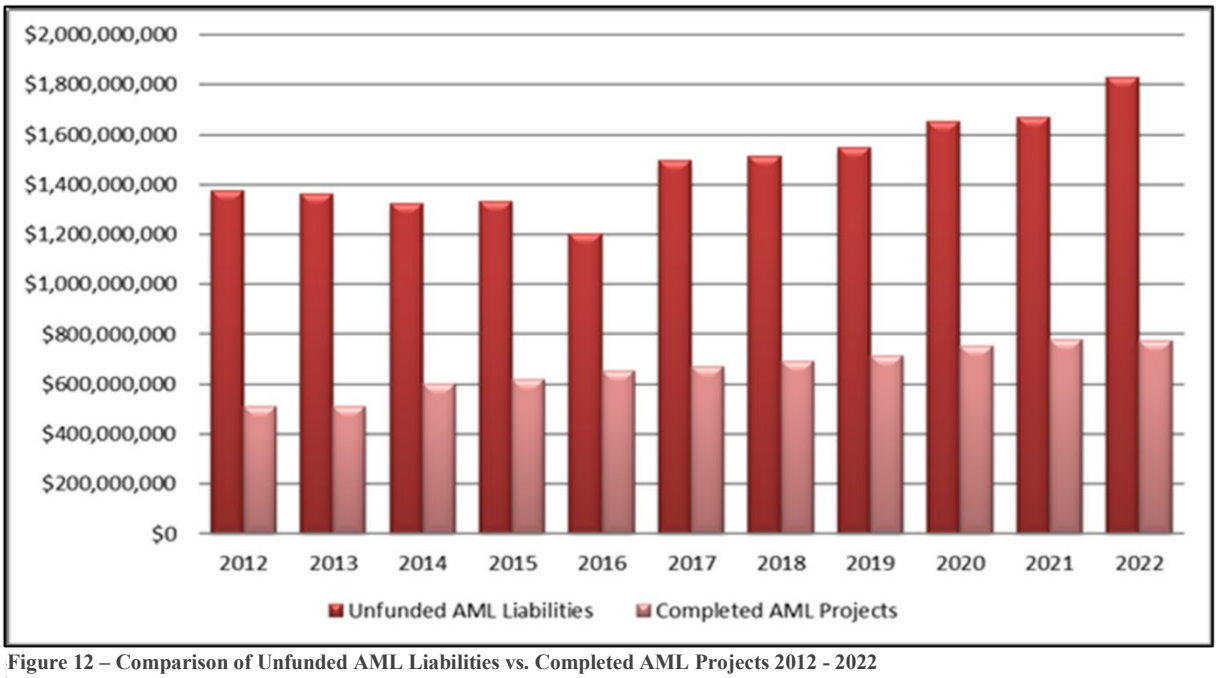


Figure 12 – Comparison of Unfunded AML Liabilities vs. Completed AML Projects 2012 - 2022

The OAMLR staff continues to amend existing information within e-AMLIS to reflect existing conditions more accurately in the field, and update e-AMLIS with completion data as sites are reclaimed. This information is available to the public at https://eamlis.osmre.gov. Figure 12 shows the status of reclamation in West Virginia and the changes that have occurred in recent years.

Program Administration

The WVDEP annually applies for a grant from OSMRE to reclaim high-priority AML sites across the State. The grant funds are used to support full-time AML employee positions, design reclamation plans, obtain consent for rights-of-entry, publish public notices in local newspapers, and to ensure the site is reclaimed and problems are abated according to the engineering design. Grant funds come from fees paid by the coal industry on each ton of coal mined. Current fees are $0.28 per ton of coal mined by surface mine methods, and $0.12 per ton of coal mined using underground methods.

The OAMLR utilized the administrative portion of their 2022 grant to fund a staff of 68 FTE positions. At the time of the grant approval, 15 of the 68 positions were vacant. The WVDEP plans to fill half of these vacancies in this grant year, if possible.

The OSMRE has approved the following four primary AML components to the West Virginia Program:

- The regular construction program abates high priority, non-emergency problems caused by past mining practices. The OSMRE approved the regular abandoned mined lands construction program on February 23, 1981.

- The State's Emergency Program abates problems caused by past coal mining practices. These must be expedited because the health and safety issues result from a sudden occurrence too serious to be addressed under the regular construction program. The OSMRE approved the State's Emergency Program section on August 26, 1988. In FY 2011, OSMRE stopped providing specific funding for emergency projects, but OAMLR continues to address emergency issues with its regular grant funding and continues to operate an Emergency Program as it did prior to the elimination of direct, Federal emergency funding.

- Potable water supply provisions allow the State to repair or replace water supplies when the damage from past mining practices occurred primarily before August 3, 1977. The OSMRE approved this program provision on July 25, 1990.

- The Acid Mine Drainage Abatement and Treatment Program (AMD set-aside) allows the State to use a percentage of its annual grant allocation to reclaim watersheds impacted by AMD. The OSMRE originally approved this program component on March 26, 1993 and limited the amount of the "set-aside" to ten percent. The 2006 Reauthorization of the AML program allowed the State to increase the amount of funding in the set-aside for AMD

> treatment and abatement to 30 percent of its annual grant. The fund, including all interest, is specifically for the abatement of the causes and treatment of the effects of AMD in a comprehensive manner within qualified hydrologic units affected by past coal mining practices.

An additional function of the OAMLR Program is the administration of the Abandoned Mine Land Economic Revitalization (AMLER) Program. During FY 2016, as part of The Consolidated Appropriation Act of 2016 (Public Law 114-113), $30 million was made available to WVDEP to partner with other entities to develop economic revitalization projects focused in areas of the State severely impacted by the economic downturn in the coal market. The focus of these grant monies is to accelerate the remediation of AML sites with economic and community development end uses, and to explore strategies to convert legacy coal sites into productive land uses. During FY 2017, FY 2018, FY 2019, FY 2020, and FY 2021, $25 million was made available to the WVDEP for each of these FYs, through subsequent AMLER grants. Throughout these six FYs, the WVDEP has submitted 60 potential projects for OSMRE's review.

The Bipartisan Infrastructure Law (BIL), P.L. 117-58 "The Infrastructure Investment and Jobs Act," was enacted on November 15, 2021. This enacted legislation included language that directly, or in some cases indirectly, impacts OSMRE. In addition to the extension of AML fee collections and mandatory AML Grant distributions, $11.293 billion in new funding was authorized to be appropriated for deposit into the Abandoned Mine Reclamation Fund. As directed by the BIL, OSMRE will be distributing approximately $725 million annually for 15 years, beginning in FY2022. Eligible States and Tribes will receive these annual BIL AML grant distributions for the remaining years, subject to any required adjustments. Subsequent AERs will include grant distributions and accomplishments related to BIL.

National Environmental Policy Act Review

The National Environmental Policy Act (NEPA) provides a process by which Federal agencies make decisions on proposed actions based on the environmental consequences of those actions and their alternatives. Traditionally, WVDEP prepares the necessary environmental documents, required for OSMRE's compliance with the CEQ's NEPA regulations. For each proposed AML construction project, WVDEP submits to OSMRE an environmental package that includes: an environmental document, AML eligibility statement, applicable supplemental information, NEPA consultation correspondence, and new or updated e-AMLIS documents when needed. The e-AMLIS documentation shows the eligible AML feature has been entered and categorized as "unfunded" with the estimated budget for the project.

The OSMRE reviews each environmental package to ensure relevant consultations with coordinating agencies were performed and comments/concerns from those consultations regarding site-specific impacts are resolved. The reviews also ensure necessary permits and proposed borrow/disposal areas have been identified. A joint OSMRE/WVDEP site visit may be conducted to gain a better understanding of the AML project scope or issues involved with the proposed construction. The OSMRE works with WVDEP to revise the environmental document as

necessary, and then issues a notification of its decision within 14 working days of receiving a completed environmental package. Immediately prior to the issuance of the ATP, WVDEP annotates e-AMLIS showing the AML feature units and costs involved with the project "funded" based on the estimated budget for the project. If OSMRE does not issue an ATP, WVDEP is notified of the reason(s) and the project package is returned for modifications.

During EY 2022, WVDEP submitted requests for 47 projects, receiving ATP on 46. Eight of the projects submitted were non-emergency reclamation, 28 were emergencies, one was labeled an AML enhancement, and nine were funded under the AMLER grants.

When an emergency occurs, WVDEP and OSMRE work cooperatively to abate the problem. In case of emergencies, the same procedures are followed as with all proposed AML projects unless the abatement measures are required sooner than when the regular NEPA process can be completed. The WVDEP submits to OSMRE emergency project information, and an inspection may be conducted to confirm the project meets the emergency criteria. Required NEPA consultations are completed at this time. The OSMRE will issue an ATP via email or phone in cases where abatement measures are required as soon as possible. After the emergency is abated, WVDEP will submit a full NEPA package to OSMRE.

Enhanced Abandoned Mine Land Inventory System Update

Last EY, the OAMLR entered 93 new Problem Area Descriptions (PAD) into eAMLIS for OSMRE's approval. This year, OAMLR submitted 164 new or significantly revised PADs into eAMLIS for OSMRE's approval, an increase of 76%.

Completed AML projects (reclaimed sites, including a variety of project types – Priority 1, Priority 2, and elevated Priority 3) continue to increase yearly as OAMLR addresses more projects (Figure 12). Unfunded AML liabilities (problem areas which are inventoried sites that require reclamation) continue to heavily outweigh completed projects which abate these liabilities. An increase in AML funding occurred after 2007, due to the 2006 reauthorization. Over the past several years, a decrease in grant funding occurred, largely the result of a federally required sequestration, less income into the State share of the AML fund because of reduced mining, and the decline of coal sales due to the significant drop in the coal market.

The OAMLR continues to complete AML projects, and the upward trend in completed projects, shown on the graph in Figure 12, reflects a continued focus on water supply projects, AMD stream treatment projects, and emergency projects. An important factor regarding the West Virginia AML inventory is the liability costs associated with the large number of highwalls, AMD stream treatment sites, and underground mine fires that do not presently appear on the inventory. The OAMLR has initiated an effort to update AMLIS with eligible abandoned highwall information. These highwalls, and the other AML features indicated above, are being added to the inventory to accurately display the State's reclamation liabilities. This effort contributed to the 76% increase in new PADs entered into eAMLIS this EY.

Below is a summary of the current West Virginia AML inventory costs as reflected in eAMLIS. The detailed AML tables attached to this report provide an in-depth look at the State AML inventory and the status of the State's reclamation accomplishments. NOTE: At the end of the EY, West Virginia was performing e-AMLIS updates. Many project pads were in edit mode, and, consequently, the data associated with said pads was unavailable to the system query. For this reason, the cumulative, completed liability status this EY ($772,542,199) is less than that reported last EY ($777,138,631). Upon this discovery, CHFO emphasized to WVDEP the impact edit mode has on data availability within eAMLIS.

West Virginia Inventory Summary (as currently reported in e-AMLIS)

Unfunded OAMLR Liability Status (AML Problems Requiring Reclamation):

$ 1,830,459,259

Funded OAMLR Liability Status (Current AML Projects under, or proposed for, reclamation):

$ 40,474,239

Completed OAMLR Liability Status (Completed AML Projects):

$ 772,542,199

X. Noteworthy Accomplishments

Overall Performance

The WVDEP's major AML accomplishments and innovations for EY 2022 include:

- Reclamation of 516 GPRA acres on 35 completed AML projects. EY 2022 projects consisted of reclamation of subsidence, public water human consumption, portals, dangerous slides, dangerous impoundments, clogged streams, clogged stream lands, dangerous highwalls, dangerous piles and embankments, highwall, surface burning, and

water problems. Reclamation reduced potential exposure to 53,168 people as estimated by WVDEP,

- Investigation of 390 AML-related complaints, each within a two-day timeframe once reported,

- Completion of 1,262 AML project inspections,

- Review of 107 applications for potential funding under the AMLER Program. During EY 2022, an additional $25 million was awarded to West Virginia for reclamation and economic development at AML sites, and

- During EY 2022, the OAMLR continued monthly project meetings via Teams conferencing with CHFO to discuss the progress, and any issues, related to any of the activities within the AML program. These meetings were originally proposed to discuss AML AMLER projects; however, they have expanded to discussion any aspect relating to the program. These meetings have been extremely beneficial to CHFO and OAMLR and will continue.

AMLNET

In EY 2008, West Virginia OAMLR began the development of a new information database and management system known as WebAML. In April 2010, WebAML became a reality, allowing AML management and staff to store and manage data electronically. The system is the primary source for information for all aspects of the AML program and continues to be utilized by CHFO staff on a regular basis. OAMLR transitioned from WebAML to AMLNET. AMLNET continues to improve and expand from the basic framework to include access to more data and programs. This EY, time was spent on data quality, operational adjustments, security adjustments, and user support.

AMD Set-Aside Projects

West Virginia currently has over 500 streams, with a combined length of approximately 2,700 miles, that are impaired due to AMD from pre-law mining.

OAMLR dedicated $5,544,132 of its 2022 AML grant funding to the set aside subaccount through its initial grant request. According to OAMLR, they plan to transfer a portion of its unobligated funding from previous grants to the set aside fund. The CHFO encourages OAMLR to make every attempt to add funding to this account on an annual basis due to the significant need in West Virginia for cleaning up AMD impacted streams.

Figure 13 outlines the annual accomplishments by OAMLR utilizing its set-aside funding. However, AER AML Table 4 (EY 2022 Completed Projects) does not include most of this data

since the expenditures of this funding is a project maintenance type requirement to continue to treat AMD impacted streams at several of the established water treatment facilities.

Project Name	GPRA Acres Reclaimed	Number of People with Reduced Exposure	EY 2022 Expenditures
Abram Creek AMD Treatment	14,633	53	$12,231
Laurel Run Mine Shaft, aka Crellin doser	250	110	$15,107
Middle Fork Limestone Sand Treatment	24,192	155	$70,616
Three Forks Creek Watershed Restoration	82,085	223	$120,259
Total	**121,160**	**541**	**$218,213**

Figure 13 - AMD Treatment Projects in Which eAMLIS Indicates Set-Aside Funding Spent During EY 2022

OAMLR continues to utilize a revised funding mechanism to accrue interest on the AMD abatement and treatment fund. Leaving the principal amount in the fund, the OAMLR uses only the accrued interest to fund the annual operation and maintenance costs associated with its AMD treatment facilities. Under this investment strategy, most funds have been included in the State of West Virginia's IMB financial investment pool. Traditionally, the State of West Virginia allowed investments in money market and short-term bond accounts. These types of investments normally provided a minimal yearly return rate, often less than one percent annually. This new investment mechanism allows the AMD set-aside funding to grow at a more substantial rate. However, since this investment strategy is subject to overall market activity, the fund is subject to both positive and negative market conditions. To date, this approach has yielded overall positive results for the set-aside fund.

XI. Utilization of OSMRE Assistance

Grants

The WVDEP's AML grant cycle begins on January 1 of each calendar year. The AML Program began drawing down awarded FY 2022 grant funding for program administration after May 5, 2022. All AML grants awarded in any FY provide for construction funding over a three-year performance period. The FY 2022 AML grant was issued during EY 2022 in the amount of

$18,480,441. This was lower than prior years due to a steady decline in OSMRE's distribution, based on historic coal production in West Virginia and other factors.

During EY 2022, funding was also provided for the 2021 AMLER grant, totaling $25 million. With this new funding, AMLER funding totals $155 million for AML projects with an economic nexus. Appendix 2 Table 7, West Virginia AML Program Grant Awards and Staffing, reports grants awarded by OSMRE for AML Program administration and construction. Notably, Appendix 1 Table 9 also includes information on AML Reclamation funding, but it does not match Appendix 2 Table 7. This is because Appendix 1 Table 9 includes the AMLER funding in the total, while Appendix 2 Table 7 only includes the traditional AML grant.

NEPA Reviews

During EY 2022, OSMRE provided assistance to WVDEP and consultants regarding NEPA documents and procedures, which included draft reviews and comments for 22 environmental assessments.

Agency Coordination

U.S. Fish and Wildlife Service Programmatic Agreement

During EY 2022, OSMRE, WVDEP, and USFWS continued to coordinate to improve consultation processes with regards to threatened and endangered species. In April 2008, OSMRE and FWS signed an agreement, titled "Programmatic Consultation on the Abandoned Mine Lands Reclamation Program" (Programmatic Agreement). The agreement allows AML to conduct project activities without prior notification to the FWS for specific actions the agencies agree would have no effect on federally listed species or critical habitats. On March 19, 2013, a new agreement went into effect, which was valid for five years (until March 19, 2018). Efforts this past EY have focused on drafting an updated Programmatic Agreement. OSMRE will continue to seek to renew the Programmatic Agreement during the upcoming EY.

U.S. Army Corp of Engineers Regional General Permit

As noted in the last AER, the USACE issued its new regional general permit on February 22, 2018, and it is valid until February 22, 2023. There were no USACE meetings conducted this EY or issues identified. CHFO will be working with USACE and OAMLR this upcoming EY to begin the renewal process for the regional general permit.

Technical Training

The OSMRE conducts classroom-style courses throughout the year in the latest technology related to active and abandoned mine regulations. OSMRE, as a direct result of the COVID-19 Pandemic, made many of these courses available through online training. Those courses not conducive to an online platform were frequently cancelled. Administration of courses is through OSMRE's NTTP and the TIPS programs. During EY 2022, OAMLR had 13 employees participate in NTTP classes and 1 employee participate in TIPS classes. Additionally, 2 employees, who perform both regulatory and AML duties, participated in TIPS courses.

XII. Public Participation and Outreach Efforts

The OSMRE's Directive AML-22 establishes policies, procedures, and responsibilities for monitoring, assisting, and evaluation of State and Tribal AML Programs. The OSMRE's monitoring or oversight serves to provide information, assistance, and feedback to States or Tribes, OSMRE, and the public to ensure the purposes and goals of the AML Program are being responsibly, efficiently, and effectively met.

The OSMRE's website, located at www.osmre.gov, contains information for public use concerning SMCRA and OSMRE's mission. There are also links to WVDEP's website where the public can find more specific information on mining in West Virginia and WVDEP's Regulatory and AML Programs.

To increase the level of transparency regarding oversight activities and the public, OSMRE posts documents for each state program on its Oversight Database (ODocs). The ODocs contains documents in accordance with OSMRE Directive AML-22. The public can utilize the ODocs built-in search to view documents covering the various aspects of OSMRE's assessment of the West Virginia Program.

During EY 2022, OSMRE and WVDEP implemented their 2022/2023 two-year Performance Agreement, which directs activities between the two organizations throughout the EY. The OSMRE routinely and periodically interacts with WVDEP and local coal associations, citizens, environmental organizations, and other groups to determine their areas of concern and receive suggestions relative to AML reclamation, as well as to provide timely information about OSMRE activities that may interest such groups. The OSMRE conducts an outreach program within the West Virginia Coalfields to solicit comments from the public and interested parties regarding the AML review process, recommendations for additional program element topics for the EY, and suggestions for improvements of future annual AML evaluation reports. The following elements are included in OSMRE's outreach effort:

- Announcement of the opportunity to provide comments, views, or suggestions prior to the development of the Performance Agreement,
- Announcement of the opportunity to provide comments on the proposed Performance Agreement after its development,
- The OSMRE acknowledgment of receipt and appreciation for public input received, and
- Posting of the proposed and final Performance Agreement on OSMRE's website.

Public input is considered in determining where OSMRE will focus its resources and what aspects of the State AML Program will be reviewed. Notices are also sent to interested stakeholders, including citizens, industry, and environmental groups. The OSMRE did not receive any AML evaluation topic suggestions for the 2022/2023 agreement.

The WVDEP public outreach process includes release of public notices and requests for comments on proposed AML reclamation projects in newspapers of general circulation in project areas. During EY 2022, WVDEP relied solely on its newspaper and internet resources for public outreach.

XIII. Results of Evaluation Year 2022 Reviews

During EY 2022, the following program areas were reviewed for their success towards the overall goal of AML reclamation.

Figure 14 - Coal Refuse Regrading at Venus (Kinder) Refuse and Portals

Regular AML Construction Program

During EY 2022, OAMLR initiated 39 non-water construction projects and, according to e-AMLIS, entered reclamation completion data for 8 projects.

As part of their water supply restoration program, the OAMLR, whether entirely or in partnership with another entity, requested authorization to proceed for one water supply project during EY 2022. See Figure 15 below for more information.

Water Supply Project Name	OAMLR Funding Amount	Number of Households Served
Beartown #401/Clarks Gap #284 WL	**$5,000,000**	**89**

Figure 15 – Water Supply Projects Funded in EY 2022

EY	Authorizations to Proceed	Completed Designs	Construction Contracts Issued
EY 2022	37	37	39
EY 2021	11	21	22
EY 2020	14	2	13
EY 2019	28	9	17
EY 2018	24	15	17
EY 2017	22	26	33
EY 2016	21	24	13
EY 2015	16	27	17
EY 2014	22	28	29
EY 2013	42	39	28
EY 2012	44	48	54
Total	281	276	282
Average	**25**	**25**	**25**

Figure 16 - Number of AML Projects by Stage*

* These numbers reflect projects possibly implemented under preceding grant years.

The actual accomplishments of the on-ground reclamation are accessible in e-AMLIS. The e-AMLIS provides the units of problem areas reclaimed for all work completed and is publicly available on the OSMRE website. The AML tables at the end of this report also provide specific information concerning the actual accomplishments. Please note, as previously discussed in section IX of this AER, at the end of the EY, West Virginia was performing e-AMLIS updates. Many project pads were in edit mode, and, consequently, the data associated with said pads was unavailable to the system query. For this reason, the cumulative, completed liability status this EY ($772,542,199) is less than that reported last EY ($777,138,631).

Emergency Program

During EY 2022, OAMLR's program investigated 390 citizen's complaints, resulting in the declaration of 28 emergencies. All emergency projects began in a timely manner, with most projects reaching completion within days or weeks of the Authorization-to-Proceed. The larger projects, such as landslide abatement projects, required a longer performance period to address the emergency aspects of the project.

Evaluation Year	Complaints Investigated	Emergency Declarations Issued
EY 2022	390	28
EY 2021	613	22
EY 2020	534	30
EY 2019	461	45

Evaluation Year	Complaints Investigated	Emergency Declarations Issued
EY 2018	353	26
EY 2017	280	31
EY 2016	281	21
EY 2015	278	28
EY 2014	249	33
EY 2013	213	22
EY 2012	261	30

Figure 17 - Number of Complaint Investigations and Emergency Declarations Issued

OAMLR Project Oversight by CHFO

The OSMRE's March 28, 2013, Directive AML-22, Evaluation of State and Tribal Abandoned Mine Land Programs provides recommendations for the policies and procedures used to monitor, assist, and evaluate AML programs. More specifically, the Directive references AML site visits as being an integral part of OSMRE's oversight responsibility. The goal of the policy is to: ensure the development of environmental documents for AML projects are in accordance with NEPA, assist with performing topic-specific evaluations, and ensure statutory requirements for oversight are met. During this EY, CHFO conducted oversight inspections of OAMLR reclamation projects in various stages of construction, including 48 site visits on a total of 20 projects, including abandoned mine land reclamation projects, AML Enhancement projects, and AMLER projects. The CHFO completed oversights during the pre-bid, construction, post-construction, and the completion phases of the projects.

AML Project Oversight

The following AML sites received CHFO oversight inspections this EY:

- Carl Mine Complex,
- Williamson Housing Authority,
- Chaffey Run Strip,
- Clear Fork Refuse Pile,
- Venus (Kinder) Portals and Refuse, and
- Left Fork of Little Sandy AMD Treatment.

Overall, CHFO found minimal issues with the construction activities and the overall contract requirements of these projects. The CHFO continues to emphasize the adherence to the project

plans and specifications when completing all AML funded projects. It is also noteworthy that the OAMLR has indicated that OSMRE field inspections provide a significant benefit toward staff development and reclamation project quality. The OAMLR continues to request an increase in the frequency of field reviews by the CHFO.

AMLER Project Oversight

OAMLR currently has funded 50 AMLER projects through six grants. To date, CHFO has issued 35 ATPs to the OAMLR to initiate construction on these AMLER projects. During the 2022 EY, CHFO completed 37 oversights on the following AMLER projects:

- Ashland Resort Park,
- ATV Trailcamp at Coaldale,
- Renaissance Village,
- Ivy Branch Off-Road Development Park,
- 106 Grace Chapel Road,
- Middle Ridge Trail System,
- Claudia Workman Wildlife Center,
- Opal Smith Highwall-Stonewall Resort,
- Rustic Ravines,
- Patriot Guardens Apple Production Project,
- Triadelphia ATV Resort, and
- Appalachian Abattoir.

There were no reportable issues found during these CHFO oversights. However, during the upcoming EY, CHFO anticipates that most of the AMLER projects vetted to date will be in some phase of construction. CHFO proposes to stay engaged in the progress of AMLER projects and will perform periodic project evaluations throughout project completion.

Figure 18 - Exhibits Inside the Claudia L. Workman Wildlife Center, FY19 AMLER Project

AML Enhancement Project Oversight:

This EY, CHFO completed five oversights on three AML Enhancement projects (No-cost reclamation Projects):

- Bottom Creek Refuse,
- Caretta Mining, and
- McAlpin Refuse Piles.

CHFO continues to focus a portion of our oversight efforts on AML Enhancement projects due to the culmination of the OAMLR Enhancement and 3.14 Oversight Study (completed in EY 18). Currently, there are six active projects being performed and one proposed AML Enhancement project under consideration by OAMLR at this time.

The OAMLR continues to address several issues which were outlined in the EY 18 AML Enhancement and 3.14 Study. This EY, OAMLR initiated an additional condition to the AML Enhancement process that requires an applicant to obtain a "Notice of Intent to Prospect" from the WVDEP's Division of Mining and Reclamation as an initial step in the AML Enhancement

process. This new requirement provides the OAMLR and the applicant with surface and subsurface information pertaining to the characteristics of the subject refuse area, which aids all parties in a sound, economic determination of the feasibility of the project. CHFO will monitor the effectiveness of this revised process during the upcoming EY, as well as report on other issues pertaining to the enhancement program.

Project Maintenance Program Oversight Study

During EY 2017, a plan was developed, and accepted, by OAMLR for an oversight study on its project maintenance program, which is used to correct deficiencies found on AML projects completed in past years. Included in this review will be an evaluation of the policy/procedures used by OAMLR to determine when maintenance is required, maintenance program planning, types of maintenance, funding, construction, inspection, procurement, and payment for services. This oversight will also include an analysis of whether maintenance projects should be subject to updated NEPA reviews, or not. This study is ongoing. This work plan is on OSMRE's website at: www.odocs.osmre.gov.

Culverted Bat Gate Oversight Study

During EY 21, CHFO completed its oversight study to evaluate the WVDEP's success as it pertains to the installation of culverted-type bat access gates, as part of Title IV reclamation projects, in accordance with SMCRA (Public Law 95-87), the ESA (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.), and the 2013 Programmatic Agreement between the USFWS and OSMRE CHFO. See the West Virginia 2021 AER for the results of the study. As a result of this study, the CHFO AmeriCorps completed a GIS based inventory of bat gates installed at AML sites. This inventory has been provided to OAMLR, which continues to utilize the data and input new information as additional bat gates are installed at AML sites.

Appendix 1 Summary of Core Data to Characterize the Regulatory Program

The following tables present summary data pertinent to mining operations and regulatory activities under the West Virginia Regulatory Program. Unless otherwise specified, the reporting period for the data contained in the tables is the EY. Other data and information used by OSMRE in its evaluation of West Virginia's performance is available for review in the evaluation file maintained by OSMRE in Charleston, WV.

Because of the enormous variations from state-to-state and tribe to tribe in the number, size and type of coal mining operations and the differences between State and Tribal Programs, the summary data should not be used to compare one State or Tribe to another.

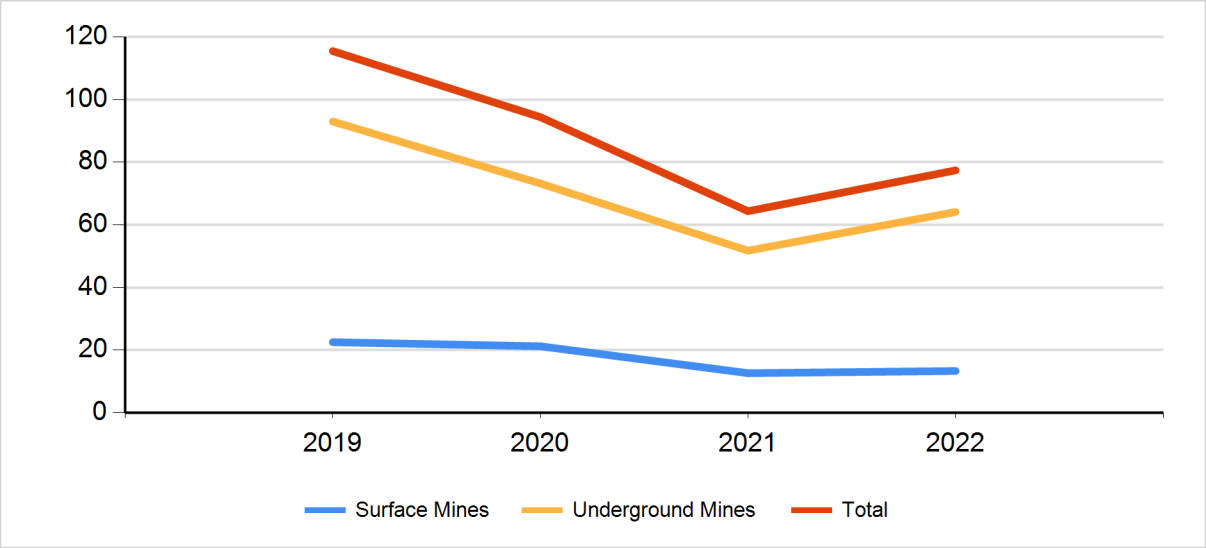
TABLE 1

COAL PRODUCED FOR SALE, TRANSFER, OR USE [A]
(Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2018	22.500	93.000	115.500
2019	21.200	73.200	94.400
2020	12.610	51.740	64.350
2021	13.300	64.100	77.400

[A] Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by other sources due to varying methods of determining and reporting coal production.

TABLE 1
COAL PRODUCED FOR SALE, TRANSFER, OR USE
DURING THE CALENDAR YEAR
(Millions of short tons)



COAL PRODUCED FOR SALE, TRANSFER, OR USE [A]
(Millions of short tons)

Calendar Year	Surface Mines	Underground Mines	Total
2018	22.500	93.000	115.500
2019	21.200	73.200	94.400
2020	12.610	51.740	64.350
2021	13.300	64.100	77.400

[A] Coal production is the gross tonnage (short tons) and includes coal produced during the calendar year (CY) for sale, transfer or use. The coal produced in each CY quarter is reported by each mining company to OSM during the following quarter on line 8(a) of form OSM-1, "Coal Reclamation Fee Report." Gross tonnage does not provide for a moisture reduction. OSM verifies tonnage reported through routine auditing of mining companies. This production may vary from that reported by other sources due to varying methods of determining and reporting coal production.

West Virginia

EY 2022, ending June 30, 2022

TABLE 2- Corrected

PERMANENT PROGRAM PERMITS, INITIAL PROGRAM SITES, INSPECTABLE UNITS, AND EXPLORATION

Mines and Other Facilities	Numbers of Permanent Program Permits and Initial Program Sites								Insp. Units[1] [2]	Area in Acres[3]				
	Permanent Program Permits				Initial Program Sites					Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Aban-doned	Total	Active	Inactive	Aban-doned	Total		Federal Lands	State/ Tribal and Private Lands	Federal Lands	State/ Tribal and Private Lands	Total Area
Surface Mines	413	159	155	727	0	0	10	10	737	0	244,266	0	13,386	257,652
Underground Mines	337	230	47	614	0	0	1	1	615	0	30,777	37	670	31,484
Other Facilities	385	101	40	526	0	0	2	2	528	0	52,240	0	15,736	67,976
Total	1,135	490	242	1,867	0	0	13	13	1,880	0	597,486	37	29,792	357,112

Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 0)	**Total Number:** 1,880	**Average Acres per Site:**	189.95
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):	**Total Number:** 1.01	**Average Acres per IU:**	189.95
Permanent Program Permits in Temporary Cessation:	**Total Number:** 125	**Number More than 3 Years:**	0

EXPLORATION SITES	Total Number of Sites	Sites on Federal Lands[4]	Exploration Inspectable Units
Exploration Sites with Permits:	0	0	0
Exploration Sites with Notices:	99	0	0

[1]An Inspectable Unit may include multiple small and neighboring Permanent Program Permits or Initial Program Sites that have been grouped together as one Inspectable Unit, or conversely, an Inspectable Unit may be one of multiple Inspectable Units within a Permanent Program Permit.

[2]Total Inspectable Units calculation includes Exploration Sites Inspectable Units

[3]When a Permanent Program Permit or Initial Program Site contains both Federal and State and Private lands, the acreage for each type of land is in the applicable column.

[4]The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management

TABLE 2- Original

PERMANENT PROGRAM PERMITS, INITIAL PROGRAM SITES, INSPECTABLE UNITS, AND EXPLORATION

Mines and Other Facilities	Numbers of Permanent Program Permits and Initial Program Sites								Insp. Units[1] [2]	Area in Acres[3]				
	Permanent Program Permits				Initial Program Sites					Permanent Program Permits (Permit Area)		Initial Program Sites		
	Active	Inactive	Aban-doned	Total	Active	Inactive	Aban-doned	Total		Federal Lands	State/ Tribal and Private Lands	Federal Lands	State/ Tribal and Private Lands	Total Area
Surface Mines	413	159	155	727	0	0	10	10	727	0	244,266	37	13,386	257,689
Underground Mines	337	230	47	614	0	0	1	1	614	0	30,777	0	670	31,447
Other Facilities	385	101	40	526	0	0	2	2	526	0	322,443	0	15,736	338,179
Total	1,135	490	242	1,867	0	0	13	13	1,867	0	597,486	37	29,792	627,315

Permanent Program Permits and Initial Program Sites (Number on Federal Lands: 0)	**Total Number:** 1,880	**Average Acres per Site:**	333.68
Average Number of Permanent Program Permits and Initial Program Sites per Inspectable Unit (IU):	**Total Number:** 1.01	**Average Acres per IU:**	336.00
Permanent Program Permits in Temporary Cessation:	**Total Number:** 125	**Number More than 3 Years:**	0

EXPLORATION SITES	Total Number of Sites	Sites on Federal Lands[4]	Exploration Inspectable Units
Exploration Sites with Permits:	0	0	0
Exploration Sites with Notices:	99	0	0

[1]An Inspectable Unit may include multiple small and neighboring Permanent Program Permits or Initial Program Sites that have been grouped together as one Inspectable Unit, or conversely, an Inspectable Unit may be one of multiple Inspectable Units within a Permanent Program Permit.

[2]Total Inspectable Units calculation includes Exploration Sites Inspectable Units

[3]When a Permanent Program Permit or Initial Program Site contains both Federal and State and Private lands, the acreage for each type of land is in the applicable column.

[4]The number of Exploration Sites on Federal lands includes sites with exploration permits or notices any part of which is regulated by the state under a cooperative agreement or by OSM pursuant to the Federal Lands Program, but excludes exploration sites that are regulated by the Bureau of Land Management

CHART 2A HISTORICAL TRENDS
NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS

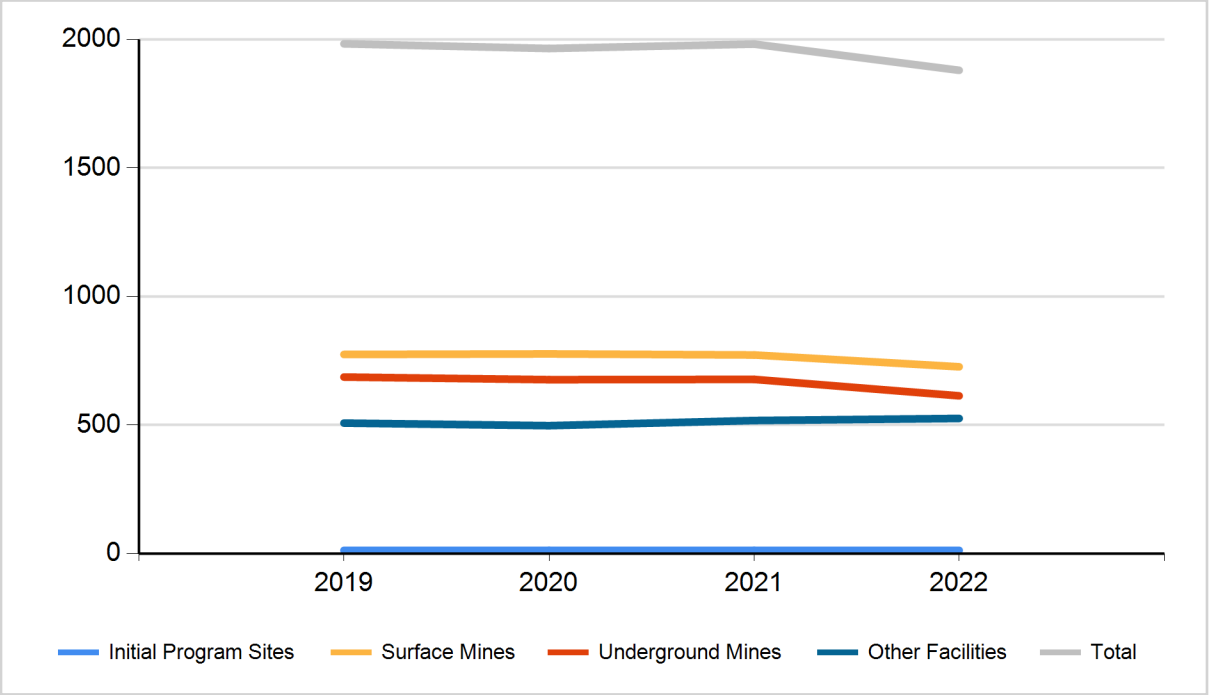


TABLE 2A

NUMBER OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	**Initial Program Sites**	**Permanent Program Permits**			**Total**
		Surface Mines	**Underground Mines**	**Other Facilities**	
2019	13	775	687	508	1983
2020	13	777	677	498	1965
2021	13	773	678	518	1982
2022	13	727	614	526	1880

CHART 2B HISTORICAL TRENDS
AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS

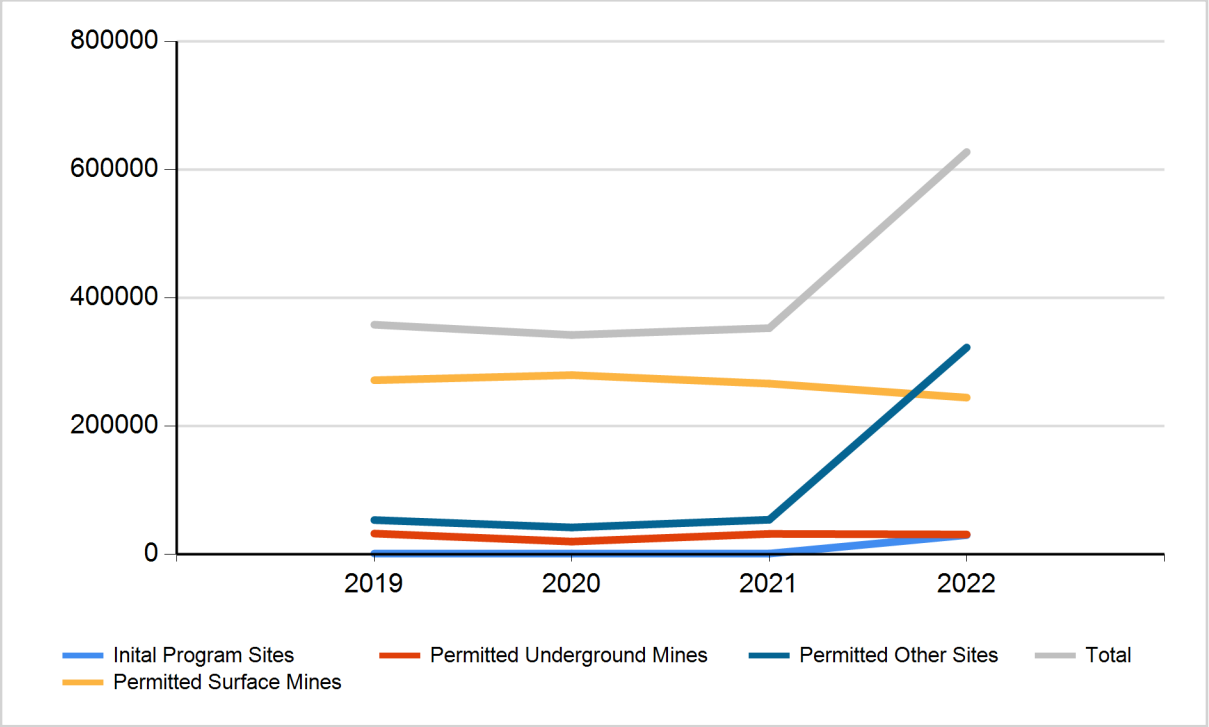


TABLE 2B

AREA OF INITIAL PROGRAM SITES AND PERMANENT PROGRAM PERMITS					
Year	**Initial Program Sites**	**Permanent Program Permits**			**Total**
		Surface Mines	**Underground Mines**	**Other Facilities**	
2019	998.0	271375.0	32222.0	53301.0	357896.0
2020	998.0	279359.0	19755.0	41803.0	341915.0
2021	998.0	266081.0	31727.0	53785.0	352591.0
2022	29829.0	244266.0	30777.0	322443.0	627315.0

TABLE 3

PERMITS ALLOWING SPECIAL CATEGORIES OF MINING

Special Category of Mining	30 CFR Citation Defining Permits Allowing Special Mining Practices	Numbers of Permits	
		Issued During EY	Total Active and Inactive Permits
Experimental Practice	785.13(d)	0	0
Mountaintop Removal Mining	785.14(c)(5)	0	163
Steep Slope Mining	785.15(c)	0	130
AOC Variances for Steep Slope Mining	785.16(b)(2)	0	31
Prime Farmlands Historically Used for Cropland	785.17(e)	0	0
Contemporaneous Reclamation Variances	785.18(c)(9)	0	124
Mining on or Adjacent to Alluvial Valley Floors	785.19(e)(2)	0	0
Auger Mining	785.20(c)	0	279
Coal Preparation Plants Not Located at a Mine Site	785.21(c)	0	0
In-Situ Processing	785.22(c)	0	0
Remining	773.15(m) and 785.25	0	0
Activities in or Within 100 Feet of a Perennial or Intermittent Stream	780.28(d) and/or (e) 784.28(d) and/or (e)	0	927

CHART 3A HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING

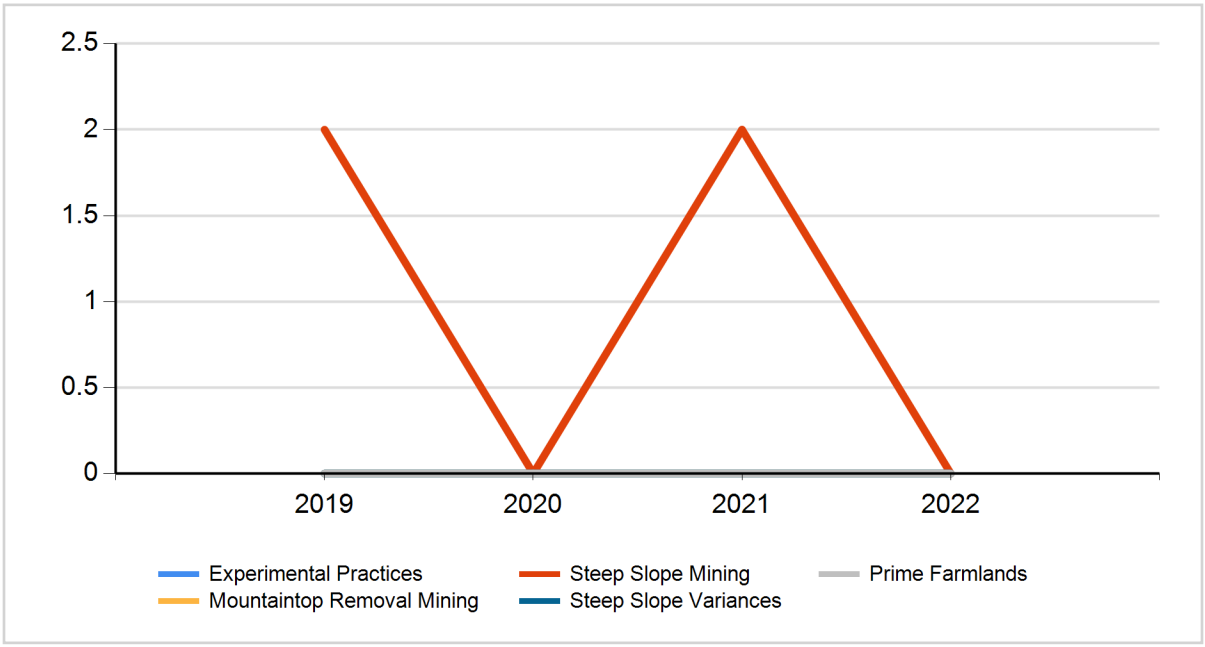


TABLE 3A

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED					
Year	**Experimental Practices**	**Mountaintop Removal Mining**	**Steep Slope Mining**	**Steep Slope Variances**	**Prime Farmlands**
2019	0	0	2	0	0
2020	0	0	0	0	0
2021	0	0	2	0	0
2022	0	0	0	0	0

CHART 3B HISTORICAL TRENDS
PERMITS ALLOWING SPECIAL CATEGORIES OF MINING

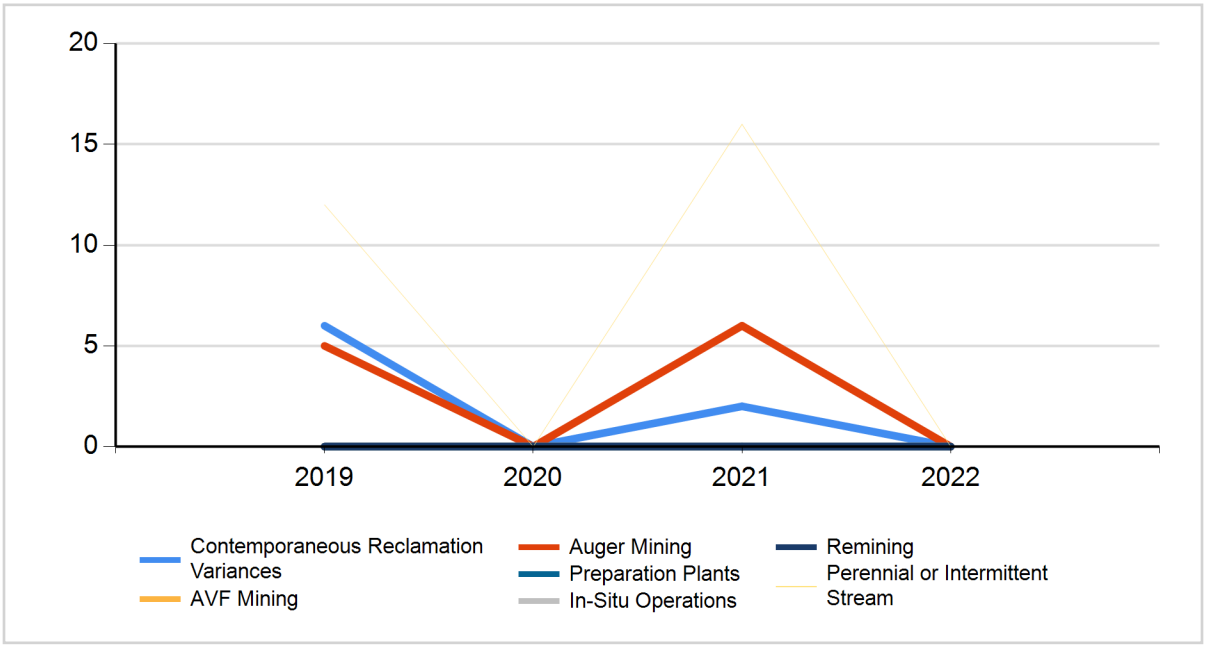


TABLE 3B

NUMBER OF PERMITS ISSUED AND REVISIONS APPROVED							
Year	**Contemporaneous Reclamation Variances**	**AVF Mining**	**Auger Mining**	**Preparation Plants Not at Mine Site**	**In-Situ Operations**	**Remining**	**Perennial/ Intermittent Streams**
2019	6	0	5	0	0	0	12
2020	0	0	0	0	0	0	0
2021	2	0	6	0	0	0	16
2022	0	0	0	0	0	0	0

West Virginia

EY 2022, ending June 30, 2022

TABLE 4- Corrected

PERMITTING ACTIVITY

Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres[1]	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	11	12	4,494	3	3	20	5	2	103	19	17	4,617
Renewals	56	52		80	58		99	67		235	177	
Transfers, sales, and assignments of permit rights	26	13		47	37		27	21		100	71	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										36	34	
Exploration notices[2]											99	
Revisions that do not add acreage to the permit area	196	188		125	124		62	62		383	374	
Revisions that add acreage to the permit area but are not incidental boundary revisions	13	10	833	1	0	0	1	0	0	15	10	833
Incidental boundary revisions	60	52	(1,075)	96	81	353	45	43	633	201	176	(89)
Totals	366	331	4,252	352	303	373	239	195	736	989	958	5,361

Permits terminated for failure to initiate operations:	Number:	0	Acres:	0.0
Acres of Phase III bond releases (Areas no longer considered to be disturbed):			Acres:	4,920.0
Permits in temporary cessation	Notices received:	79	Terminations:	0
Midterm permit reviews completed	Number:	203		

[1]Includes only the number of acres of proposed surface disturbance

[2]State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

West Virginia

EY 2022, ending June 30, 2022

TABLE 4 - Original

PERMITTING ACTIVITY

Type of Application	Surface Mines			Underground Mines			Other Facilities			Totals		
	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres[1]	App. Rec.	Issued/ Appvd	Acres	App. Rec.	Issued/ Appvd	Acres
New Permits	11	12	4,494	3	3	20	5	2	103	19	17	4,617
Renewals	60	56		80	58		99	67		239	181	
Transfers, sales, and assignments of permit rights	26	13		47	37		27	21		100	71	
Small operator assistance	0	0		0	0		0	0		0	0	
Exploration permits										36	34	
Exploration notices[2]											0	
Revisions that do not add acreage to the permit area	196	188		125	124		62	62		383	374	
Revisions that add acreage to the permit area but are not incidental boundary revisions	13	10	833	1	0	0	1	0	0	15	10	833
Incidental boundary revisions	60	52	(1,075)	96	81	353	45	43	633	201	176	(89)
Totals	366	331	4,252	352	303	373	239	195	736	993	863	5,361

Permits terminated for failure to initiate operations:	Number:	0	Acres:	0.0
Acres of Phase III bond releases (Areas no longer considered to be disturbed):			Acres:	4,920.0
Permits in temporary cessation	Notices received:	79	Terminations:	0
Midterm permit reviews completed	Number:	203		

[1]Includes only the number of acres of proposed surface disturbance

[2]State approval not required. Involves removal of less than 250 tons of coal and does not affect lands designated unsuitable for mining.

CHART 4A HISTORICAL TRENDS
NEW PERMITS ISSUED

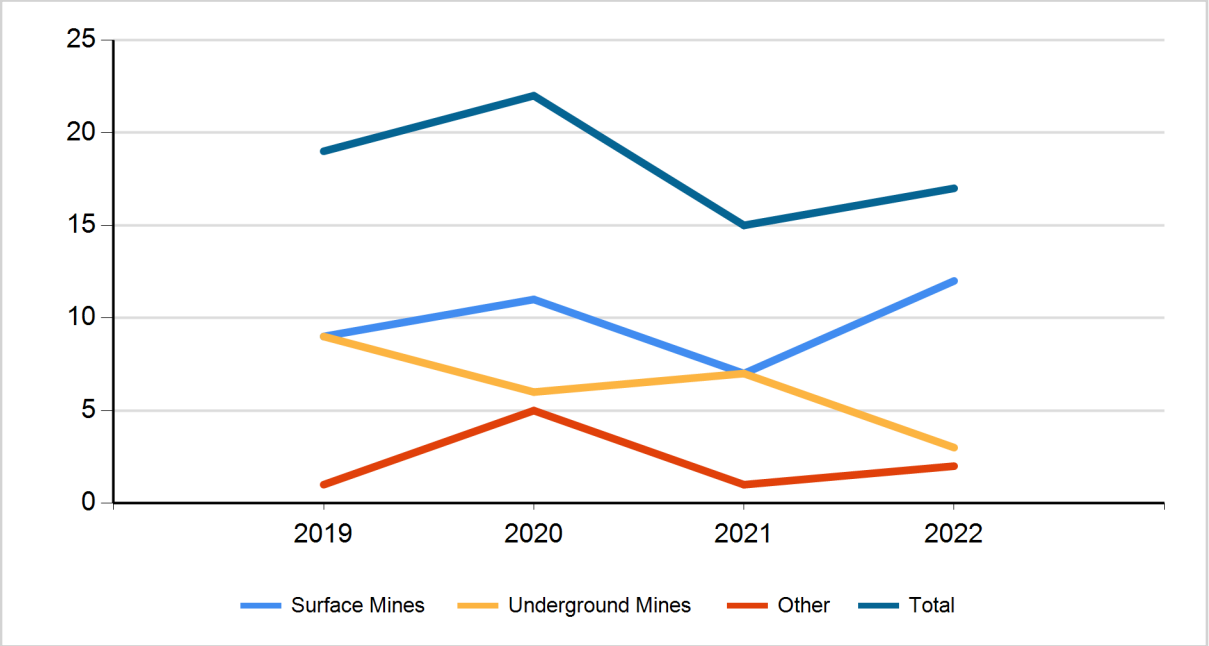


TABLE 4A

NEW PERMITS ISSUED				
Year	**Surface Mines**	**Underground Mines**	**Other**	**Total**
2019	9	9	1	19
2020	11	6	5	22
2021	7	7	1	15
2022	12	3	2	17

CHART 4B HISTORICAL TRENDS
NEW ACREAGE PERMITTED

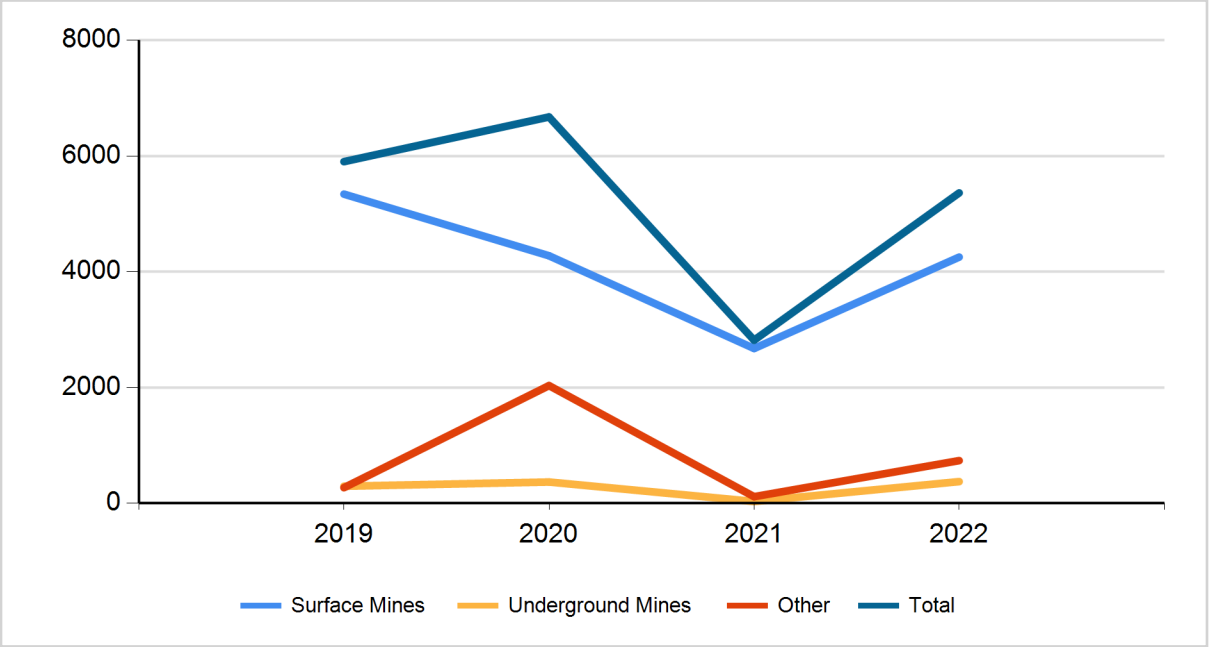


TABLE 4B

NEW ACREAGE PERMITTED				
Year	**Surface Mines**	**Underground Mines**	**Other**	**Total**
2019	5340.0	293.0	268.0	5901.0
2020	4275.0	366.0	2032.0	6673.0
2021	2673.0	30.0	113.0	2816.0
2022	4252.0	373.0	736.0	5361.0

TABLE 5 Corrected

OFF-SITE IMPACTS
EXCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	3	2	0	0	0	1	0	0	0	0	0	0	0
Land Stability	49	5	1	2	9	15	0	3	7	3	4	0	0
Hydrology	71	1	0	2	16	12	1	24	12	2	0	1	0
Encroachment	12	1	0	0	4	1	0	2	3	1	0	0	0
Other	44	9	0	5	15	4	2	1	1	1	4	1	1
Total	179	18	1	9	44	33	3	30	23	7	8	2	1

Total Number of Inspectable Units[1]: 1623

Inspectable Units with one or more off-site impacts: 101

Exploration Inspectable Units with one or more off-site impacts[2]: 0

Inspectable Units free of off-site impacts: 1522 % of Inspectable Units free of off-site impacts[4]: 94

[1] Total number of Inspectable Units is (1) the number of active and inactive inspectable units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or removed during the Evaluation Year

[2] Exploration Inspectable Units with one or more off-site impacts is a subset of Inspectable Units with one or more off-site impacts

OFF-SITE IMPACTS AT BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	2	0	0	0	2	0	0	0	0	0	0	0	0
Hydrology	12	0	0	0	0	0	0	7	2	3	0	0	0
Encroachment	1	0	0	0	0	1	0	0	0	0	0	0	0
Other	2	0	0	0	1	0	0	1	0	0	0	0	0
Total	17	0	0	0	3	1	0	8	2	3	0	0	0

Total Number of Inspectable Units[3]: 281

Inspectable Units with one or more off-site impacts: 17

Inspectable Units free of off-site impacts: 264 % of Inspectable Units free of off-site impacts[4]: 94%

[3] Total number of Inspectable Units is (1) the number of bond forfeiture sites that were reclaimed during the Evaluation Year and (2) the number of bond forfeiture sites that were unreclaimed at the end of the Evaluation Year

TABLE 5 Corrected
(Continued)

TOTAL OFF-SITE IMPACTS
INCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		**Minor**	**Moderate**	**Major**	**Minor**	**Moderate**	**Major**	**Minor**	**Moderate**	**Major**	**Minor**	**Moderate**	**Major**
TYPE OF IMPACT EVENT	**NUMBER OF EVENTS**												
Blasting	3	2	0	0	0	1	0	0	0	0	0	0	0
Land Stability	51	5	1	2	11	15	0	3	7	3	4	0	0
Hydrology	83	1	0	2	16	12	1	31	14	5	0	1	0
Encroachment	13	1	0	0	4	2	0	2	3	1	0	0	0
Other	46	9	0	5	16	4	2	2	1	1	4	1	1
Total	196	18	1	9	47	34	3	38	25	10	8	2	1

Total Number of Inspectable Units[5]: 1904

Inspectable Units with one or more off-site impacts: 118

Exploration Inspectable Units with one or more off-site impacts: 0

Inspectable Units free of off-site impacts: 1786 % of Inspectable Units free of off-site impacts[4]: 94%

[4] % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units during the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.

[5] Total number of Inspectable Units is (1) the number of active and inactive Inspectable Units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or removed during the Evaluation Year and (3) the number bond forfeiture sites that were reclaimed during the Evaluation Year and (4) the number of bond forfeiture sites that were unreclaimed at the end of the Evaluation Year.

TABLE 5 -Original

OFF-SITE IMPACTS
EXCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	3	2	0	0	0	1	0	0	0	0	0	0	0
Land Stability	49	5	1	2	9	15	0	3	7	3	4	0	0
Hydrology	71	1	0	2	16	12	1	24	12	2	0	1	0
Encroachment	12	1	0	0	4	1	0	2	3	1	0	0	0
Other	44	9	0	5	15	4	2	1	1	1	4	1	1
Total	179	18	1	9	44	33	3	30	23	7	8	2	1

Total Number of Inspectable Units[1]: 1623

Inspectable Units with one or more off-site impacts: 101

Exploration Inspectable Units with one or more off-site impacts[2]: 0

Inspectable Units free of off-site impacts: 1522 % of Inspectable Units free of off-site impacts[4]: 94

[1] Total number of Inspectable Units is (1) the number of active and inactive inspectable units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or removed during the Evaluation Year

[2] Exploration Inspectable Units with one or more off-site impacts is a subset of Inspectable Units with one or more off-site impacts

OFF-SITE IMPACTS AT BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	0	0	0	0	0	0	0	0	0	0	0	0	0
Land Stability	2	0	0	0	2	0	0	0	0	0	0	0	0
Hydrology	12	0	0	0	0	0	0	7	2	3	0	0	0
Encroachment	1	0	0	0	0	1	0	0	0	0	0	0	0
Other	2	0	0	0	1	0	0	1	0	0	0	0	0
Total	17	0	0	0	3	1	0	8	2	3	0	0	0

Total Number of Inspectable Units[3]: 281

Inspectable Units with one or more off-site impacts: 17

Inspectable Units free of off-site impacts: 264 % of Inspectable Units free of off-site impacts[4]: 94%

[3] Total number of Inspectable Units is (1) the number of bond forfeiture sites that were reclaimed during the Evaluation Year and (2) the number of bond forfeiture sites that were unreclaimed at the end of the Evaluation Year

TABLE 5- Original
(Continued)

TOTAL OFF-SITE IMPACTS
INCLUDING BOND FORFEITURE SITES

RESOURCES AFFECTED		People			Land			Water			Structures		
DEGREE OF IMPACT		Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major	Minor	Moderate	Major
TYPE OF IMPACT EVENT	NUMBER OF EVENTS												
Blasting	3	2	0	0	0	1	0	0	0	0	0	0	0
Land Stability	51	5	1	2	11	15	0	3	7	3	4	0	0
Hydrology	83	1	0	2	16	12	1	31	14	5	0	1	0
Encroachment	13	1	0	0	4	2	0	2	3	1	0	0	0
Other	46	9	0	5	16	4	2	2	1	1	4	1	1
Total	196	18	1	9	47	34	3	38	25	10	8	2	1

Total Number of Inspectable Units[5]: 1904

Inspectable Units with one or more off-site impacts: 118

Exploration Inspectable Units with one or more off-site impacts: 0

Inspectable Units free of off-site impacts: 1786 % of Inspectable Units free of off-site impacts[4]: 94%

[4] % of Inspectable Units free of off-site impacts is based on the number of Inspectable Units during the Evaluation Year. The number of Inspectable Units may vary during the Evaluation Year.

[5] Total number of Inspectable Units is (1) the number of active and inactive Inspectable Units at the end of the Evaluation Year and (2) the number of Inspectable Units that were final bond released or removed during the Evaluation Year and (3) the number bond forfeiture sites that were reclaimed during the Evaluation Year and (4) the number of bond forfeiture sites that were unreclaimed at the end of the Evaluation Year.

TABLE 6- Corrected

SURFACE COAL MINING AND RECLAMATION ACTIVITY

Areas of Phase I, II, and III Bond Releases During the Evaluation Year (EY)

Phase I Releases	Phase II Releases		Phase III Releases			Total Acres Released During the EY	
Total Acres Released in Approved Phase I Releases	Total Acres Released in Approved Phase II Releases	Acres not previously released under Phase I	Total Acres Released in Approved Phase III Releases	Acres not previously released under Phase II	Acres not previously released under Phase I or II		
7,300		1,119			811	**Phase I**	9,230
	2,628			673		**Phase II**	3,301
			4,920			**Phase III**	4,920

Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release During the Evaluation Year	33	**Other Releases - Acres**	
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year	0	Administrative Adjustments	831
Number of Inspectable Units Removed	33	Bond Forfeiture	30

Areas of Permits Bonded for Disturbance by Surface Coal Mining and Reclamation Operations

	Total Acres at Start of EY	Total Acres at End of EY	Change in Acres During EY
New Area Bonded for Disturbance			6,517
Total Area Bonded for Disturbance	340,172	340,044	(128)
Area Bonded for Disturbance without Phase I Bond Release	279,190	3,891	(275,299)
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved	47,160	3,749	(43,411)
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved	9,176	142	(9,034)
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year			894
Area Bonded for Remining	0	444	444

Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations

Disturbed Area	136,264	135,412	852

TABLE 6-Original

SURFACE COAL MINING AND RECLAMATION ACTIVITY

Areas of Phase I, II, and III Bond Releases During the Evaluation Year (EY)

Phase I Releases	Phase II Releases		Phase III Releases			Total Acres Released During the EY	
Total Acres Released in Approved Phase I Releases	Total Acres Released in Approved Phase II Releases	Acres not previously released under Phase I	Total Acres Released in Approved Phase III Releases	Acres not previously released under Phase II	Acres not previously released under Phase I or II		
7,300		1,119			811	**Phase I**	9,230
	2,628			673		**Phase II**	3,301
			4,920			**Phase III**	4,920

Number of Permanent Program Permits with Jurisdiction Terminated Under Phase III Bond Release During the Evaluation Year	36	**Other Releases - Acres**	
Initial Program Sites with Jurisdiction Terminated During the Evaluation Year	0	Administrative Adjustments	831
Number of Inspectable Units Removed	36	Bond Forfeiture	30

Areas of Permits Bonded for Disturbance by Surface Coal Mining and Reclamation Operations

	Total Acres at Start of EY	Total Acres at End of EY	Change in Acres During EY
New Area Bonded for Disturbance			6,517
Total Area Bonded for Disturbance	340,172	340,044	(128)
Area Bonded for Disturbance without Phase I Bond Release	279,190	3,891	(275,299)
Area Bonded for Disturbance for which Phase I Bond Release Has Been Approved	47,160	3,749	(43,411)
Area Bonded for Disturbance for which Phase II Bond Release Has Been Approved	9,176	142	(9,034)
Area Bonded for Disturbance with Bonds Forfeited During Evaluation Year			894
Area Bonded for Remining	0	444	444

Areas of Permits Disturbed by Surface Coal Mining and Reclamation Operations

Disturbed Area	136,264	852	(135,412)

CHART 6A HISTORICAL TRENDS
ACRES OF PHASE I, II, AND III BOND RELEASES

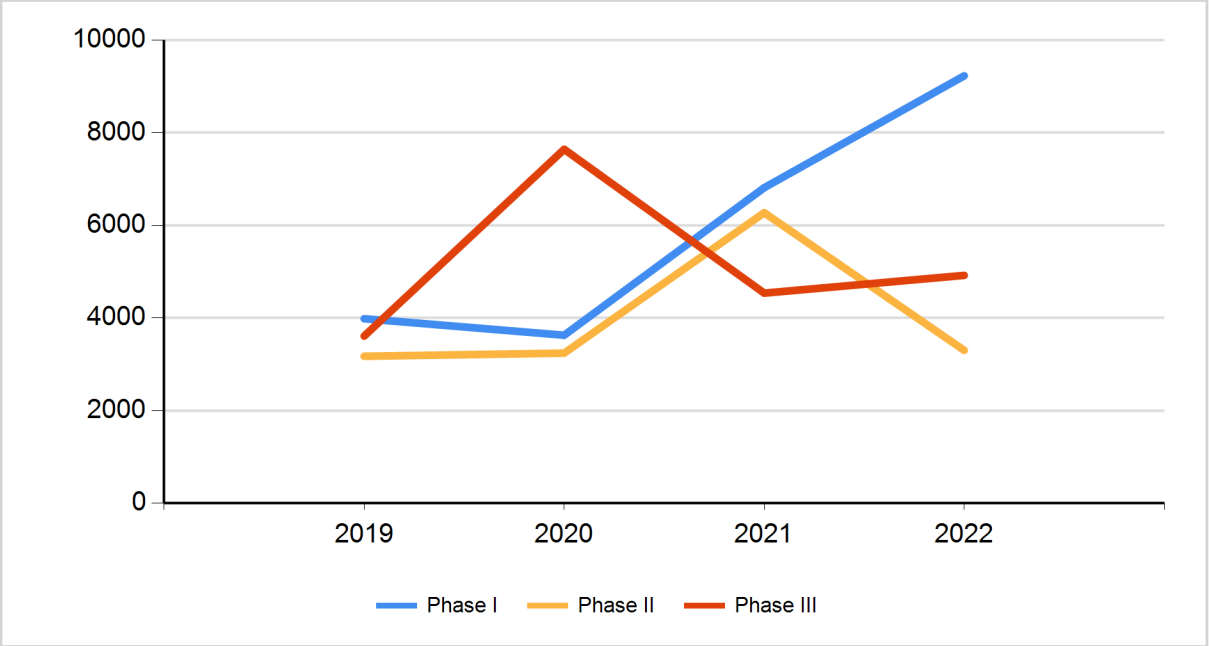


TABLE 6A

ACRES OF PHASE I, II, AND III BOND RELEASES			
Year	**Phase III**	**Phase II**	**Phase I**
2019	3609	3173	3984
2020	7643	3241	3628
2021	4537	6273	6814
2022	4920	3301	9230

CHART 6B HISTORICAL TRENDS
ACRES BONDED FOR DISTURBANCE AND DISTURBED AREA

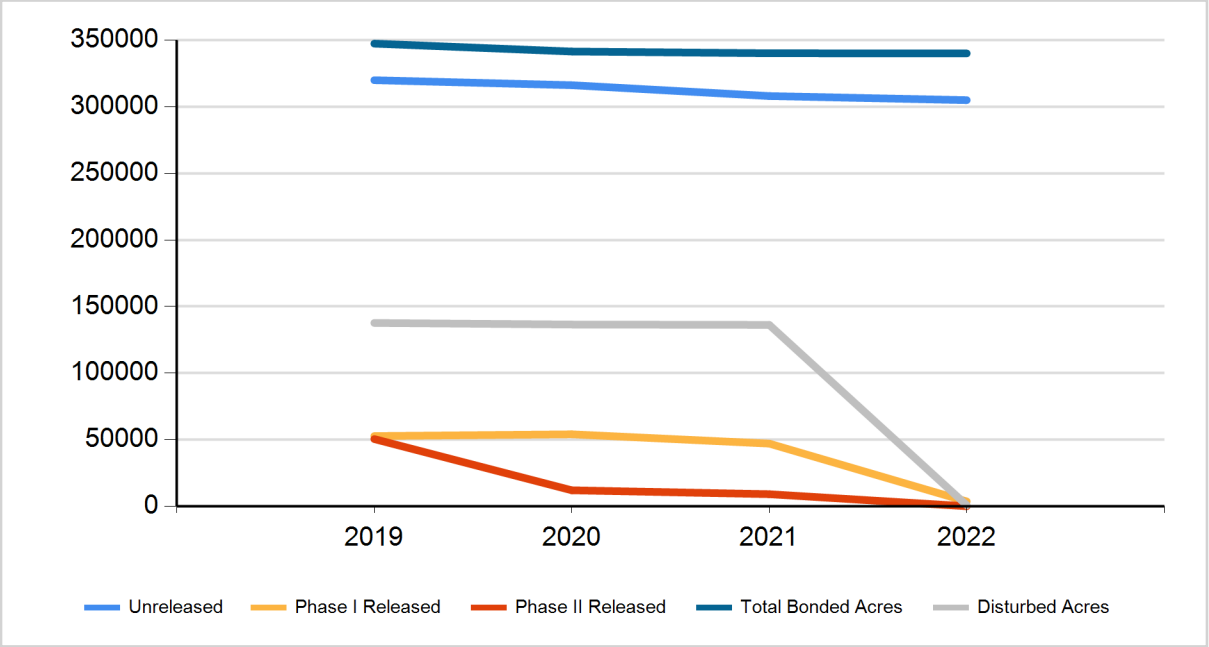


TABLE 6B

AREAS BONDED FOR DISTURBANCE AND DISTURBED AREA					
Year	ACRES BONDED FOR DISTURBANCE				Disturbed Area
	Unreleased	Phase I Released	Phase II Released	Total Bonded Area	
2019	319942.0	52810.0	50553	347390.0	137707.0
2020	316188.0	54143.0	12106	341466.0	136536.0
2021	308036.0	47160.0	9176	340172.0	136264.0
2022	304969.0	3749.0	142	340044.0	135,412

TABLE 7

BOND FORFEITURE ACTIVITY
(Permanent Program Permits)

Bond Forfeiture and Reclamation Activity	Number of Sites	Dollars	Acres
Sites with bonds forfeited and collected that were un-reclaimed at the start of the current Evaluation Year (i.e. end of previous Evaluation Year) [1]	275		22,826
Sites with bonds forfeited and collected during the current Evaluation Year	6	233,400	894
Sites with bonds forfeited and collected that were re-permitted during the current Evaluation Year	0		0
Sites with bonds forfeited and collected that were reclaimed during the current Evaluation Year	1		30
Sites with bonds forfeited and collected that were un-reclaimed at the end of the current Evaluation Year [1]	280		23,690
Sites with bonds forfeited but un-collected at the end of the current Evaluation Year	64		4,183
Forfeiture Sites with Long-Term Water Pollution			
Bonds forfeited, lands reclaimed, but water pollution is still occurring	33		
Bonds forfeited, lands reclaimed, and water treatment is ongoing	121		
Surety/Other Reclamation Activity In Lieu of Forfeiture			
Sites being reclaimed by surety/other party at the start of the current Evaluation Year (i.e., the end of previous Evaluation Year) [2]	5		719
Sites where surety/other party agreed during the current Evaluation Year to do reclamation	3		878
Sites being reclaimed by surety/other party that were re-permitted during the current Evaluation Year	0		0
Sites with reclamation completed by surety/other party during the current Evaluation Year [3]	0		0
Sites being reclaimed by surety/other party at the end of the current Evaluation Year [2]	8		1,597

[1] Includes data only for those forfeiture sites not fully reclaimed.
[2] Includes all sites where surety or other party has agreed to complete reclamation and the site is not fully reclaimed.
[3] These sites are also reported in Table 6, Surface Coal Mining and Reclamation Activity, because Phase III bond release would be granted on these sites.

CHART 7A HISTORICAL TRENDS
NUMBER OF BOND FORFEITURE SITES

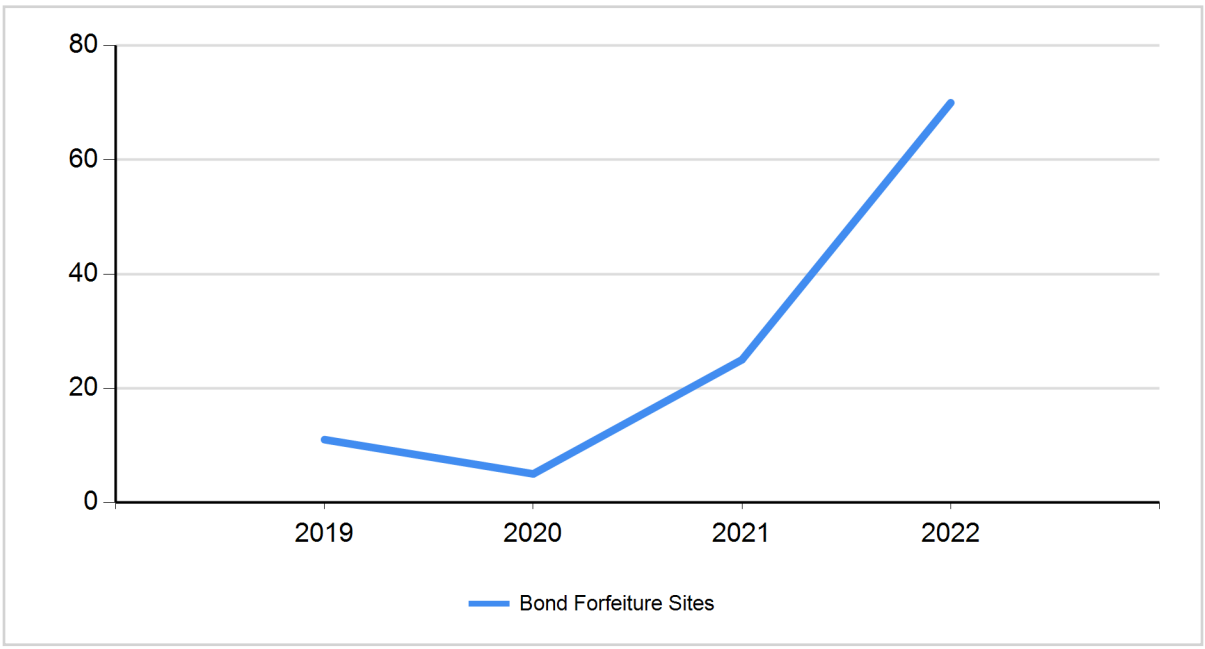


TABLE 7A

NUMBER OF BOND FORFEITURE SITES	
Year	**Bond Forfeiture Sites**
2019	11
2020	5
2021	25
2022	70

CHART 7B HISTORICAL TRENDS
ACREAGE OF BOND FORFEITURE SITES

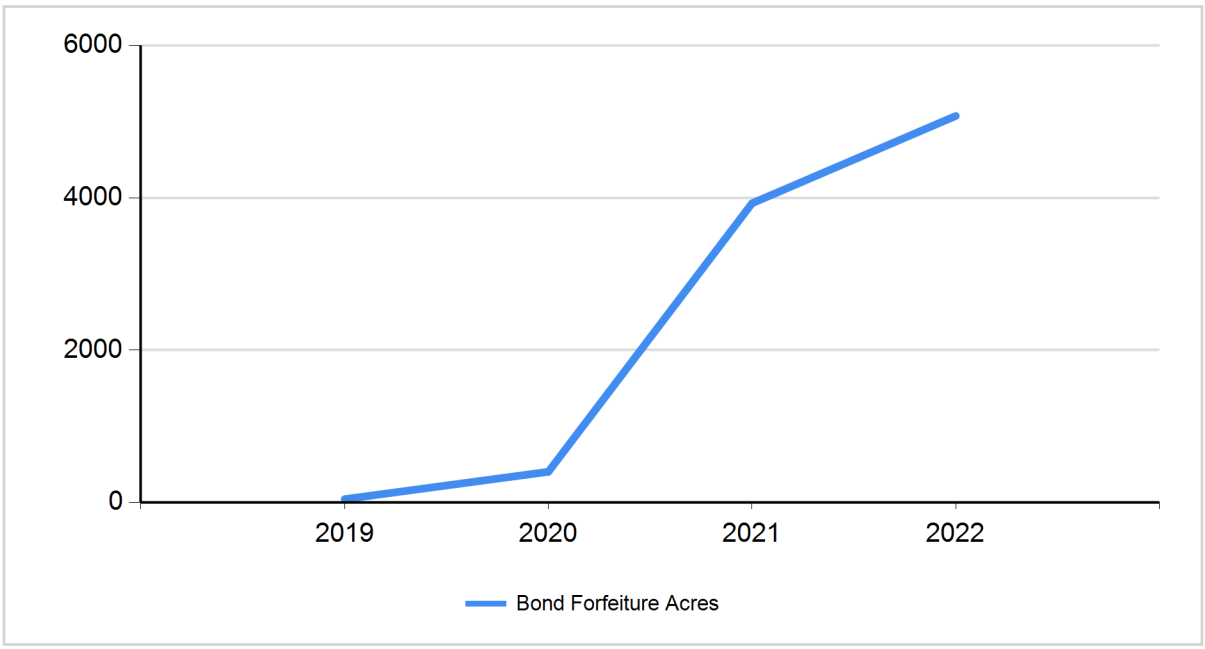


TABLE 7B

ACREAGE OF BOND FORFEITURE SITES	
Year	**Acres**
2019	44
2020	403
2021	3930
2022	5077

CHART 7C HISTORICAL TRENDS
NUMBER OF SITES WITH WATER POLLUTION STILL OCCURRING

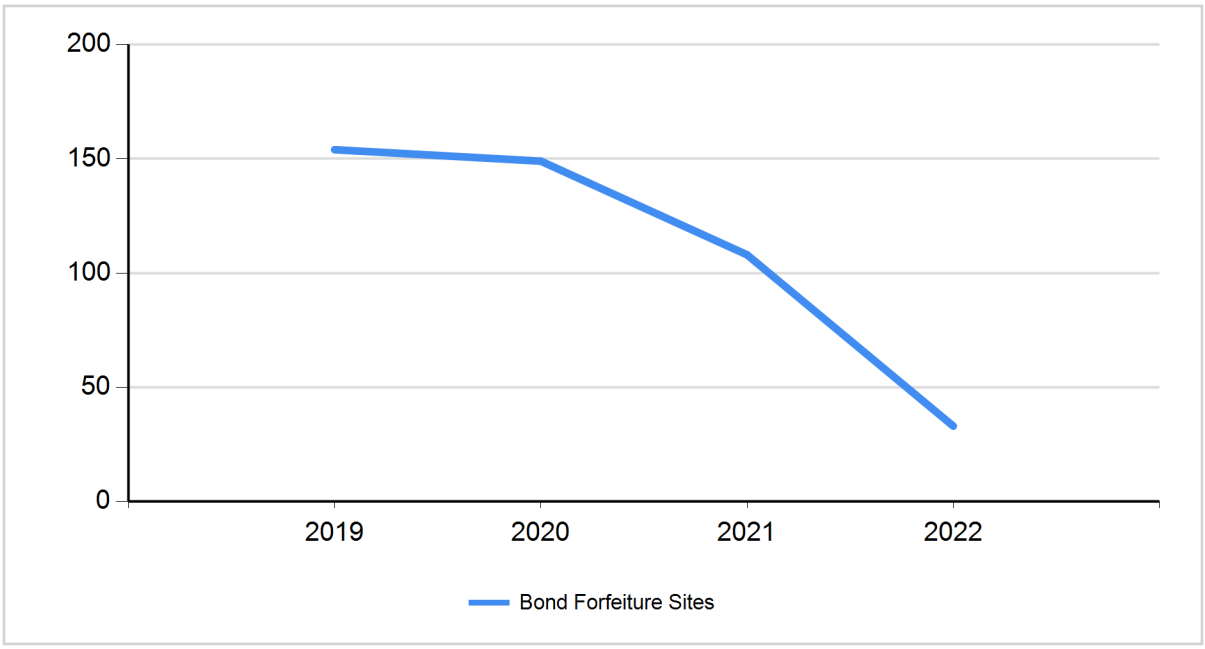


TABLE 7C

NUMBER OF SITES WITH WATER POLLUTION STILL OCCURRING	
Year	**Sites**
2019	154
2020	149
2021	108
2022	33

CHART 7D HISTORICAL TRENDS
NUMBER OF SITES WITH WATER TREATMENT ONGOING

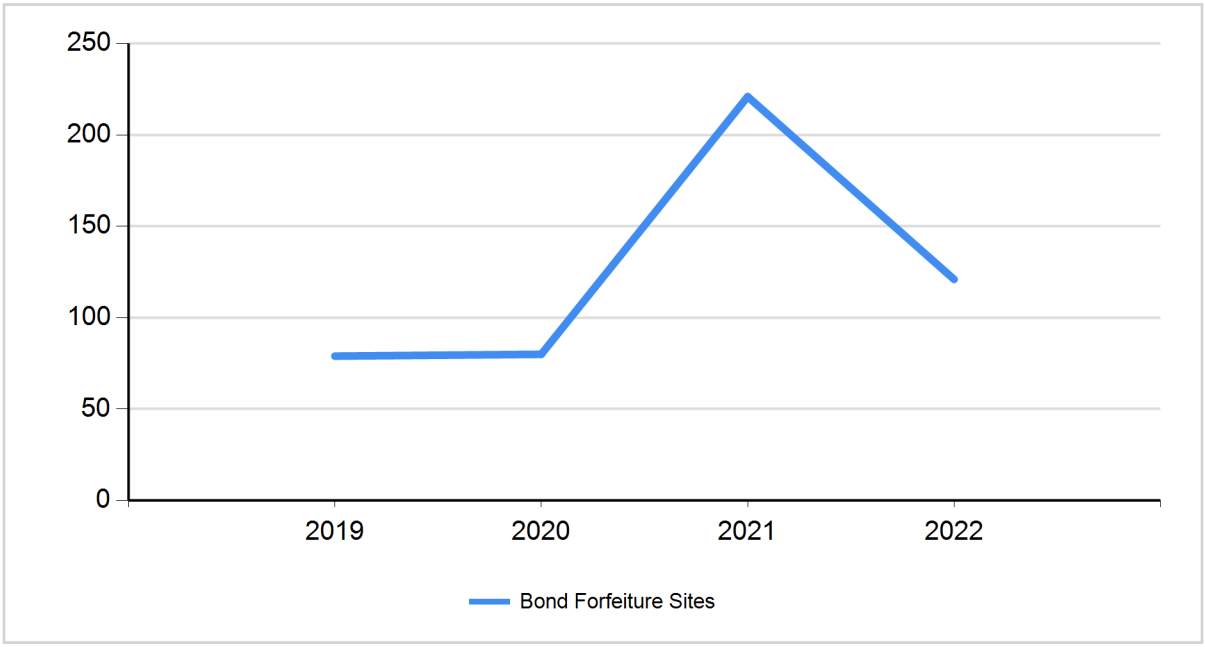


TABLE 7D

NUMBER OF SITES WITH WATER TREATMENT ONGOING	
Year	**Sites**
2019	79
2020	80
2021	221
2022	121

TABLE 8

REGULATORY AND AML PROGRAMS STAFFING	
Function	**Number of FTEs**
Regulatory Program	
Permit Review and Maintenance	59.00
Inspection	76.00
Other (supervisory, clerical, administrative, fiscal, personnel, etc.)	53.28
Regulatory Program Total	188.28
AML Program Total	62.00
TOTAL	250.28

CHART 8A HISTORICAL TRENDS
REGULATORY AND AML PROGRAMS STAFFING

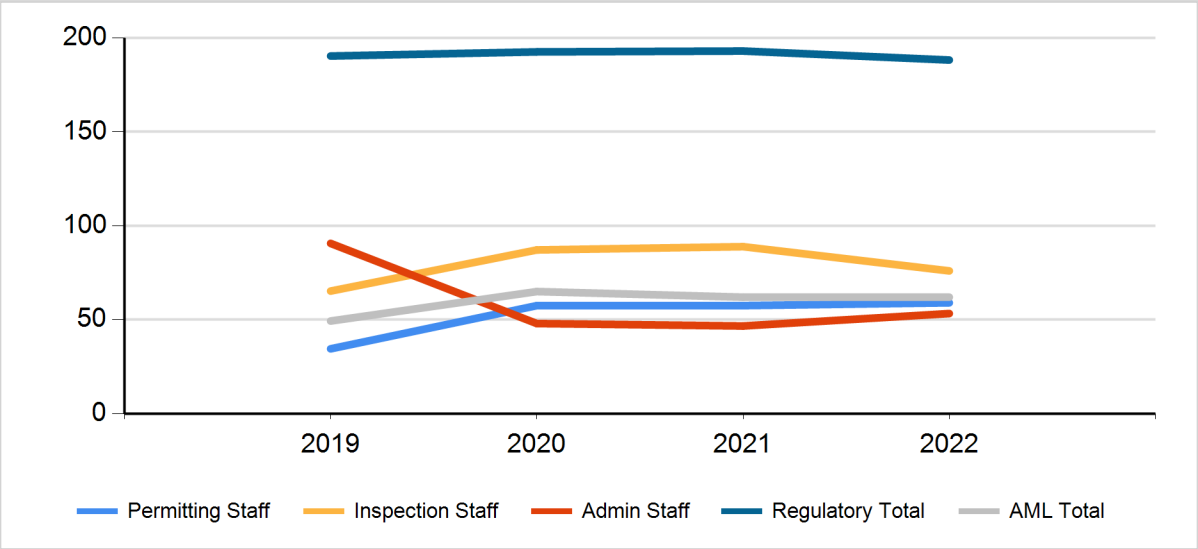


TABLE 8A

REGULATORY AND AML PROGRAMS STAFFING					
	Regulatory Program				
Year	**Permitting**	**Inspection**	**Admin**	**Total**	**AML Program**
2019	35	65	91	190	49
2020	58	87	48	193	65
2021	58	89	47	193	62
2022	59	76	53	188	62

TABLE 9

FUNDS GRANTED TO STATE OR TRIBE BY OSM (Actual Dollars Rounded to the Nearest Dollar)			
Type of Funding	**Federal Funds Awarded**	**Total Program Cost**	**Federal Funds Awarded as a Percentage of Total Program Costs**
Regulatory Funding			
Administration and Enforcement Grant	10,199,272		
Other Regulatory Funding, if applicable	0		
Subtotal (Regulatory Funding)	10,199,272	20,398,544	50
Small Operator Assistance Program Grant Funding	0	0	
Abandoned Mine Land Reclamation Funding	43,480,441	43,480,441	100
Watershed Cooperative Agreement Program	100,000	100,000	100
TOTAL	53,779,713		

CHART 9A HISTORICAL TRENDS
FUNDS GRANTED TO STATE OR TRIBE BY OSM

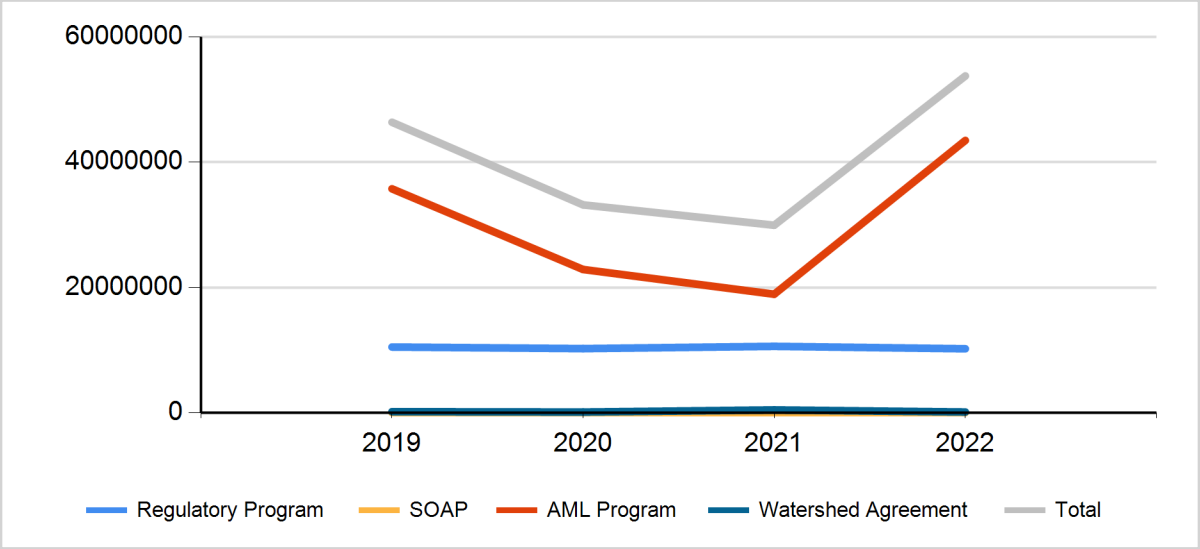


TABLE 9A

FUNDS GRANTED TO STATE OR TRIBE BY OSM				
Year	**Regulatory Program**	**SOAP**	**AML Program**	**Total**
2019	10,476,486	0	35,754,311	46,382,797
2020	10,226,486	0	22,865,581	33,185,667
2021	10,587,795	0	18,913,351	29,932,171
2022	10,199,272	0	43,480,441	53,779,713

TABLE 10

STATE INSPECTION ACTIVITY

INSPECTABLE UNITS FOR WHICH STATE MET REQUIRED INSPECTION FREQUENCY ON AN INSPECTABLE UNIT-BY-INSPECTABLE UNIT BASIS [1]

Inspectable Units (IUs)	Total number of inspectable units [2]	Number of inspections required annually		Number of inspections conducted		IUs Met Complete Inspection Frequency Requirement		IUs Met Partial Inspection Frequency Requirement		IUs Met Complete and Partial Inspection Frequency Requirements		
		Complete inspections	Partial inspections	Complete inspections	Partial inspections	Number	Percent	Number	Percent	Total number of IUs	Number that met inspection frequency	Percent
COAL MINES AND FACILITIES												
Active	1135	4540	9080	4562	10618	1130	100	1124	99	1135	1119	99
Inactive	490	1960	0	2120	492	485	99	490	100	490	485	99
Abandoned	242	242	0	359	3133	242	100	242	100	242	242	100
TOTALS [3]	1867	6742	9080	7041	14243	1857	99	1856	99	1867	1846	99

Coal Exploration Activities [4]	Complete Inspections	Partial Inspections
Exploration sites with permits	0	0
Exploration sites with notices	102	15

[1] Calculated on a site-specific basis.
[2] Total number includes both permanent program permits and initial program sites.
[3] OSM is assuming that all states have gone through the process described in 30 CFR 840.11(h) and 842.11(f) to reduce inspection frequency on abandoned/forfeited sites
[4] Includes all valid notices and permits. No inspection frequency data are provided since SMCRA does not establish a minimum numerical inspection frequency for coal exploration activities.
[5] NA - Not Available

CHART 10A HISTORICAL TRENDS
STATE OR TRIBAL INSPECTION ACTIVITY

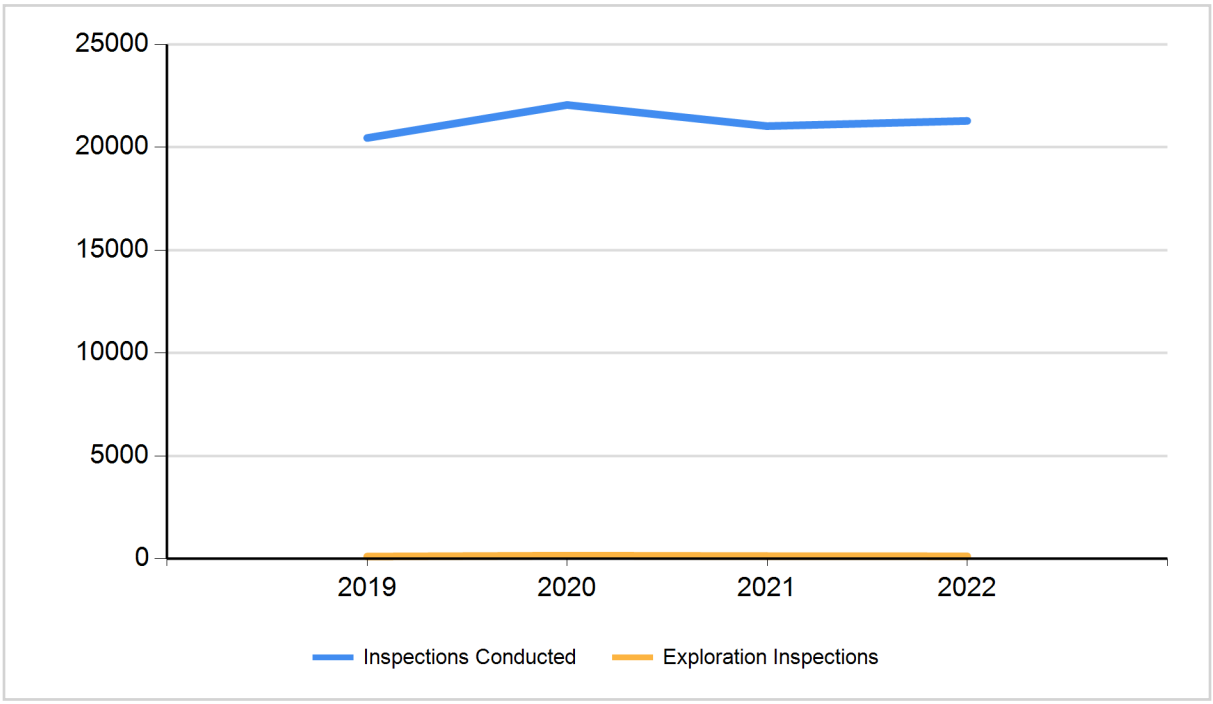


TABLE 10A

STATE OR TRIBAL INSPECTION ACTIVITY		
Year	**Inspections Conducted**	**Exploration Inspections**
2019	20453	105
2020	22058	150
2021	21030	125
2022	21284	117

TABLE 11-Corrected

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	**Number of Actions [1]**	**Number of Violations [1]**
Notice of Violation	609	652
Failure-to-Abate Cessation Order	98	98
Imminent Harm Cessation Order	6	6
[1] Does not include actions and violations that were vacated.		

TABLE 11-Original

STATE OR TRIBAL ENFORCEMENT ACTIVITY		
Type of Enforcement Action	**Number of Actions [1]**	**Number of Violations [1]**
Notice of Violation	609	609
Failure-to-Abate Cessation Order	98	98
Imminent Harm Cessation Order	6	6
[1] Does not include actions and violations that were vacated.		

CHART 11A HISTORICAL TRENDS
STATE OR TRIBAL ENFORCEMENT ACTIVITY

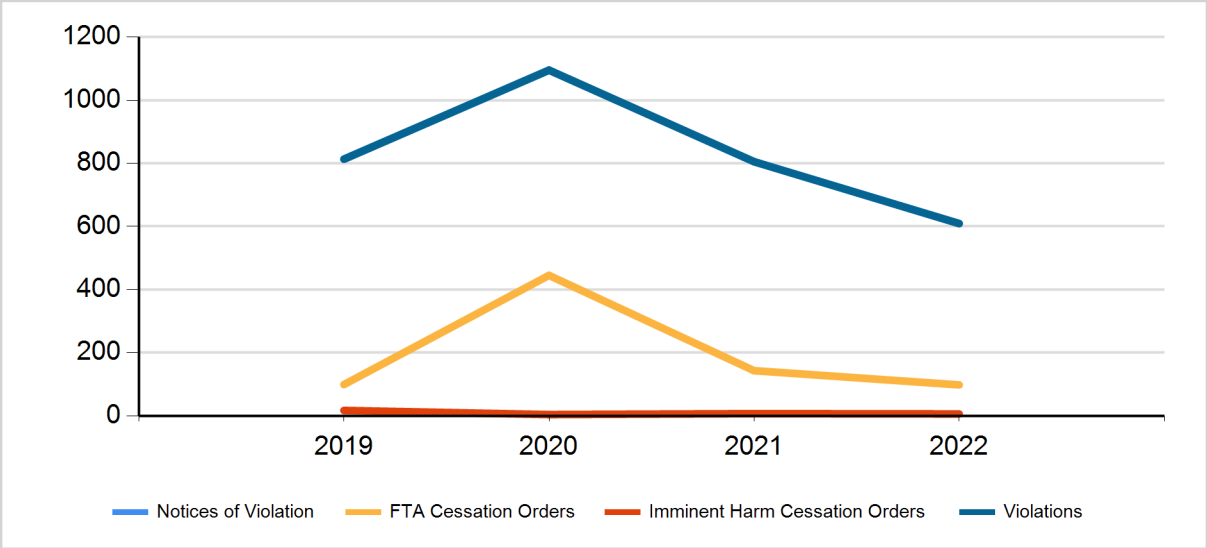


TABLE 11A

STATE OR TRIBAL ENFORCEMENT ACTIVITY				
Year	**Notices of Violation**	**Violations**	**FTA Cessation Orders**	**Imminent Harm Cessation Orders**
2019	813	813	99	17
2020	1095	1095	445	4
2021	805	805	143	7
2022	609	609	98	6

TABLE 12

LANDS UNSUITABLE ACTIVITY		
Activity	**Number**	**Acres**
Petitions Received	0	
Petitions Rejected	0	
Petitions Accepted	0	
Decisions Denying Petition	0	
Decisions Declaring Lands Unsuitable	0	0
Decisions Terminating Unsuitable Designations	0	0

CHART 12A HISTORICAL TRENDS
LANDS UNSUITABLE ACTIVITY

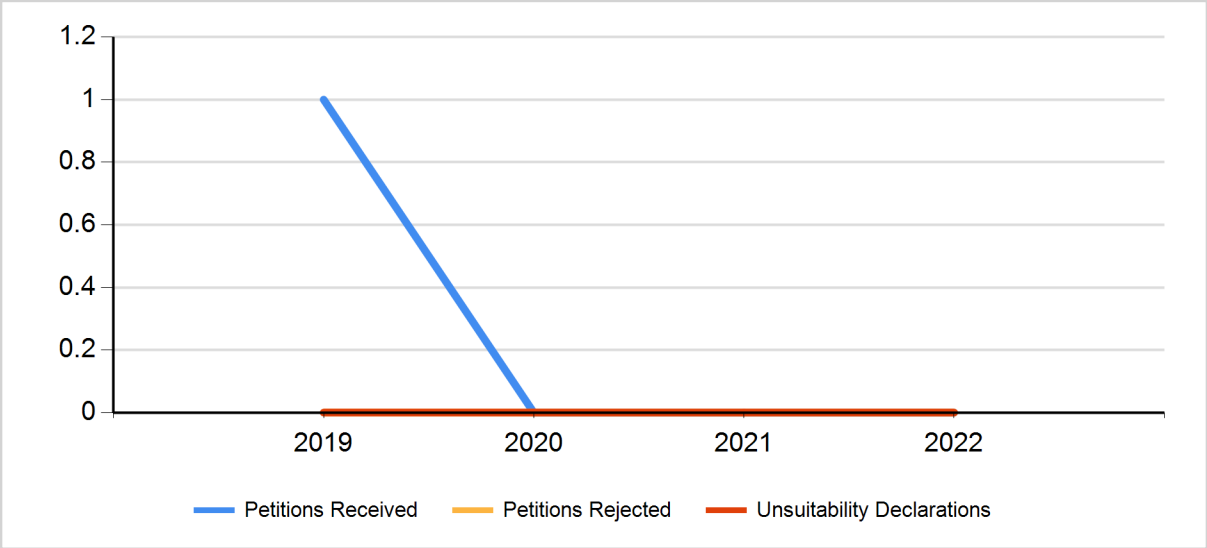


TABLE 12A

LANDS UNSUITABLE ACTIVITY			
Year	**Petitions Received**	**Petitions Rejected**	**Unsuitability Declarations**
2019	1	0	0
2020	0	0	0
2021	0	0	0
2022	0	0	0

CHART 12B HISTORICAL TRENDS
ACRES DECLARED UNSUITABLE

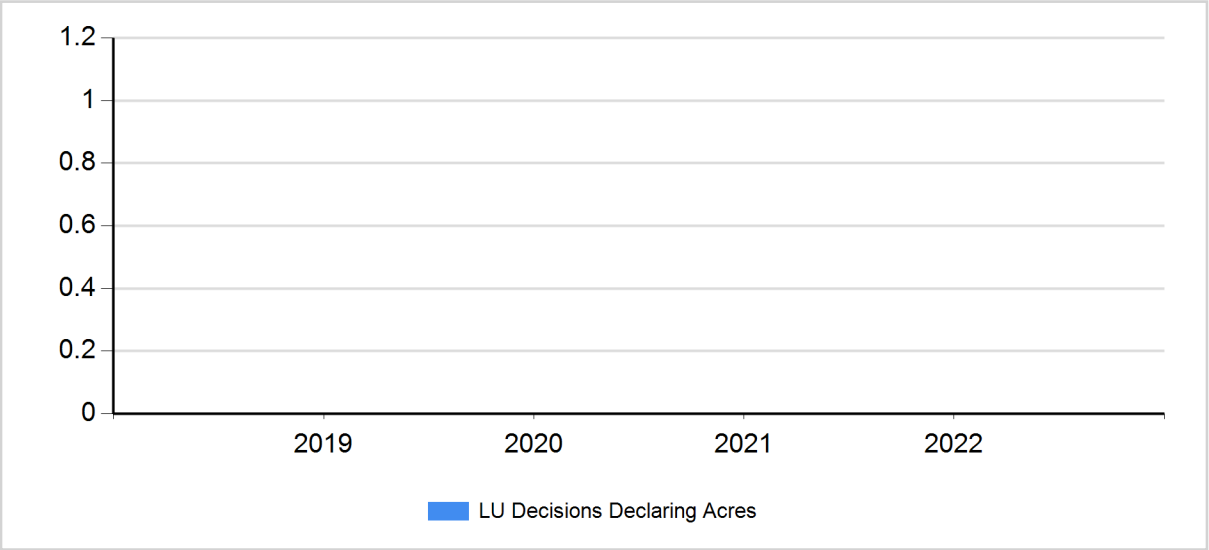


TABLE 12B

ACRES DECLARED UNSUITABLE	
Year	**Acres Declared Unsuitable**
2019	0.0
2020	0.0
2021	0.0
2022	0.0

TABLE 13

OSM OVERSIGHT ACTIVITY

Oversight Inspections and Site Visits

	Complete		Partial		
	Joint	Non-Joint	Joint	Non-Joint	Total
Oversight Inspections	45	8	86	47	186
	Technical Assistance		Other		Total
Site Visits	0		15		15

Violations Observed by OSM and Citizen Requests for Inspection[1]

Type of Action	Total number of each action
How many violations were observed by OSM on oversight inspections?	45
Of the violations observed, how many did OSM defer to State action during inspections?	17
Of the violations observed, how many did OSM refer to the State through Ten-Day Notices? [2]	0
How many Ten-Day Notices did OSM Issue for observed violations? [3]	0
How many Ten-Day Notices did OSM issue to refer citizen requests for inspection?	1
How many Notices of Violation did OSM issue?	0
How many Failure-to-Abate Cessation Orders did OSM issue?	0
How many Imminent Harm Cessation Orders did OSM issue?	0

OSM Action for Delinquent Reporting or Non-Payment of Federal AML Reclamation Fees

How many Ten-Day Notices for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0
How many Notices of Violation for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0
How many Federal Failure-to-Abate Cessation Orders for delinquent reporting or non-payment of Federal AML reclamation fees did OSM issue?	0

[1] This section does not include actions for delinquent reporting or non-payment of Federal AML fees that are reported in the last section of the table.
[2] Number of violations contained in Ten-Day Notices not including those issued to refer citizen requests for inspection.
[3] Number of Ten-Day Notices issued not including those to refer citizen requests for inspection.

CHART 13A HISTORICAL TRENDS
OSM OVERSIGHT ACTIVITY

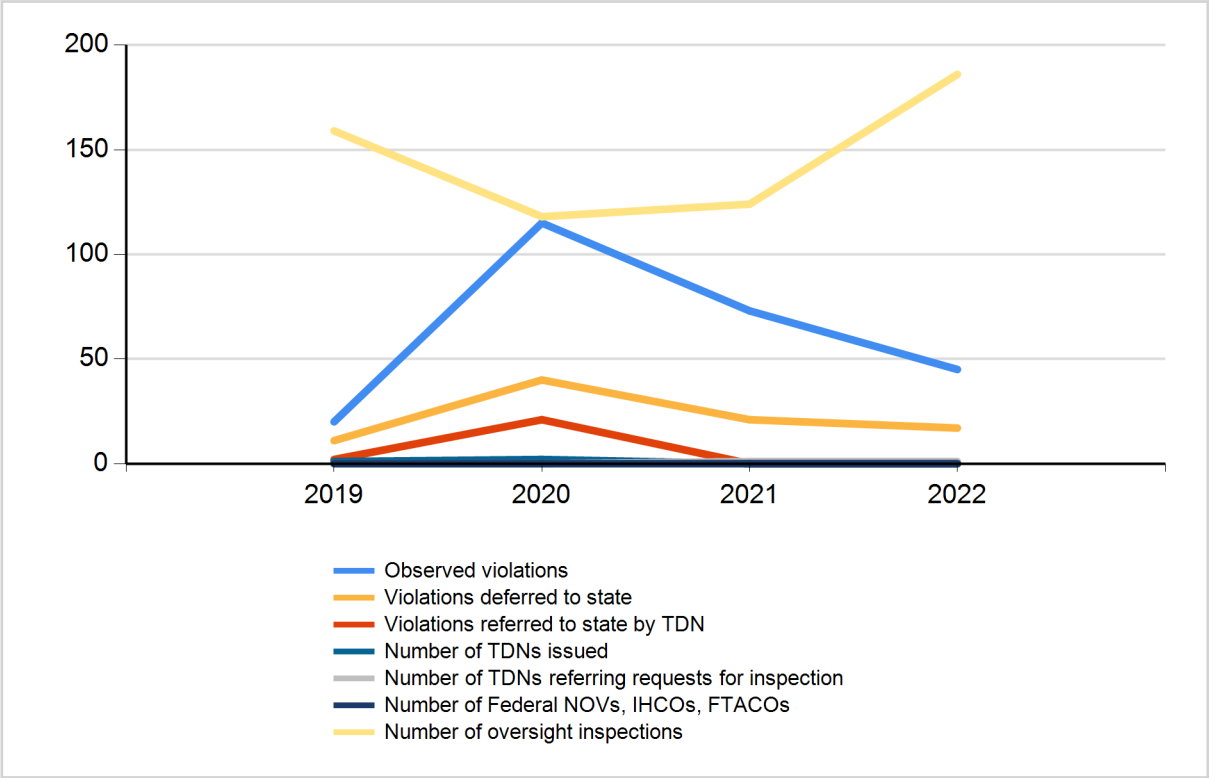


TABLE 13A

OSM OVERSIGHT ACTIVITY							
Year	**Number of violations observed on OSM oversight inspections**	**Number of violations deferred to state action**	**Number of violations referred to state by TDN**	**Number of TDN's issued**	**Number of TDN's issued to refer requests for inspection**	**Number of Federal NOVs, FTACOs, & IHCOs issued**	**Number of oversight inspections**
2019	20	11	2	1	0	0	159
2020	115	40	21	2	0	0	118
2021	73	21	0	0	1	0	124
2022	45	17	0	0	1	0	186

TABLE 14

STATUS OF ACTION PLANS

Action Plan ID	Problem Type[1]	Problem Title	Problem Description	Date Action Plan Initiated	Scheduled Completion Date	Actual Completion Date
None						

[1] Problem Type: "PA" indicates a required Program change under subchapter T or 732
"RP" indicates a Regulatory Program implementation or administrative problem

TABLE 15
(Optional)

POST-MINING LAND USE ACREAGE OF SITES FULLY RECLAIMED

(Phase III bond release or termination of jurisdiction under the Initial Program)

Land Use[1]	Acres Released
Cropland	0.00
Pasture/Hayland	227.28
Grazingland	41.37
Forestry	688.89
Residential	0.00
Industrial/Commercial	7.47
Recreation	0.00
Fish & Wildlife Habitat	1,095.34
Developed Water Resources	0.00
Undeveloped land or no current use or land management	0.00
Other - Public Utilities	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Other -	0.00
Sub-Total Other	0.00
Total	2,060.35

[1] Land uses as defined in 30 CFR 701.5 or "Other" as defined under the state or tribal program

CHART 15A HISTORICAL TRENDS
POST MINING LAND USE ACREAGES

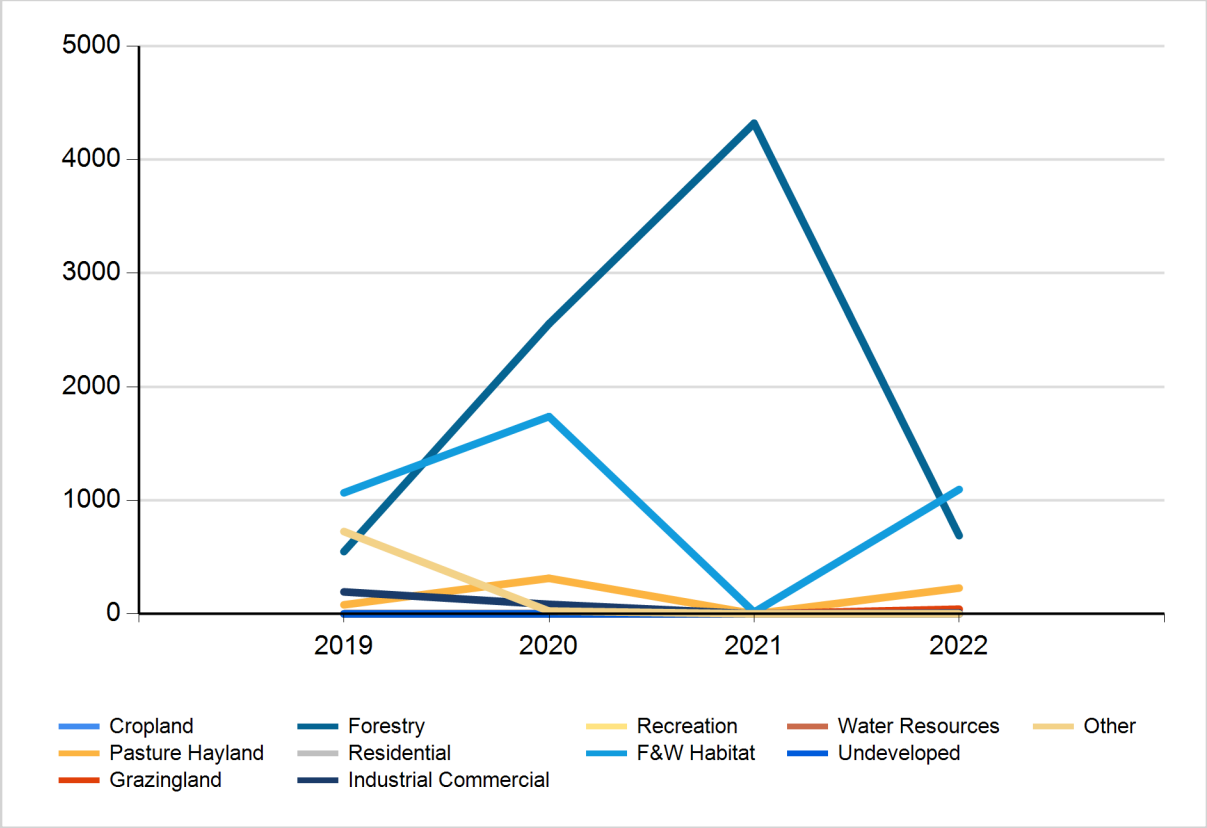


TABLE 15A

POST MINING LAND USE ACREAGES

Year	Cropland	Pasture Hay	Grazing Land	Forest	Resi-dential	Industrial Comm.	Rec-reation	F&W Hab.	Water Re-sources	Un-developed	Other
2019	0	80	0	548	0	194	0	1066	0	0	725
2020	0	313	0	2553	3	84	0	1737	0	0	25
2021	0	0	0	4320	0	0	0	15	0	0	0
2022	0	227	41	689	0	7	0	1095	0	0	0

Appendix 2 Summary of Core Data to Characterize the AML Program

The following tables present summary data pertinent to mining operations and regulatory activities under the West Virginia regulatory program. Unless otherwise specified, the reporting period for the data contained in the tables is the Evaluation Year. Other data and information used by OSMRE in its evaluation of West Virginia's performance is available for review in the evaluation file maintained by OSMRE office in Charleston, WV.

Because of the enormous variations from state-to-state and tribe to tribe in the number, size and type of coal mining operations and the differences between State and Tribal Programs, the summary data should not be used to compare one State or Tribe to another.

Table 1 – (State/Tribe) Status of AML Inventory all Priority 1, 2, and 3 Hazards on June 30, 2022					
	High Priority		Elevated Priority 3	Stand-Alone Priority 3 (Not adjacent or in conjunction w/ P1&2)	Total
	Priority 1	Priority 2			
UNFUNDED					
GPRA Acres	2,561.13	80,475.41	N/A	2,167,049.45	2,250,085.99
Dollars	$151,885,973.85	$1,133,358,291.53	N/A	$545,214,993.85	$1,830,459,259.23
FUNDED					
GPRA Acres	196.60	5,711.27	1.00	379.60	6,288.47
Dollars	$2,967,876.57	$34,385,327.60	$20,641.25	$3,100,394.00	$40,474,239.42
COMPLETED					
GPRA Acres	31,992.44	126,364.01	877.90	212,524.09	371,758.44
Dollars	$210,594,800.39	$531,490,188.28	$4,722,011.68	$25,735,199.39	$772,542,199.74

Table 2 - (State/Tribe) Accomplishments in Eliminating Health and Safety Hazards Related to Past Mining Priority 1 and 2 Hazards (As of June 30, 2022)

PROBLEM TYPE (keyword)	Clogged Stream (CS) (miles)	Clogged Stream Lands (CSL) (acres)	Dangerous Pile or Embankment (DPE)(acres)	Dangerous Highwall (DH) (feet)	Dangerous Impoundment (DI) (count)	Dangerous Slide (DS) (acres)	Gases: Hazardous /Explosive (GHE) (count)	Hazardous Equip./Facilities (HEF) (count)	Hazardous Water Body (HWB) (count)	Industrial/Residential Waste (IRW) (acres)	Portal (P) (count)	Polluted Water:Agri/Industrial (PWAI)(count)	Polluted Water: Human Consumption (PWHC)(count)	Subsidence (S) (acres)	Surface Burning (SB) (acres)	Underground Mine Fire (UMF) (acres)	Vertical Opening (VO) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)																		
Units	5,017.20	112.77	2,389.72	2,592,236.00	1,326.00	415.96	2.00	756.00	40.13	8.00	2,281.10	146.80	931.00	786.45	93.81	4,752.70	148.00	N/A
GPRA Acres	25,066.50	166.30	2,388.62	37,032.26	6,635.00	404.51	2.00	79.90	200.70	8.00	233.00	734.00	4,655.00	784.75	93.80	4,752.70	14.80	83,251.84
Dollars	$16,684,682.96	$3,654,049.00	$56,854,633.00	$614,128,902.48	$33,232,957.47	$36,898,096.00	$260,000.00	$8,152,554.00	$1,610,527.00	$59,356.00	$28,827,617.80	$57,182,370.00	$58,246,734.67	$128,799,105.50	$6,061,156.00	$231,696,633.00	$4,774,993.50	$1,287,124,368.38
ANNUAL RECLAMATION - EY2022 only (Completed)																		
Units	0.07	9.30	4.00	1,040.00	8.00	17.35	0.00	0.00	0.00	0.00	11.00	0.00	66.00	2.45	0.15	0.00	0.00	N/A
GPRA Acres	0.40	46.50	4.00	14.90	40.00	17.35	0.00	0.00	0.00	0.00	1.10	0.00	330.00	2.45	0.15	0.00	0.00	456.85
Dollars	$36,744.08	$99,345.11	$25,000.00	$164,450.00	$936,787.21	$3,661,619.94	$0.00	$0.00	$0.00	$0.00	$645,982.33	$0.00	$1,674,000.00	$571,515.38	$27,000.00	$0.00	$0.00	$7,842,444.05
HISTORICAL RECLAMATION - EY1978 - 2022 (Completed)																		
Units	73.96	181.95	5,651.11	397,870.90	2,067.50	754.54	10.80	756.80	34.30	50.60	3,660.00	87.40	26,598.00	631.78	565.95	48.25	224.30	N/A
GPRA Acres	352.67	224.40	5,651.41	5,684.17	10,337.50	753.34	10.80	75.78	170.00	50.30	366.00	433.50	132,990.00	621.36	564.55	48.25	22.43	158,356.46
Dollars	$20,427,283.29	$6,556,129.43	$154,828,594.12	$62,253,077.87	$56,840,778.45	$76,341,579.78	$338,731.36	$10,187,280.43	$1,020,486.25	$831,981.00	$40,233,592.14	$14,478,202.59	$187,179,914.71	$64,344,185.26	$30,131,241.36	$9,208,888.16	$6,883,042.47	$742,084,988.67

Table 3 - (State/Tribe) Accomplishments in Eliminating Environmental Problems Related to Past Mining Priority 3 and SMCRA section 403(b) Hazards (As of June 30, 2022)

	PROBLEM TYPE (keyword)														
	Bench , Solid Bench, Fill Bench (BE) (acres)	Industrial/Residential Waste Dump (DP) (acres)	Equipment and Facilities (EF) (count)	Gob (GO) (acres)	Highwall (H) (feet)	Haul Road (HR) (acres)	Mine Opening (MO) (count)	Pit, Open Pit, Strip Pit (PI) (acres)	Spoil, Spoil Bank (SA) (acres)	Slurry (SL) (acres)	Slump (SP) (acres)	Water (WA) (gallons)	Other (specify)	Water Supplies (WS) – Section 403(b) (count)	TOTAL
UNRECLAIMED/REMAINING HAZARDS (Unfunded)															
Units	199.80	18.50	98.10	1,147.92	3,174,866.00	14.25	135.00	46.55	599.50	10.00	32.07	2,149,995.70	154.00	0.00	N/A
GPRA Acres	199.80	18.40	9.81	1,146.42	45,365.35	13.75	13.50	46.55	599.00	10.00	31.97	2,140,634.10	1.00	0.00	2,188,089.65
Dollars	$781,401.00	$143,022.71	$695,474.00	$11,661,132.50	$527,913,101.84	$416,501.00	$1,618,791.00	$316,868.00	$3,544,233.85	$12,001.00	$2,718,932.29	$54,212,353.00	$805,749.00	$0.00	$604,839,561.19
ANNUAL RECLAMATION - EY2022 only (Completed)															
Units	0.00	0.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	121,205.00	0.00	0.00	N/A
GPRA Acres	0.00	0.00	0.00	0.00	14.30	0.00	0.00	0.00	0.00	0.00	0.00	121,205.00	0.00	0.00	121,219.30
Dollars	$0.00	$0.00	$0.00	$0.00	$100,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$1,216,333.48	$0.00	$0.00	$1,316,333.48
HISTORICAL RECLAMATION - EY1978 - 2022 (Completed)															
Units	44.00	34.15	20.00	197.96	49,363.00	11.00	25.00	14.00	1,048.10	2.00	24.61	211,920.58	0.00	0.00	N/A
GPRA Acres	43.50	34.15	2.00	196.46	705.19	11.00	2.50	14.00	1,048.10	2.00	24.61	211,318.58	0.00	0.00	213,402.09
Dollars	$180,866.00	$272,785.69	$115,416.00	$2,542,058.00	$6,515,147.91	$107,234.00	$187,701.16	$60,000.00	$6,833,635.00	$40,000.00	$835,906.45	$12,791,460.86	$0.00	$0.00	$30,482,211.07

Table 4 – (State/Tribe) Public Well-Being Enhancement
(All Priority 1, 2, and 3 AML projects completed during EY 2022)

#	PAD Number	Project Name	Problem Type(s) Reclaimed	GPRA Acres	Cost	Number of People with Reduced Exposure Potential (State Estimated /or/ Census Data)
1	WV006048	Arlington (CR 24/1) Subsidence II	S	0.10	$27,420.00	2,779.00
2	WV006206	Big Bend Drive and Bradley Memorial Drive	PWHC	35.00	$104,000.00	450.00
3	WV006912	Buffalo (Slone) Portals	P	0.20	$505,515.36	217.00
4	WV006924	Camden (Wilson) Landslide	DS	2.00	$868,000.00	114.00
5	WV006404	Clarksburg (Webb) Subsidence II	S	0.10	$7,092.00	3,169.00
6	WV006292	East Pike Street (Pennington) Subsidence II	S	0.10	$19,075.60	2,201.00
7	WV007128	East View (Sparks) Subsidence	S	0.10	$22,496.86	3,451.00
8	WV007098	Fairmont (Diven) Subsidence	S	0.30	$23,511.70	2,037.00
9	WV007131	Fairmont (Hancock) Subsidence	S	0.10	$7,920.00	2,567.00
10	WV007124	Helen's Run (Buonamici) Portals	P	0.20	$41,720.00	912.00
11	WV006686	Kingwood Water Works Herring Subarea 1 & 3	PWHC	295.00	$1,570,000.00	340.00
12	WV005868	Longview Mine Portals	DI	10.00	$203,625.00	3,169.00
13	WV007099	Lost Creek (Siders) DS	DS	0.50	$472,605.22	391.00
14	WV007080	MacArthur (Brown) Subsidence	S	0.25	$126,037.00	2,663.00
15	WV007100	Maidsville (Holbert) Subsidence	S	0.10	$64,652.58	389.00
16	WV005289	McAlpin Portals and Drainage	DI	25.00	$400,000.00	396.00
17	WV005289	McAlpin Portals and Drainage	DS	5.00	$751,106.94	
18	WV005289	McAlpin Portals and Drainage	S	0.10	$10,000.00	
19	WV007110	Morgantown (Barbe) Subsidence	S	0.10	$30,540.81	4,878.00
20	WV007111	Morgantown (Stuart) Subsdidence	S	0.10	$33,710.31	3,849.00
21	WV007106	Morgantown (Wade) Subsidence	S	0.10	$32,436.80	4,878.00
22	WV006676	Mount Clare (Fornash) CSL	CS	0.40	$36,744.08	1,130.00
23	WV006676	Mount Clare (Fornash) CSL	CSL	46.50	$99,345.11	
24	WV006647	Music Valley Road (Brown) Subsidence IV	S	0.10	$25,217.00	519.00
25	WV007129	Norton Highwall Subsidence	S	0.10	$39,558.96	75.00
26	WV002128	Pendleton Creek Strip Phase II	DH	14.90	$164,450.00	46.00
27	WV002128	Pendleton Creek Strip Phase II	DPE	4.00	$25,000.00	
28	WV002128	Pendleton Creek Strip Phase II	H	14.30	$100,000.00	
29	WV004094	Pines Country Club Subsidence V	S	0.30	$30,366.94	2,627.00
30	WV007064	Queen Shoals (Evans) Portals	P	0.20	$47,939.45	109.00
31	WV007096	Red Jacket (Blair) Burning Refuse	SB	0.15	$27,000.00	196.00
32	WV006900	Richard Mine Drainage - Access Bridge	WA	45.00	$998,118.21	1,766.00
33	WV007121	Shinns Run Subsidence	S	0.10	$29,530.00	2,201.00
34	WV007101	Shinnston (Richards) Subsidence	S	0.10	$7,947.50	469.00
35	WV007072	Shinnston (Smith) Subsidence II	S	0.10	$6,693.40	2,201.00
36	WV004458	St. James Church Subsidence IV	S	0.10	$27,307.92	469.00
37	WV007115	Summersville (Brown) Dangerous Impoundment	DI	5.00	$333,162.21	265.00
38	WV007102	Verner (Grimmett) Landslide	DS	3.85	$627,378.78	250.00
39	WV006633	Weston (Williams) Landslide	DS	6.00	$942,529.00	114.00
40	WV006871	Williamson (Hight) Drainage	P	0.50	$50,807.52	1,881.00
TOTAL				516.15	$8,940,562.26	53,168.00

Table 5 – (State/Tribe) - Partnership Financial Resources Dedicated to Protecting the Public from Adverse Effects of Past Mining (AML projects completed during EY 2022)									
#	PAD Number	Project Name	SMCRA Program Funding Source	Total SMCRA funding	Alternate Non-SMCRA Funding Source	Total non-SMCRA Funding	In-Kind Services	Total Project Funding	Comments
1	WV-5784	Beaver Creek (McElroy) Seep	WCAP	$131,025	EPA 319: $175,000	$175,000.00	$26,000.00	$332,025.00	
TOTAL				**$131,025**		**$175,000.00**	**$26,000.00**	**$332,025.00**	

Table 6 – (State/Tribe) – Reclamation Projects Started and/or Completed (AML projects started and/or Completed during EY 2022)		
Project Type	**Projects Started**	**Projects Completed**
State/Tribe (EY 2022):	39	35
Federal (EY 2022):	0	0
Total (EY 2022):	39	35

Table 7 – (State/Tribe) – AML Program Grant Awards and Staffing
(State/Tribe)
AML Program Grant Awards and Staffing
(During EY 2022)

AML Program Costs	
Administration	**$7,071,166.00**
Construction	**$5,865,143.00**
Water Supply Construction	**$0.00**
AMD Set-Aside	**$5,544,132.00**
Other(s) (Specify)	**$0.00**
Total AML Funding	**$18,480,441.00**
AML Program Staffing (full-time equivalents on June 30, 2022):	**68**

Appendix 3 State Comments and Response to EY 2022 West Virginia Annual Report

State Comments / *OSMRE Responses*

1. (Page 12) -Are all 13 of the abandoned initial program sites on Federal Lands? Table 2 shows 37 acres for surface mines and none for underground and other facilities, in previous reports this same acreage was attributed to underground mines. Why did the acreage increase drastically on table 2 for initial program sites from previous years?

   The numbers have been changed to reflect this in totals.

2. (Page 12) -This value doesn't match table 2. With the additional acreage attributed to the initial program permits, the average acres to IU is 336.68. The Other Facility acres listed on Table 2 is an error for Permanent Program acres. This should have been 52,240 acres instead of 322,443 and raises the acreage per IU considerably.

   The numbers have been changed to reflect this in totals.

3. (Page 19-20) -Page 20 does not match Table 15

   This is calculated from OSM totals of sites visited in the EY and will not reflect Table 15.

4. (Page 32) -It was agreed that this document would stay in "draft" status but be used as training modules. DEP has conducted training using the manual as a guide and will continue doing so.

   Narrative was changed to reflect this.

5. (Appendix 1) -Note 181 total includes 4 Quarry Renewals, these should be excluded from total in future.

   Table 4 has been changed to reflect this.

6. (Appendix 1) -We have previously reported the number of prospects approved here in the evaluation year (99)

   Table 4 has been changed to reflect this.

7. (Appendix 1) -36 Phase III Final actions in EY 2022, but 2 were terminated and 3 withdrawn

   Table 6 has been changed to reflect this.

8. (Appendix 1) -The total acres at end of EY and change during the EY appear to be switched.

   Table 6 has been changed to reflect this.

The Regulatory Tables are marked as 'Corrected' or 'Original' to show changes reflecting the comments.