



Fiscal Year 2023 Annual Report

Jim Justice, Governor
Harold Ward, Cabinet Secretary



**PROTECTING,
RESTORING AND
SUPPORTING ROLES IN
PROMOTING A HEALTHY
ENVIRONMENT**

The West Virginia Department of Environmental Protection's mission is to promote a healthy environment.

To do this, the agency must protect the environment while leaving room for a sustainable industry base.

Such a task requires careful balance. Its major divisions – protecting air, land, and water – plus an office regulating the oil and gas industry, must be circumspect and fair in regulating industry, permitting extraction of natural resources and protecting the public from potential pollution hazards.



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PROTECTING THE ENVIRONMENT



Division of Air Quality

The Division of Air Quality (DAQ) develops and implements regulations and related programs mandated by the federal Clean Air Act (CAA) and the state Air Pollution Control Act. It works for the protection of public health and the prevention or mitigation of environmental impacts resulting from air pollutant emissions. DAQ monitors air quality and regulates emissions of air pollutants from industrial and commercial facilities.

During FY2023, DAQ accomplished:

Air Monitoring:

- Operated 17 air monitoring sites across the state, including two air toxic sites, two fine particulate matter speciation sites, a multipollutant NCore site, and a radiation network monitor, on behalf of EPA's National Radiation Monitoring Program.
- Collected and processed more than 2,000 PM 2.5 (particulate matter less than 2.5 micrometers in diameter) and PM 10 (particulate matter less than 10 micrometers in diameter) filter samples.
- Received \$469,473 grant from the U.S. Environmental Protection Agency, which partially funded fine particulate matter (PM) monitoring, replacement monitor purchases, laboratory, and data handling activities.
- Performed nearly 500 air toxics particulate metals analyses for sites in West Virginia, as well as for the National Air Toxics Trends Site in Washington, D.C., and sites in Philadelphia and Pittsburgh, Pa., and Delaware.
- Received \$40,000 grant from EPA to partially support operation of an Inductively Coupled Plasma Mass Spectrometer (ICP-MS) to conduct air toxics metals analysis of particulate samples.

Compliance and Enforcement:

- Conducted 594 full compliance inspections of air pollution sources, 97 of which were major sources of air pollution and 52 were synthetic minors.
- Conducted 299 partial evaluations and 171 optical gas imaging inspections of air pollution sources.
- Reviewed 1140 self-monitoring reports from air pollution sources.
- Investigated 604 citizen complaints.
- Inspected 181 asbestos demolition/renovation projects

- Reviewed 415 stack test reports, relative accuracy test audits and opacity tests.
- Reviewed and approved 437 stack, relative accuracy audit, and opacity test protocols.
- Observed 122 stack and relative accuracy audit tests.
- Received and reviewed 187 Title V annual certification reports.
- Issued 32 notices of violation.
- Negotiated 7 consent orders to settle violations.
- Collected \$304,200 as a result of the consent orders.

Education and Outreach:

- From July 1, 2022 to June 30, 2023, the DAQ Outreach Team participated in 20 events across six counties in West Virginia where staff spoke to over 4,750 visitors. Additionally, DAQ put up the Energy Tree at the DEP office in Kanawha City.

Hazardous and Solid Waste Air Program (HSWAP):

- Conducted 36 compliance site inspections at hazardous waste air pollution sources.
- Conducted five used and waste oil burner source inspections.
- Assisted in the development/update of the 2022-23 DAQ air rules 45CSR (code of state rules) 18, 45CSR25 and 45CSR34.
- Submitted to EPA the required grant reports on the Resource Conservation and Recovery Act (RCRA) and the CAA 111(d)/129 programs.
- Assisted the Division of Water and Waste Management on revisions to the West Virginia RCRA Hazardous Waste State Authorization Program for combustion, thermal treatment, and subparts AA, BB, and CC.
- Worked on ongoing CAA 111(d)/129 plan revisions for commercial industrial solid waste incinerators for EPA approval.
- Worked on rule changes to 45CSR23 for Municipal Solid Waste Landfills and assisted with the submission of a corresponding State Plan.
- Assisted in the review of 42 stack test reviews.
- Conducted 9 stack test observations.

Permitting

Title V Program:

- Issued 48 permit revisions, including one administrative amendment, and 39 minor and eight significant



modifications.

- Issued 52 renewal permits.
- Issued one initial permit
- New Source Review Program:
- Issued 76 Rule 13 construction/modification permits.
- Issued four temporary permits.
- Issued three relocation permits.
- Issued 95 administrative updates to existing permits.
- Issued 151 general permit registrations and reviewed 184 Alternative Operating Scenarios and 414 Annual Certifications.
- Rendered 49 decisions on permit determinations.
- 7) Completed nine withdrawal requests.
- 8) Held three public meetings.

Planning:

- Submitted nine comment letters to the U.S. EPA regarding proposed federal regulations impacting West Virginia.
- Submitted the Commercial, Industrial, Solid Waste Incineration (CISWI) State Plan to the U.S. EPA and withdrew the ACE State Plan.
- Proposed twelve rules for the 2024 Legislative Session, including eight rules related to the SSM SIP Call and the repeal of the ACE Rule (45CSR44) which was vacated by the DC Circuit.
- Finalized five rules during the 2023 Legislative Session, including the Title V Permitting Rule (45CSR30) which revised the fee structure in response to several U.S. EPA audit reports.
- The DAQ fee database and invoice generated were modified to reflect the revised Title V fee structure to implement the revised Title V Rule when the 2023 invoices were issued.
- Collected emission inventory data for calendar year 2022 from 159 major Title V facilities and quality assured the data for the FY2023 annual fee collection program.
- Reviewed, replicated and/or approved air dispersion modeling to assess impacts for three facilities and completed ethylene oxide modeling report.

Small Business Assistance Program (SBAP):

- Provided assistance to 155 small businesses (104 in depth, with 55 site visits).

Division of Mining & Reclamation

The Division of Mining and Reclamation (DMR) safeguards the environment during coal mining. It ensures prompt compliance and proper reclamation of mining sites and maintains a statewide database for mining operations.

During FY2023, DMR accomplished:

Permitting

Article 3 – Coal Mining

- Received 16 applications for new mining permits.
- Approved 22 applications for new mining permits, for a total of 4,567.64 acres.
 - Surface permits, for 3,950.26 acres.
 - Underground permits, for 69.14 acres.
 - Other type permits, for 548.24 acres
- Approved 16 permit amendments, for 1,451.32 acres.
- Approved 51 notices of intent to prospect.
- Approved 272 permit renewals.
- Approved 204 incidental boundary permit revisions, for -408.5 acres.
- Approved 358 permit revisions.
- Approved 42 incremental bonding applications.
- Approved 25 operator assignments.
- Approved 16 permit transfers.
- Approved 11 dam certificates.
- Approved 79 emergency warning plans.
- Processed 287 withdraws, denials or terminations of applications.

Article 4 – Minerals other than Coal

- Approved 0 applications for new quarry permits.
- Approved 15 applications for quarry modifications.
- Approved 64 quarry annual bonding applications.
- Article 11 –NPDES related to mining
- Approved 15 applications for new NPDES permits.
- Approved 271 permit reissuances.
- Approved 208 permit modifications.
- Approved 21 permit transfers.
- Processed 5,472 electronic discharge monitoring reports (eDMRs).
- Processed 17 withdraws, denial or terminations of applications.



Inspection and Enforcement

- Conducted 23,693 inspections (18,119 Art. 3 and 5,574 Art. 11)
- Met mine inspection frequency 99.97% percent of the time.
- Approved 4 permits for Phase 1 release, for a total of 231.64 acres
- Approved 6 permits for Phase 2 release for a total of 269.16 acres.
- Approved 45 permits for Phase 3 (final) release for a total of 481.23 acres released back to landowners.
- Approved 38 incremental Phase 1 releases for a total of 4,291.37 acres.
- Approved 17 incremental Phase 2 releases for a total of 1,715.27 acres.
- Approved 45 incremental Phase 3 releases for a total of 2,274.63 acres.
- Approved 24 Prospect releases.
- 9 Approved Planting Plan releases.
- 67 Approved inactive status requests.
- Issued 985 notices of violations (737 Art. 3 and 248 Art. 11)
- Issued 105 cessation orders.
- Issued 6 consent orders
- Processed 3,290 electronic certifications (eCerts).
- Processed 328 pre-subsidence surveys.
- Responded to Citizen Complaints within 48 hours 96% percent of the time.
- Investigated 355 complaints.
- Held 60 assessment conferences.
- Revoked 5 permits.

Blasting and Explosives

Pre-blast Surveyors (Renewed)	0
Blasting Complaints, Damage (Received, processed, closed or terminated)	26
Blasting Complaints, No Damage	19
Blasting Exams Given	152
Blasters (Initial)	26
Blasters (Renewed)	30
Blasters (Reciprocity)	1

Office of Oil and Gas

The Office of Oil and Gas (OOG) monitors all actions related to the exploration, drilling, storage, and production of oil and natural gas. OOG tracks more than 58,000 active oil and gas wells, manages abandoned well plugging and reclamation programs, and ensures surface/ ground water protection.

During FY2023, OOG accomplished:

- Reviewed, processed, and issued 763 well work permits; 303 of these were horizontal wells and 480 were plugging permits.
- Conducted 5,929 site inspections.
- Processed 106 complaints.
- Responded to 50 emergencies/spills.
- Issued 65 notices of violation.
- Was awarded a \$25,000,000 grant from the U.S. Department of Interior to plug abandoned wells, from which 78 wells were plugged.
- Plugged and/or reclaimed 26 abandoned wells/well sites using state funds.
- Expended approximately \$2,994,095 from the Reclamation and Abandoned Well Plugging Funds.
- Conducted 342 abandoned well inspections.
- Conducted 156 underground injection control (UIC) inspections.
- Reviewed and approved 59 UIC mechanical integrity tests. 100 percent of these were witnessed by OOG staff.

The Shallow Gas Well Review Board hears and rules on objections from coal owners, lessees and operators, regarding the location of proposed shallow gas well drilling sites. It generally administers the requirements of WV Code Chapter 22C, Article 8. It held no hearings in FY2023.

The Coalbed Methane Review Board hears and rules on actions associated with the drilling and production of coalbed methane wells. It generally administers the requirements of WV Code Chapter 22, Article 21. It held no hearings in FY2023.



Division of Water & Waste Management

The Division of Water and Waste Management (DWWM) strives to meet its mission through implementation of programs controlling surface and groundwater pollution caused by industrial and municipal discharges, as well as oversight of construction, operation, and closure of hazardous, solid waste, aboveground and underground storage tank sites.

In addition, the division works to protect, restore, and enhance West Virginia's watersheds through comprehensive watershed assessments, groundwater monitoring, wetlands preservation, inspection and enforcement of hazardous and solid waste disposal, and proper operation of storage tanks.

During FY2023, DWWM accomplished:

Environmental Enforcement

Dam Safety

- Conducted 288 safety inspections of dams. This included 227 high hazard dam assessments.
- Conducted 98 construction inspections.
- Reviewed 223 monitoring and emergency action plans.
- Investigated 11 citizen complaints.
- Oversaw the completion of a 72-ft tall, 1,000-ft long dam in Monongalia County for the Morgantown Utility Board.

Hazardous Waste

- Completed 437 inspections, related to hazardous waste facilities.
- Responded to 9 emergency response situations.
- Investigated 25 citizen complaints, related to hazardous materials.
- Underground Storage Tanks
- Conducted 71 closure inspections.
- Sixteen installation inspections.
- Completed 487 compliance monitoring inspections.
- Investigated 3 citizen complaints.

Water & Waste

- Conducted 2,879 inspections of solid waste and water pollution control facilities.
- Responded to 1,329 citizen complaints.
- Conducted 756 spill responses.

Aboveground Storage Tanks

- Conducted 1,283 compliance monitoring inspections.
- Investigated one citizen complaint.

Leaking Aboveground Storage Tanks

- Investigation and cleanup of 20 new leaking aboveground storage tank sites.
- Completed investigation and closed the active files on 22 leaking aboveground storage tanks.
- Leaking Underground Storage Tanks
- Investigation and cleanup of 49 new leaking underground storage tank sites.
- Completed investigation and closed the active files on 62 leaking underground storage tank sites.

Permitting

- Issued 23 major and 86 minor individual permits,
- Issued 58 permit modifications to industrial and municipal facilities.
- Issued 1,417 (784 general permit registrations and 633 stormwater), and 478 modifications (55 general registration and 423 stormwater) for a variety of facilities and activities.

Groundwater/UIC Program

- Issued 83 underground injection control permits, and 3 modifications.
- Transferred 2 permits, 14 rule authorizations and inspected 270 underground injection control facilities.
- Reviewed and approved 277 Groundwater Protection Plans and 515 Monitoring Well reports.
- Certified 204 Monitoring Well Drillers.
- Worked on 25 remediation projects.

Solid Waste

- Issued 26 permits (14 municipal solid waste landfill and 12 municipal solid waste landfill 5 major permit modifications, three Class F Industrial Solid Waste Permits and 13 Class D Construction/Demolition Landfill registrations).
- Issued 562 minor permit modifications.

Hazardous Waste Operating Permits

- Issued 3 Hazardous Waste Resource Conservation Recovery Act permit.

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Clean Water State Revolving Fund

- Disbursed more than \$39.6 million to communities for municipal sewer projects under construction; disbursed \$259,736 to the onsite system loan program; closed new loans on an additional 16 municipal construction projects, worth \$44 million; and have already issued 19 binding commitment letters and/ or loan agreements for additional projects, worth \$86.9 million.
- Approved 16 sets of plans and specifications; reviewed 109 Infrastructure and Jobs Development Council applications; and funded 26 new onsite systems through the Onsite Systems Loan Program.

Drinking Water Treatment Fund

- Disbursed more than \$29.3 million to communities for drinking water projects under construction; closed new loans on an additional 9 drinking water projects worth \$13.7 million and have already issued 14 binding commitment letters and/or loan agreements for additional projects, worth \$58.1 million.

Quality Assurance

- Received applications from 91 laboratories for certification.
- Performed onsite inspections at 96 laboratories.
- Recertified/certified 97 laboratories.

Water Quality Standards and Assessment Section Standards Unit

Water Quality Standards

- Attended EPA's Virtual Water Quality Standards Academy December 2022.
- Spoke at meetings, regarding WVDEP and the Water Quality Standards program.
- Filled Environmental Resources Associate position to reach agency goals to reduce vacancy rate.
- Completed conversion of Environmental Quality Board hard copy Water Quality Standards program records to electronic files in Application Extender.
- Attended regularly scheduled meetings with EPA R3 Biannually, EPA WV WQS monthly, and the PFAS Subcommittee.
- Continued to monitor filamentous algae and nutrients in the Greenbrier River.

- Continued to observe decreases in the amount of phosphorus and subsequent decrease in filamentous algae coverage for the second consecutive year as compared to previous years.
- Work with WVDEP's Watershed Assessment Branch to continue the process of identifying causative factors of filamentous algae growth in the Cacapon River.
- Continue to work with EPA on developing a framework for a Use Attainability Analysis to establish a limited aquatic life use for streams.
- Continue to work with EPA on developing a framework for variance requests.
- Continue to review and approve, where appropriate, site specific criteria requests with respect to copper and selenium.
- Continue to meet with the Trout Stream Workgroup to revise the trout waters definition.
- Continue to prepare for a triennial review in 2024.
- 401 Certification and State Waters Permits
- Reviewed 257 Nationwide 404 permits, of which 159 were for Division of Highways projects.
- Issued 12 Individual State 401 Water Quality Certifications.
- Issued 2 State Waters Permits.
- Reviewed and approved 12 Nationwide 27 Permit Stream Restoration Plans.
- Issued 16 compliance with Standard Condition 2 of the Nationwide Permit letters.
- Reviewed and approved 14 Nationwide 39 Permits for Commercial and Institutional Developments.
- Reviewed and approved 17 DOH Regional Permit projects.
- Reviewed and approved 18 Stream Management Plans from the WV Conservation Agency under their Regional General Permit.
- Reviewed and approved 8 Army Corps of Engineers' issued Letters of Permission.
- Coordinated with the U.S. Environmental Protection Agency on 11 Environmental Enforcement cases.
- Reviewed various Mitigation Bank documents, including prospectus, instrument, mitigation plans, monitoring plans, and modifications.



- Received and reviewed various documents on hydroelectric power projects, in accordance with FERC licensing requirements.
- Recertified the Regional General Permit for Abandoned Mine Lands.
- Presented on WOTUS definition revisions at WV Expo in March 2023.

Water Use

Conducted Large Quantity User Survey (2023): Any entity that withdraws more than 300,000 gallons in 30 days from state water resources is considered a Large Quantity User (LQU) under the Water Resources Protection and Management Act. These LQUs use the DEP Electronic Submission System to report their withdrawals annually to the Water Use Section. The Section has been collecting LQU information since 2006 and monitoring trends in water use. We share water withdrawal information with the State Legislature and research partners including universities and the U.S. Geological Survey.

LQUs withdraw over 614 billion gallons of water from 326 individual sites (based on calendar year 2022 data). Most LQU continue to withdraw from the surface (95%). Groundwater withdrawals remain relatively consistent, comprising approximately 5% of the total water use in West Virginia. Thermoelectric (coal) is the single largest user of surface water (contributing almost 66% of withdrawal), followed by the chemical and public water supply sectors. The public water supply is the single largest user of groundwater (contributing 42% of withdrawal), followed by the chemical and mining sectors. Groundwater use is concentrated in the alluvial aquifers along the Ohio River, southern coalfields, and karst aquifer systems of eastern WV. The 2022 estimate for water consumption is 45% of the total statewide water withdrawal.

Water Management Plans for Horizontal Well Work Permits: In Fiscal Year 2022, the Water Use Section supported West Virginia's oil and gas industry by issuing water management plans under the Horizontal Well Control Act (W.Va. Code §22-6A). TAGIS and the Water Use Section also maintain the Water Withdrawal Guidance Tool, developed in 2009, to guide withdrawals to surface waters with sufficient flow (<https://tagis.dep.wv.gov/wwts/>).

Continued Water Resources Research: The Water Use Section collaborates with state, federal, and nonprofit partners on research projects aligned with the Water Resources Protection and Management Act. Current projects include studies on abandoned coal mine aquifers, geophysical groundwater well logging, hydrogeologic assessments in Monroe County, and water security quantification. The section also supports local projects to address water stress and assist with critical planning area designations if needed. All data is maintained in the Water Resources Management Mapping Tool (<http://tagis.dep.wv.gov/WVWaterPlan/>).

Monitoring Unit

- Watershed Assessment/Long-term Monitoring Sites: collected: water quality, habitat, and biological information from 75 targeted sites (including 10 done in duplicate for QA); 71 samples from Longterm Monitoring Sites; 123 'General Water Quality' samples; 19 samples for filamentous algae surveys; and 10 samples associated with other Harmful Algae Blooms (HABS).
- Ambient Water Quality Monitoring Network: collected bi-monthly water quality information for more than 30 parameters from 26 sites on the State's major streams and rivers, six sites in the Monongahela basin were sampled monthly during low-flow season.
- Probabilistic: Monitoring for the 5 th 5-year cycle of Probabilistic Monitoring was ongoing on July 1, 2022-June 30, 2023.
- Water quality continuous data loggers were deployed at 46 sites on 38 streams.
- Fish community data was collected at 19 sites.
- Benthic Macroinvertebrate Data: 318 samples were collected from 240 streams were collected in the period July 1, 2022-June 30, 2023.
- Lakes: Monitored 27 sites at lakes and collected 60 samples, with 1,061 individual parameter results, including field parameters that were measured along depth profiles at each site visit.

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Assessment Unit

- Total Maximum Daily Load Development: Collected 2,241* water quality samples from 262 sites on 203 streams, providing 71,240 individual parameter results. These samples are primarily from streams within the Elk River, Potomac Direct Drains, North Branch of the Potomac River, Shenandoah River, and Little Kanawha River watersheds where pre-TMDL development monitoring was focused.
- The Draft TMDL for the Tug River Watershed was released to the public on December 12, 2022. A virtual public meeting was held January 11, 2023, to answer questions about the TMDL project. Draft TMDLs for Little Kanawha River Watershed were released to the public on June 15, 2023, and a virtual public meeting was held June 28, 2023. TMDL development is underway in the Cacapon River Watershed.
- Committed the remaining funding in the Brown-fields Revolving Fund and applied for supplemental Revolving Loan Fund grant funding. Supplemental funding was awarded in the amount of \$1,000,000. Loans are available to eligible local government entities, nonprofits, and private sector businesses.
- Launched a \$2,000,000 EPA Brownfields Assessment Grant with three public meetings, press announcements, and an Environment Matters video.
- Administered 24 environmental site assessments at brownfield properties throughout West Virginia to determine presence and levels of contamination and ultimately return the properties back to productive use.

RESTORING THE ENVIRONMENT

Division of Land Restoration

Office of Environmental Remediation

Through its various environmental cleanup programs, the Office of Environmental Remediation(OER) provides for clean, safe, and productive West Virginia communities by assessing and remediating environmental resources, and restoring contaminated properties to beneficial use.

Brownfields Assistance Program

The Brownfields Assistance Program empowers communities, developers, and stakeholders to assess, cleanup, and sustainably reuse brownfields. During FY23, the program accomplished:

- Provided free guidance and technical assistance to various stakeholders to assist with the assessment, cleanup, and redevelopment of brownfields. Specific services included reviewing and explaining environmental reports; providing technical and program guidance to assess and remediate sites; educating stakeholders and conducting community outreach, including participation in a grant-writing workshop; and identifying potential funding sources for assessment and remediation.

UECA-LUST Program

The Uniform Environmental Covenants Act–Leak-ing Underground Storage Tank (UECA-LUST) Program is an alternative remediation option for releases from underground storage tanks (USTs). Through the UECA-LUST Program, responsible parties may remediate LUST sites to risk-based standards utilizing engineering and institutional controls, such as covers, caps, and land use restrictions, in accordance with the Uniform Environmental Covenants Act. During FY23, the program accomplished:

Accepted four (4) LUST sites to participate in the program.

- Issued one No Further Action letter to a site which successfully completed risk-based remediation.
- Updated UECA-LUST guidance in the Voluntary Remediation Program Guidance Manual in order to streamline UECA-LUST sites through the program to achieve closure quickly and efficiently.

Voluntary Remediation Program

- The Voluntary Remediation Program encourages voluntary cleanup and redevelopment of abandoned or under-utilized contaminated properties by providing certain environmental liability protections under West Virginia law to parties completing remediation under WVDEP oversight.



RESTORING THE ENVIRONMENT

Voluntary Remediation Program

The Voluntary Remediation Program encourages voluntary cleanup and redevelopment of abandoned or under-utilized contaminated properties by providing certain environmental liability protections under West Virginia law to parties completing remediation under WVDEP oversight. During FY23, the program accomplished:

- Accepted six (6) new applications for voluntary remediation projects. These sites are located in Brooke, Marshall, Mercer, Monongalia, Ohio, and Wyoming counties.
- Issued nine (9) Certificates of Completion for 134.03 remediated acres of land ready for reuse. Cumulatively, 253 Certificates of Completion have been issued for 4,153.61 remediated acres of land. Sites receiving a Certificate of Completion include the Appalachian Tank Car Services site in Hinton, the McGinnis Investment Corporation site in Huntington, the Shell Valley Fork site in Valley Fork, the Bryarly Manor Orchard West Parcel in Martinsburg, the Norfolk Southern North Area Parcel in Princeton, the Dollar General site in Weirton, the Teletech site in Moundsville, the Superior Fibers site in Reedsville, and the Kidde site in Ranson.

Superfund Program

The WVDEP is a support regulatory agency for the U.S. Environmental Protection Agency at removal, pre-remedial, and remedial sites subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which requires meaningful state participation. As a support agency, the DEP Superfund Program represents state interests; ensures compliance with applicable state laws and regulations; provides oversight of data and data collection activities; and acts as a liaison between the EPA and the citizens of West Virginia, local officials, community representatives, property owners, industry, and nonprofit organizations. In addition, after a Long Term Response Action is completed at a site, the DEP Superfund Program assumes full responsibility for performing operations and maintenance (O&M) to maintain the effectiveness of the selected remedy.

During FY2023, the program accomplished:

- Supported EPA's Remedial Program at 10 Superfund National Priorities List (NPL) sites:
 - Allegany Ballistics (Rocket Center)
 - Big John Salvage (Fairmont)
 - Fike Chemical (Nitro)
 - Hanlin-Allied-Olin (Moundsville)
 - North 25th Street Glass & Zinc (Clarksburg)
 - Paden City TCE (Paden City)
 - Ravenswood PCE (Ravenswood)
 - Sharon Steel Corp (Fairmont)
 - Shaffer Equipment/Arbuckle Creek (Minden)
 - West Virginia Ordnance (Point Pleasant)
- Led operations and maintenance (O&M) at one Superfund National Priorities List (NPL) site (Vienna Tetrachloroethene in Vienna) and led continued monitoring efforts at one removal site (W&G Electroplating)
- Assisted EPA Response Program On-Scene Coordinators with removal assessments and actions at 10 sites:
 - Big John Salvage (Fairmont)
 - Carr China (Grafton)
 - Coyne Textile (Huntington)
 - Fairmont Brine (Fairmont)
 - Garry Harris Landfill (Poca)
 - Kanawha River Dioxin (Nitro)
 - North 25th Street (Clarksburg)
 - Paden City TCE (Paden City)
 - Pennsboro Glass (Pennsboro)
 - Reedsville Scattered Waste (Reedsville)
- Conducted and supported pre-remedial assessments for EPA's Site Assessment Program at 12 sites:
 - Elkem Metals (Alloy)
 - Fairmont Brine (Fairmont)
 - General Electric (Huntington)
 - Holder Chemical (Ona)
 - Houdaille Industries Inc. (Huntington)
 - J F & M Co. PCB (Huntington)
 - MacCorkle Avenue Chevron (South Charleston)
 - Owens Illinois Plant (South Charleston)
 - Poca Dioxin LF (Poca)
 - Standard Ultramarine (Huntington)
 - South Charleston LF (South Charleston)
 - South Charleston Ordnance (South Charleston)

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Federal Facilities Restoration Program

WVDEP serves as the lead regulatory agency at Department of Defense (DOD) restoration sites not on the Superfund NPL. The Federal Facilities Restoration Program oversees the investigation and cleanup of active, closing, and formerly used military installations at which hazardous substances and/or petroleum products were used, stored, or disposed of during past operations, as well as military munitions response sites known or suspected to contain unexploded ordnance, discarded military munitions, or munitions constituents.

In addition to investigating and remediating other contamination, DOD has launched an initiative to review and investigate sites for an emerging class of contaminants, per- and polyfluoroalkyl substances (PFAS). DOD's use of PFAS started in the 1970s, with the introduction of aqueous film forming foam (AFFF) for fuel firefighting purposes. AFFF contains PFAS and may contain perfluoro-octane sulfonate (PFOS) and, in some formulations, perfluorooctanoic acid (PFOA), two chemicals of the larger class of PFAS. Today, the primary concern is the impact that PFAS may have on drinking water on or near one of these sites. The WVDEP Federal Facilities Restoration Program assists with these reviews and investigations. During FY23, the program accomplished:

- Collaborated with the U.S. Air Force, U.S. Army, U.S. Army Corps of Engineers, U.S. Army National Guard, and U.S. Navy to actively assess and remediate 11 Formerly Used Defense Sites (FUDS), Installation Restoration (IR) sites, Military Munitions Response Program (MMRP) sites, and Non-DOD Owned, Non-Operational Defense Sites (NDNODS):
 - Allegany Ballistics Laboratory (Rocket Center)
 - Army Aviation Support Facility #1 (Williamstown)*
 - Army Aviation Support Facility #2 (Wheeling)*
 - Camp Dawson Army Training Site (Kingwood)*
 - Fixed Wing Army Aviation Training Site (Bridgeport)*
 - Parkersburg Range (Parkersburg)

- Shepherd Field Air National Guard Base (Martinsburg)*
- Sugar Grove Operations Area (Sugar Grove)*
- Yeager Field Air National Guard Base (Charleston)*
- WV Maneuver Area (Eastern WV)
- West Virginia Ordnance (Point Pleasant)

**Denotes PFAS investigation site.*

Long-Term Monitoring of Institutional Controls

Institutional controls are administrative and legal controls, such as restrictive covenants or city ordinances) that minimize the potential for human exposure or contamination and protect the integrity of the cleanup. WVDEP generally utilizes Land Use Covenants (LUCs)—also referred to as environmental covenants—as institutional controls on sites where removal and treatment of all contamination is not possible or practical. LUCs are legal instruments that impose activity and use limitations (AULs) where residual contamination is present on a property. WVDEP continuously monitors and regularly inspects properties with recorded LUCs to protect citizens from coming in contact with contamination at a site. During FY23, the program accomplished:

- Received and processed 1,409 notifications of excavation from WV811 to monitor sites with established environmental controls that contain AULs and/or engineering controls.



Office of Special Reclamation

DLR's Office of Special Reclamation (OSR) eliminates abandoned mine hazards due to post-1977 (SMCRA) mining operations. This may entail anything from minor to major land restoration and to perpetual water treatment. Its reclamation funds come from coal taxes, civil penalties, bond forfeitures, and investment yields. During FY23, the OSR accomplished:

- Provided quarterly progress reports to the Special Reclamation Fund Advisory Council.
- Monitored water quality on 3 permits for acid mine drainage determination (AMD) and design purposes.
- Performed 3,017 land and water inspections.
- Performed 909 construction inspections.
- Issued 2 water reclamation purchase orders and 2 land reclamation purchase orders, totaling approximately \$2.3 million, and 1 emergency purchase order, totaling approximately \$700,000.
- Completed 2 retrofit projects, allowing OSR to meet more stringent NPDES limits. 3 permits were added to the retrofit reclamation process.
- Completed land reclamation on 7 permits, totaling approximately 212 acres.
- Coordinated with outside consulting firms on one design contract.
- Continued the cost-share partnership with Southwestern Energy (SWN). As part of the Muddy Creek Watershed Restoration Project, SWN continues to contribute \$300,000 toward operation and maintenance costs for water treatment, as well as \$765,000 toward the operation and maintenance cost for the Martinka Complex treatment facility.
- OSR has 5 licensed drone pilots. Current drones used are (2024) DJI Mavic 3 RTK with integrated HD cameras. OSR uses drones for aerial mapping, photography, and detecting ground water discharges, mine seeps, subsurface cracks, and coal seam fires. Additionally, a hydro drone (boat), which uses sonar, is used in determining pond depths for reclamation purposes.
- Designed and completed construction with WRI on a full-scale REE extraction project near Mount Storm.

Abandoned Mine Lands

DLR's Office of Abandoned Mine Lands and Reclamation (AML) mends damage that occurred from mining operations prior to Aug. 3, 1977. Abandoned mines impose social and economic costs to residents and impair environmental quality. AML restores land and improves water quality at abandoned or forfeited sites using funding from federal coal taxes. During FY23, AML accomplished:

Planning

- AMD Water Treatment: 201,589 gallons-per-minute (8 projects)
- Clogged Streams: 0.1
- Dangerous Impoundments/Portals: 33
- Dangerous Piles and Embankments: 8 acres
- Subsidence: 5 acres
- Dangerous Slides: 0.25 acres
- Equipment/Facilities: 4
- Industrial/Residential Waste: 1 acre
- Hazardous Water Body: 1 acre
- Sent 8 Environmental Assessments to OSMRE for Authorization to Proceed with projects.
- Submitted 157 Problem Areas (PADs) into the National Enhanced Abandoned Mine Lands Inventory System (eAMLIS).

Design

- Completed designs for 6 In-House projects and 5 Contract projects, for a total of 11 projects.

Waterlines

- Completed one project, serving 89 customers, and awarded one project, serving 5 customers.

Realty

- Completed Exploratory Right of Entry on 14 regular grant projects and 2 emergency projects.
- Completed Construction Right of Entry on 18 regular grant projects, 19 maintenance projects, and 30 emergency projects.
- Completed Property Appraisals on 6 Property Acquisitions

Emergencies

- North Investigations: 192 / Emergencies: 18
- South Investigations: 145 / Emergencies: 12

DEPARTMENT OF ENVIRONMENTAL PROTECTION



SUPPORTING THE ENVIRONMENT

Homeland Security Emergency Response

The Office of Homeland Security and Emergency Response (HSER) plays a pivotal role within the WVDEP, handling high-stakes operations that extend far beyond the agency's typical remit. At the core of HSER's work is the critical responsibility of responding to chemical and hazardous materials spills—a duty essential to protecting both public safety and the environment. HSER serves as a vital liaison between the WVDEP and other state and federal agencies during emergency situations, ensuring a coordinated and effective response to incidents affecting West Virginia. Additionally, HSER represents the state on multiple national and regional homeland security and emergency management study and response groups, contributing to broader security efforts and best practices.

In FY2023, HSER unit reviewed and vetted 3,192 spill line notifications, ensuring rapid assessment and prioritization of potential environmental threats. Their swift and coordinated response resulted in 99 emergency actions, showcasing HSER's capacity to mitigate risks and minimize harm in diverse and challenging situations.

HSER also managed extensive hazardous waste initiatives, overseeing the removal and proper disposal of 36,052 pounds of hazardous materials. The unit supported community safety through the operation of 158 household hazardous waste collection sites, providing citizens with essential services to responsibly dispose of dangerous materials. Additionally, HSER conducted 87 investigations, including coordination with law enforcement on four meth lab incidents, underscoring its dedication to addressing complex and high-stakes environmental challenges. These accomplishments highlight HSER's vital contributions to environmental protection and public health across the state.

Office of the Environmental Advocate

The Office of Environmental Advocate assists the public in obtaining agency information and technical data, encourages citizen participation during public comment periods, and works closely with DEP offices to develop informational workshops and public forums to address state environmental concerns.

Youth Environmental Program

The OEA's Youth Environmental Program (YEP) provides an opportunity for the youth in West Virginia to participate in environmental projects within their communities. It is designed to unite existing youth groups such as 4-H clubs, scouts, FFA chapters, elementary, middle and high schools, and others toward the common goal of protecting our environment. The program offers an annual Junior Conservation Camp, Youth Environmental Conference and Youth Environmental Day and awards \$15,000 in cash and other prizes – including a college scholarship. For FY23, YEP accomplished:

- Had 1,094 clubs enrolled in the program, represented by 140,889 members.
- Had volunteers log 39,866 volunteer hours.
- Contributed \$1,193,986.70 total dollar amount through volunteering (based from the Independent Sector's estimated value of a volunteer hour).

Rehabilitation Environmental Action Plan (REAP)

The OEA's Rehabilitation Environmental Action Plan works to make West Virginia the cleanest state in the nation. Pollution Prevention and Open Dump, Make-It-Shine, Adopt-A-Highway/Adopt-A-Spot, Clean Streams Initiative, Statewide Recycling and Operation Wildflower are the state's cleanup and beautification programs. They are all housed within WVDEP, providing citizens with a control location to learn about and participate in volunteer cleanup initiatives.



SUPPORTING OFFICES

For FY23, REAP accomplished:

	PPOD	WVMIS	Adopt-A-Stream	Adopt-A-Highway Adopt-A-Spot	Recycling/Litter Control Grants	REAP Totals
Volunteer Labor Value	\$88,277	\$261,301	\$8,141	\$1,092,743	\$85,319	\$1,535,781
Volunteers Participating	730	3,657	60	5,682	419	10,548
Dumps Eradicated	534	87			382	1,003
Acres Reclaimed	530	280				810
Miles of Roadway Cleaned	269	267		1,745	586	2,867
Miles of Streams Cleaned	112	61	12			185
Active Groups Reported		135	3	462		600
Tons of Litter/Waste	4,123.34	215.57	5.74	108.58	1,231.23	5,684.46

Business Operations Office

The Business Operations Office (BOO) provides financial, procurement, and property management services to all of WVDEP's programs, divisions, and offices. During FY23, BOO accomplished:

- Implemented JJ Keller Safety Management Suite.
- CPRB Space Consolidation and Integration with building policies.
- Enterprise and Stamps.com accounts rolled out to field offices.
- Overhauled Floor Marshal Program.
- Fayetteville Facility - EE Reconfigure.
- A/V Upgrades for large conference rooms.
- Conducted training sessions on various topics for agency personnel.
- Transition of agency cell phones from AT&T to FirstNet
- Established a new vendor contract for uniformed employees.
- Reassignment of contracts from DHHR for the Drinking Water Treatment Revolving Fund.
- Development and award of RFP for DWWM/DHHR for the Lead Service Line Inventory System
- DEP's Exempt Construction/Reclamation Projects
- Advertised 59 Solicitations and awarded 55 Contracts
- Completed and submitted the FY23 Closing Book Forms information on time.
- The State audit resulted in no findings for DEP.
- During FY2024, the Clean Water State Revolving Fund single audit was completed for FY2023 and resulted in no findings.
- DEP reported 150 new sub grants to the Governor's Office.
- Number of sub grant payments reviewed and submitted for payment processing: 676 payments processed, totaling \$25,500,595.
- Due to new legislation that was effective July 1, 2022, to meet the "Oversight and Reporting of State Grants" requiring all published legal advertisements be published on the State Auditor's Legal Notice database, the number of public notices posted in wvOASIS by DEP was 500.

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Human Resources

Human Resources (HR) manages all employment matters for the WVDEP. Two units within the division manage pre-hire matters (recruiting, interviewing, assessment and offers of employment) and post-hire (transaction processing, time and attendance, benefits, disciplinary matters, training and succession planning).

In FY2023, HR demonstrated exceptional commitment to workforce development and employee management. The team effectively managed 169 staffing requests and facilitated 170 recommendations, resulting in the hiring of 147 new employees. This proactive recruitment effort ensured that the agency maintained a strong workforce while addressing the 121.9 vacant positions out of 877.98 budgeted roles. Additionally, HR oversaw the offboarding of 38 employees and guided 15 retirees through their transitions, highlighting the division's comprehensive support for all stages of the employee lifecycle.

The HR division also prioritized workforce flexibility and optimization, with 61 employees reallocated to meet evolving organizational needs and 228 staff members participating in telework programs. Demonstrating a commitment to outreach and talent acquisition, the team attended 23 recruitment events to strengthen the DEP's candidate pipeline. Moreover, the division addressed seven grievances, ensuring workplace issues were handled promptly and fairly. Through these efforts, HR reinforced its role as a cornerstone of WVDEP's operational success, fostering a resilient and adaptive workforce.

Information Technology

The Information Technology Support Office (IRIS) develops and implements applications needed by the divisions and offices of the WVDEP. Our applications are designed to support the WVDEP vision and mission.

In FY2023, the WVDEP's IT staff made impactful strides in cost savings and operational efficiency through innovative technological initiatives. The TAGIS drone program stood out as a prime example, delivering substantial savings by eliminating the need for traditional aerial photography. This program saved one Division of Land Restoration project an impressive \$215,000, demonstrating the value of leveraging advanced technology to reduce expenses while maintaining high-quality data collection and analysis.

Beyond this, the IT team implemented critical infrastructure changes that cut over \$200,000 in recurring costs, showcasing their commitment to optimizing resources.

Additionally, the Automated Data Systems (ADS) team revolutionized internal processes by introducing automation solutions that saved the agency 141 hours in 2023. These improvements are set to scale further in 2024, with projections indicating savings of over 1,000 hours, significantly enhancing productivity and enabling DEP staff to focus on core environmental initiatives. Together, these accomplishments highlight the IT division's vital role in advancing the agency's operational and financial efficiency.



SUPPORTING OFFICES

Public Information Office

The Public Information Office (PIO) is instrumental in sharing the WVDEP’s work and mission to uphold the state’s environmental laws while balancing economic interests in agriculture, manufacturing, tourism, and energy production. Through proactive public outreach, media relations, and community engagement, the PIO serves as the spokesperson for the agency and promotes transparency and accessibility, ensuring that West Virginians understand and can interact with the work of WVDEP.

In FY2023, the WVDEP’s Public Information Office (PIO) excelled in fostering transparency, engagement, and public awareness. The office managed an impressive volume of public inquiries and communications, including handling nearly 1,000 FOIA requests and issuing 972 public notices. PIO’s responsiveness extended to over 300 media inquiries and the coordination of 21 public hearings, ensuring that stakeholders remained informed and had opportunities for meaningful participation in environmental decision-making processes. Additionally, 23 press releases disseminated critical updates on WVDEP initiatives and achievements.

PIO’s social media and digital outreach achieved remarkable growth and engagement. On YouTube, the team produced 116 new videos, generating over 23 hours of content, 66,978 views, and 678,600 impressions, with viewers spending 3,300 hours watching this material. The channel gained 257 new subscribers, further expanding its reach. On Facebook, PIO shared 531 posts, adding 1,253 new followers—a growth of 86.5%—and reached 696,000 accounts, reflecting a 234.9% increase. Twitter saw similar success, with 189 tweets reaching 67,000 accounts and attracting 148 new followers. These achievements underscore PIO’s pivotal role in enhancing WVDEP’s visibility, accessibility, and connection with the public.

Office of Legal Services

The Office of Legal Services (OLS) represents the agency in permitting and enforcement actions before administrative boards, circuit courts and appellate courts, and provides counsel to WVDEP offices on regulatory and legislative matters. OLS works with all divisions and offices in the department to assist with the implementation of regulatory programs.

In FY2023, the WVDEP’s Office of Legal Services achieved significant milestones, demonstrating its dedication to upholding state regulations and protecting West Virginia’s environmental and legal interests. A key accomplishment was completing the final Section 401 certification for the Mountain Valley Pipeline, resolving all state regulatory issues associated with the project.

This critical step underscored the office’s ability to navigate complex regulatory frameworks while supporting infrastructure development. Additionally, the team actively participated in a legal challenge to the Federal Implementation Plan for 2015 ozone standards, arguing against the EPA’s unlawful disapproval of West Virginia’s ozone compliance measures, which adhered to both federal and state rules.

The office effectively managed a robust caseload, resolving 36 matters through mediation and settlement negotiations and 12 through final dispositions. Active cases included 22 settlement negotiations, 11 pretrial litigations, and three joint federal actions in collaboration with the EPA and DOJ. The team also represented the agency in 12 hearings across Board, Circuit Court, and show cause proceedings. These efforts highlight the Office of Legal Services’ pivotal role in addressing legal challenges, ensuring regulatory compliance, and safeguarding the state’s environmental and economic interests.



Boards & Commissions

Air Quality Board

The Air Quality Board is a quasi-judicial body responsible for hearing appeals regarding the issuance or denial of permits, permit conditions, or enforcement decisions rendered by the Division of Air Quality. Citizens and the regulated community file appeals with the board.

Board Members:

- J. Michael Koon, chairman
- R. Thomas Hansen, Ph.D., vice chairman
- Leonard Knee
- Robert C. Orndorff, Jr.
- Connie L. Stewart
- Grant Bishop, Department of Agriculture

In FY2023, the AQB accomplished:

- Maintained filings of air quality appeals regarding the air quality permitting and enforcement program.
- Downloaded notices of appeal, certified records and orders to the board's website.

Environmental Quality Board

The Environmental Quality Board is a quasi-judicial body responsible for hearing appeals regarding the issuance or denial of permits, permit conditions, or enforcement decisions rendered by the Division of Water and Waste Management. Citizens and the regulated community file appeals with the board.

Board Members:

- Edward M. Snyder, Ph.D., chairman
- Charles C. Somerville, Ph.D., vice chairman
- B. Mitchel Blake, Jr., Ph.D.
- Stephen G. Capelli, Sr., P.E.
- Marybeth Winters, P.E.

In FY2023, the EQB accomplished:

- Received and docketed 13 new appeals and entered 12 orders.
- Held 8 prehearing conferences, 3 evidentiary hearings, 3 oral arguments, 3 stay hearings, 1 meeting to deliberate and 1 administrative meeting.
- Downloaded notices of appeal, certified records and orders to the board's website.

Oil & Gas Conservation Commission

The Oil and Gas Conservation Commission (OGCC) administers the provisions of W. Va. Code § 22C- 9-1 et seq. and its corresponding legislative rule. Specifically, the OGCC has authority over deep well spacing and the establishment of drilling units and the pooling of interests for deep wells and horizontal "shallow" wells, conducting hearings associated with these matters. Under this statute the OGCC also has regulatory authority related to secondary recovery of oil from both shallow and deep wells. The OGCC administers the provisions of W. Va. Code § 37B-1-1et seq. relating to mineral development by co-tenants for all wells at all depths and the provisions of W. Va. Code § 22-11B-1 et seq. Concerning underground carbon dioxide sequestration storage facilities at all depths.

Mission Points of the OGCC:

- Foster, encourage, and promote exploration for and development, production, utilization, and conservation of oil and gas resources;
- Prohibit waste of oil and gas resources and unnecessary surface loss of oil and gas and their constituents;
- Encourage the maximum recovery of oil and gas; and
- Safeguard, protect, and enforce the correlative rights of operators and royalty owners in a pool of oil or gas to the end that each such operator and royalty owner may obtain his or her equitable share of production from such pool of oil and gas.

Board Members:

- Edward M. Snyder, Ph.D., chairman
- Charles C. Somerville, Ph.D., vice chairman
- B. Mitchel Blake, Jr., Ph.D.
- Stephen G. Capelli, Sr., P.E.
- Marybeth Winters, P.E.

In FY2023, the OGCC accomplished:

- Approved 38 deep well approvals.
- Held 21 administrative hearings.
- Collected \$222,388.41 in leased acreage taxes.



Surface Mine Board

The Surface Mine Board conducts hearings on appeals presented to the board by any party that believes it is aggrieved by a decision of the DEP's Cabinet Secretary. Decisions appealed include permits issued, permit applications denied, notices of violations, and failure to issue notices of violation for alleged violations of law or regulations. Citizens and the regulated community file appeals with the board.

Board Members:

- Mark Schuerger, chairman, coal industry
- Richard Flanigan, vice chairman, forestry
- Stephen Butler, agriculture
- Henry Rauch, Ph.D., water pollution control
- James Smith, engineering
- Charles K. Meadows II, quarry operations

In FY2023, the SMB accomplished:

- Received and docketed 15 new appeals and entered 9 orders.
- Held 4 evidentiary hearings and 1 administrative meeting.
- Downloaded final orders to the board's website.



west virginia department of environmental protection