



U.S. DEPARTMENT
of ENERGY

Office of Legacy Management



Calendar Year

20
25

SUMMARY OF Annual Site Environmental Reports

Ver. 09.2026

Public and Stakeholder Feedback

For more information on Office of Legacy Management activities or to provide comments and feedback on the content of this report, contact:



U.S. DEPARTMENT
of **ENERGY**

Office of Legacy Management

2597 Legacy Way
Grand Junction, CO 81503

Email: public.affairs@lm.doe.gov
Website: www.energy.gov/LM
Phone: (970) 248-6070

Contents

Abbreviations	iii
1.0 Introduction	1
1.1 About the Annual Site Environmental Report	1
1.2 Public and Stakeholder Outreach and Feedback	1
1.3 About the Office of Legacy Management	1
1.4 Regulatory and Programmatic Frameworks	3
1.4.1 Comprehensive Environmental Response, Compensation, and Liability Act/Resource Conservation and Recovery Act Sites	3
1.4.2 Decontamination and Decommissioning Sites	4
1.4.3 Formerly Utilized Sites Remedial Action Program Sites	4
1.4.4 Manhattan Engineer District/U.S. Atomic Energy Commission Legacy Sites	4
1.4.5 Nuclear Waste Policy Act Section 151 Site	4
1.4.6 Plowshare/Vela Uniform/Weapons Related Program	4
1.4.7 State Water Quality Standards Site	5
1.4.8 Uranium Mill Tailings Radiation Control Act Sites	5
1.5 Additional LM Programs and Facilities	5
1.6 Oversight	7
1.7 LM Site Categories	7
1.8 Summary of Facility- and Program-Specific Activities	8
2.0 Environmental Compliance	9
2.1 Compliance Status Overview	10
2.2 Environmental Restoration and Waste Management	10
2.2.1 CERCLA	10
2.2.2 Emergency Planning and Community Right-to-Know Act	10
2.2.3 RCRA	11
2.2.4 Federal Facility Compliance Act	12
2.2.5 National Environmental Policy Act	12
2.2.6 Toxic Substances Control Act	12
2.2.7 Federal Insecticide, Fungicide, and Rodenticide Act	12
2.3 Radioactive Protection	13
2.3.1 AEA of 1954	13
2.3.2 DOE Order 458.1, Radiation Protection of the Public and the Environment	13
2.3.3 DOE Order 435.1, Radioactive Waste Management	13
2.4 Air Quality and Protection Compliance Status	14
2.4.1 Clean Air Act	14
2.4.2 National Emission Standards for Hazardous Air Pollutants	14
2.4.3 New Source Performance Standards	14
2.4.4 Hydrofluorocarbon Phasedown	14

2.5 Water Quality and Protection Compliance Status	15
2.5.1 Clean Water Act	15
2.5.2 Safe Drinking Water Act	16
2.5.3 CWA Oil Pollution Prevention	16
2.6 Energy Independence and Security Act (EISA) Section 438	17
2.7 PFAS and Other Emerging Contaminants	17
2.7.1 PFAS	17
2.7.2 Other Emerging Contaminants	17
2.8 Natural and Cultural Resources	18
2.8.1 Endangered Species Act	18
2.8.2 Navajo Endangered Species at LM Sites	18
2.8.3 Invasive Species Management	18
2.8.4 National Historic Preservation Act	19
2.8.5 Migratory Bird Treaty Act	20
2.8.6 Floodplain and Wetland Management	20
2.9 Environmental Violations and Compliance Issues Summary	21
3.0 Environmental Management System (EMS)	23
3.1 Accomplishments, Awards, and Recognition	23
4.0 Environmental Non-Radiological Protection Program	25
4.1 Environmental Non-Radiological Monitoring Program	25
4.2 Unplanned Non-Radiological Reportable Releases	25
4.3 Groundwater Protection Program	27
4.4 Natural Resource Conservation Programs and Projects	27
4.4.1 Summary of Fire Protection Management and Planning	28
4.5 Efficient Operations	29
4.5.1 Energy and Water Efficiency Programs	29
4.5.2 Strategic Acquisition	30
4.5.3 Site Resilience	30
4.5.4 Sustainable Resilient Remediation	30
5.0 Environmental Radiation Protection Program	31
5.1 Environmental Radiological Monitoring	31
5.2 Radiological Discharges and Doses	31
5.3 Clearance of Property Containing Residual Radioactivity	32
5.4 Unplanned Radiological Releases	32
6.0 Quality Assurance and Oversight	33
6.1 Oversight	33
6.1.1 Program and Contractor Oversight	33
6.1.2 Sampling and Data Oversight	33
References	35
Appendix A	40

Figures

Figure 1. Map of LM Sites as of September 2025 2

Figure 2. Percentage of LM Sites by Regulatory or Programmatic Framework 3

Figure 3. Environmental Statutory Requirements Timeline 9

Tables

Table 1. LM Site Count by Regulatory or Programmatic Framework 3

Table 2. Status of EPCRA Reporting 11

Table 3. LM Facilities Monitored in EPA ECHO Database 21

Table 4. Summary of Unplanned Non-Radiological Releases 25

Table 5. Environmental Compliance and Sustainability Requirement 29

Table 6. Contracted Analytical Laboratories 34

Appendix

Table A-1. Category 1 Sites with Links to the LM Public Website 41

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations 43

Table A-3. Category 3 Sites with Links to the LM Public Website and Data Locations 49

Table A-4. Calendar Year 2025 Groundwater Monitoring Program and AOC Exceedance Summary 51

Table A-5. Data for AOC Exceedances at UMTRCA Processing Sites and D&D Sites 55

Abbreviations

AEA	Atomic Energy Act
AEC	U.S. Atomic Energy Commission
AIM	American Innovation and Manufacturing
AOC	analyte of concern
ASER	Annual Site Environmental Report
AS&T	Applied Studies and Technology
AWSS	alternate water supply system
BLM	Bureau of Land Management
CAA	Clean Air Act
CAS	Contractor Assurance System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CWA	Clean Water Act
CY	calendar year
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
DRUM	Defense-Related Uranium Mines
ECHO	Enforcement and Compliance History Online
EHS	extremely hazardous substance
EISA	Energy Independence and Security Act
EMS	Environmental Management System
EnMS	Energy Management System
EO	Executive Order
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
FFCA	Federal Facility Compliance Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FUSRAP	Formerly Utilized Sites Remedial Action Program
FY	fiscal year
FYR	Five-Year Review
GEMS	Geospatial Environmental Mapping System

Abbreviations

GJDS	Grand Junction, Colorado, Disposal Site
HFC	hydrofluorocarbon
HSWA	Hazardous and Solid Waste Amendments
IPM	integrated pest management
ISO	International Organization for Standardization
LM	Office of Legacy Management
LMBC	LM Business Center
LMFSC	LM Field Support Center
LMSP	Legacy Management Support Partner
LTS&M	long-term surveillance and maintenance
LTS&M Plan	Long-Term Surveillance and Maintenance Plan
MBTA	Migratory Bird Treaty Act
MED	Manhattan Engineer District
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRC	U.S. Nuclear Regulatory Commission
NWPA	Nuclear Waste Policy Act
PFAS	per- and polyfluoroalkyl substances
PFOA	perfluorooctanoic acid
PFOS	perfluorooctane sulfonate
POC	Point of Compliance
PVW	Plowshare/Vela Uniform/Weapons Related
QA	quality assurance
QAPP	Quality Assurance Project Plan
QMS	Quality Management System
RCRA	Resource Conservation and Recovery Act
RPP	Radiation Protection Program
SAP	Sampling and Analysis Plan
SDWA	Safe Drinking Water Act

Abbreviations

STEM	science, technology, engineering, and mathematics
TRI	Toxics Release Inventory
TSCA	Toxic Substances Control Act
ULP	Uranium Leasing Program
UMTRCA	Uranium Mill Tailings Radiation Control Act
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
V&V	verification and validation
WOTUS	waters of the United States
WTU	water treatment unit

1.0 Introduction

1.1 About the Annual Site Environmental Report

Each U.S. Department of Energy (DOE) site is required to prepare an Annual Site Environmental Report (ASER) under DOE Order 231.1B Chg 1 (Admin Chg), [Environment, Safety, and Health Reporting](#). The ASER documents the site's environmental conditions, fulfills the reporting requirements in the Order, and is submitted every year to the Office of Health Programs and Environmental Radiation Protection, which is part of the Office of Environment, Health, Safety, and Security.

Office of Legacy Management (LM) sites have unique characteristics and are managed under various regulatory frameworks. DOE's *Guidance for the Preparation of the 2025 Department of Energy Annual Site Environmental Reports* acknowledges this and allows LM to provide a scaled-down summary of all LM sites' programmatic and site-specific environmental activities for each calendar year.

When practical, this report provides website links where documents are publicly accessible. The links may go to the most recent document versions rather than those in effect for the ASER reporting period.

1.2 Public and Stakeholder Outreach and Feedback

This ASER describes the environmental conditions and regulatory compliance status at LM sites and LM's environmental work for stakeholders and the public. LM welcomes feedback and is committed to continuous improvement of our environmental work, including proactive community, public, and stakeholder engagement and outreach.

Contact public.affairs@lm.doe.gov for more information on LM activities or to comment and give feedback on this report.

1.3 About the Office of Legacy Management

LM was established in 2003 to manage DOE's post-closure responsibilities at sites under its care and ensure the future protection of human health and the environment at those sites through long-term surveillance and maintenance (LTS&M). The histories of the legacy sites vary, as do the regulations they are managed under. These sites have typically undergone cleanup by other federal and private organizations, such as the U.S. Army Corps of Engineers (USACE), U.S. Nuclear Regulatory Commission (NRC) licensees, or the DOE Office of Environmental Management. They are then transferred to LM for long-term stewardship.

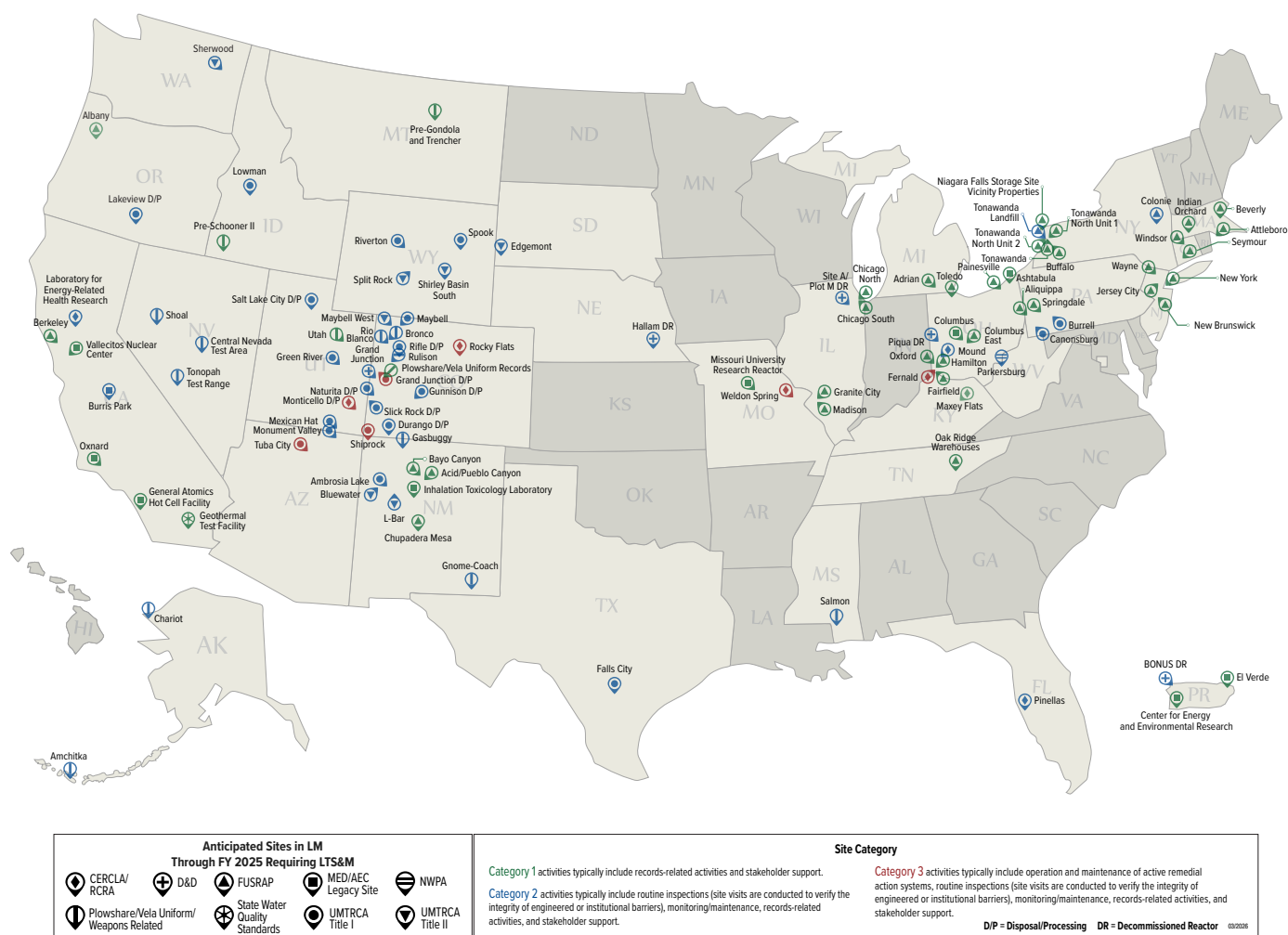
The goal of LM's LTS&M program is to protect human health and the environment from any residual contamination that may remain at its sites. This involves a range of activities, including:

- **Maintaining physical and engineering controls:** This includes ensuring the integrity of engineered controls, disposal cells, and other structures designed to contain or prevent exposure to contamination.
- **Environmental monitoring:** LM monitors groundwater and surface water extensively to detect and track the movement of contaminants such as uranium and other radionuclides.
- **Groundwater treatment:** At some former uranium mill processing sites, LM is involved in maintaining and optimizing groundwater treatment remedies and systems.
- **Inspections and evaluations:** LM regularly inspects and evaluates site features to identify any potential issues that may need to be addressed.
- **Institutional controls:** LM implements measures to restrict access to areas with residual contamination.
- **Information management:** LM maintains records and data related to its sites, providing crucial historical context and technical information for ongoing management.
- **Community engagement:** LM engages with local communities to provide information on site conditions, monitoring results, and future plans.

LTS&M is a critical aspect of DOE's post-closure responsibilities, ensuring that the cleanup efforts remain effective over time. Each site has a publicly available Long-Term Surveillance and Maintenance Plan (LTS&M Plan) or a similar document, which includes a site description, history, the nature and extent of contamination, closeout conditions, present and future monitoring and surveillance programs, and institutional controls.

In 2025, LM had long-term stewardship responsibilities for 103 sites. Figure 1 shows a map of LM sites by regulatory or programmatic framework.

Site counts are updated at least annually in the LM *Site Management Guide*. Site counts and site categories in this report align with the September 2025 version of the guide, with updated information when available. The most recent guide can be found at <https://www.energy.gov/lm/downloads/site-management-guide>.



Abbreviations: AEC = U.S. Atomic Energy Commission; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; D&D = Decontamination and Decommissioning; FUSRAP = Formerly Utilized Sites Remedial Action Program; MED = Manhattan Engineer District; NPPA = Nuclear Waste Policy Act; RCRA = Resource Conservation and Recovery Act; UMTRCA = Uranium Mill Tailings Radiation Control Act

Figure 1. Map of LM sites as of September 2025.

As remediation of more sites is completed by the responsible parties, the sites will be transferred to LM for long-term care. There is more information on transferring sites in the *LM Site Management Guide*. The regulatory or programmatic framework and the number of sites LM managed under each framework in 2025 are laid out in Table 1, and this information can also be found on the [Legacy Site Programmatic Framework](#) page of the LM public website. Figure 2 shows the percentage of LM sites by regulatory or programmatic framework.

Table 1. LM Site Count by Regulatory or Programmatic Framework

LM Site Count by Regulatory or Programmatic Framework

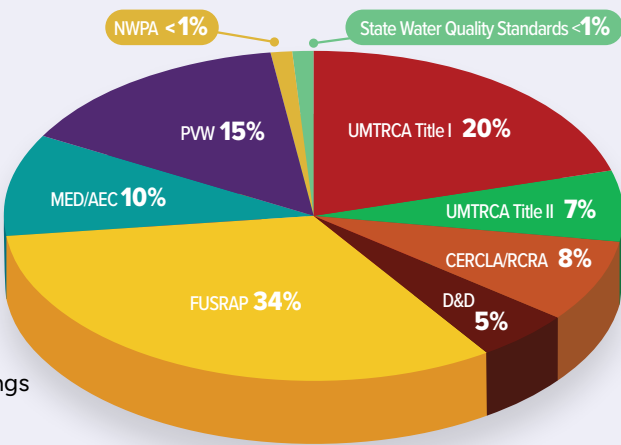
REGULATORY OR PROGRAMMATIC FRAMEWORK		Site Count Through September 2025
Comprehensive Environmental Response, Compensation, and Liability Act/Resource Conservation and Recovery Act (CERCLA/RCRA)		8
Decontamination and Decommissioning (D&D)		5
Formerly Utilized Sites Remedial Action Program (FUSRAP)		35
Manhattan Engineer District/U.S. Atomic Energy Commission (MED/AEC)		10
Nuclear Waste Policy Act (NWPA)		1
Plowshare/Vela Uniform/Weapons Related (PVW) Program		15
State Water Quality Standards		1
Uranium Mill Tailings Radiation Control Act (UMTRCA) Title I		21
UMTRCA Title II		7
Total		103

Percentage of LM Sites by Regulatory or Programmatic Framework

Abbreviations:

AEC = U.S. Atomic Energy Commission; **CERCLA** = Comprehensive Environmental Response, Compensation, and Liability Act; **D&D** = Decontamination and Decommissioning; **FUSRAP** = Formerly Utilized Sites Remedial Action Program; **MED** = Manhattan Engineer District; **NWPA** = Nuclear Waste Policy Act; **PVW** = Plowshare/Vela Uniform/Weapons Related; **RCRA** = Resource Conservation and Recovery Act; **UMTRCA** = Uranium Mill Tailings Radiation Control Act

Figure 2.



1.4 Regulatory and Programmatic Frameworks

1.4.1 | Comprehensive Environmental Response, Compensation, and Liability Act/Resource Conservation and Recovery Act Sites

LM’s Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) site portfolio includes sites from California to Florida with a diverse history of operations, regulatory requirements, and activities. Federal milling, processing, research, or nuclear weapons manufacturing work at these sites led to radiological contamination, chemical contamination, or both.

LM managed eight sites in 2025 where remediation was conducted under CERCLA, RCRA, or both. Six of the sites are on the U.S. Environmental Protection Agency’s (EPA) National Priorities List. A ninth site, the Maxey Flats, Kentucky, Disposal Site, is owned and operated by the state of Kentucky, while LM manages federal records and responds to inquiries.

1.4.2 | Decontamination and Decommissioning Sites

DOE established the Decontamination and Decommissioning (D&D) program to remediate surplus DOE facilities. Five D&D sites have been transferred to LM. Four of these sites are former demonstration nuclear power plants, and the fifth was a uranium ore pilot processing plant and shipping center.

1.4.3 | Formerly Utilized Sites Remedial Action Program Sites

The U.S. Atomic Energy Commission (AEC), a predecessor to DOE, established the Formerly Utilized Sites Remedial Action Program (FUSRAP) to clean up sites where radioactive contamination was left by Manhattan Engineer District (MED) projects and early AEC work. In the 1970s and 1980s, DOE assessed more than 600 facilities and determined that 46 were eligible for remediation under FUSRAP. Other sites were later determined to be eligible as well, and Congress designated several otherwise ineligible sites for remediation. DOE remediated 25 of these sites between 1974 and 1997.

In 1997, Congress directed USACE to take over remediation of the remaining FUSRAP sites. Several sites needed further remediation by USACE in subsequent years. USACE's remediation is subject to the framework of CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan.

LM decides whether a site might be eligible for FUSRAP, refers eligible sites to USACE for further investigation and possible entry into the program, and manages long-term stewardship of cleaned-up sites. USACE performs operations and maintenance at each site for two years after remediation is complete and then transfers the long-term stewardship responsibilities of the site to LM. Most FUSRAP sites were remediated for unrestricted use, so LM's stewardship is limited to managing site records and responding to stakeholder inquiries. Long-term stewardship at some completed FUSRAP sites may include surveillance and maintenance activities, long-term periodic reviews, Five-Year Reviews, or desktop assessments.

LM managed 35 completed FUSRAP sites in 2025; the number will increase as USACE completes the cleanup of the remaining 20 active FUSRAP sites.

1.4.4 | Manhattan Engineer District/U.S. Atomic Energy Commission Legacy Sites

LM maintains 10 sites under the MED/AEC Legacy Sites program. Each of the sites played an important role in weapons production or nuclear research for the U.S. during World War II and the Cold War. The MED was formed in 1942 as a USACE district to support work related to building the first atomic bombs. The AEC was established after World War II, in 1946, to provide civilian control of nuclear science and technology. AEC was dissolved in 1975, with some of its mission eventually transferring to DOE.

MED/AEC Legacy Sites are dispersed across the United States and Puerto Rico and are not federally owned. These sites fall under the umbrella of the MED/AEC Legacy Sites program because their long-term stewardship activities are similar in nature. LM manages records and supports stakeholders for the 10 remediated MED/AEC sites.

1.4.5 | Nuclear Waste Policy Act Section 151 Site

Under the NRC Site Decommissioning Management Program, owners can transfer certain sites where low-level radioactive contamination remains after site remediation to the federal government under Section 151 of the Nuclear Waste Policy Act (NWPA). In 2025, LM managed one NWPA site.

1.4.6 | Plowshare/Vela Uniform/Weapons Related Program

The Plowshare/Vela Uniform/Weapons Related (PVW) program consists of sites where AEC planned or conducted weapons-related experiments and underground nuclear and nonnuclear tests in the United States. LM managed 15 sites during 2025 under the PVW program. The tests, experiments, and other support work took place under three programs — Plowshare, Vela Uniform, and Weapons Related — and all had different purposes.

The Plowshare Program (1957–1975) explored using nuclear explosives for peaceful purposes. This included civil works projects, such as construction of dams, harbors, canals, highways, and railroads, and industrial projects, such as increasing production of ore, oil, and gas.

The Vela Uniform Program (1963–1971) developed technologies for detecting underground or underwater nuclear detonations. Several tests used nuclear and nonnuclear explosives to analyze seismic waves and help tell the difference between natural and human-made seismic events (earthquakes vs. nuclear tests).

The Weapons Related program conducted weapons-related tests that gathered data on nuclear devices intended for a specific type of weapons system. The program included atmospheric or underground nuclear tests that were usually conducted jointly with the U.S. Department of Defense.

Ten PVW sites were planned for or used for underground or aboveground nuclear testing. Of those 10 sites, the surface cleanups at three sites in Nevada were done under a Nevada-administered Federal Facility Agreement and Consent Order and the other seven sites were cleaned up and managed in collaboration with each host state's environmental agency. There is subsurface monitoring and other LTS&M work at the eight sites that had underground nuclear tests. This work is documented in the LTS&M Plans or similar documents for the site.

Four PVW sites were used for nonnuclear testing. Activities at these sites may have included chemical explosives experiments or construction to prepare for tests that did not happen. These four PVW sites require limited LTS&M; they have only temporary reporting requirements, such as monitoring revegetation until success criteria are reached. Current work at these sites may include assessing site conditions, removing remaining environmental impacts and safety hazards, managing site records, responding to stakeholder inquiries, and maintaining information on the program fact sheets and website.

The last of the 15 PVW sites is the Plowshare/Vela Uniform Records, Colorado, Sites, which is a collection of 165 project sites located within the United States counted as one site in the *LM Site Management Guide*. LM maintains records and responds to public inquiries.

1.4.7 | State Water Quality Standards Site

LM is responsible for records management and stakeholder support of one site under State Water Quality Standards. It was remediated to state requirements only, and no federal requirements apply. DOE completed the cleanup activities based on a California Regional Water Quality Control Board order. The U.S. Bureau of Land Management (BLM) then handed over the land and ended the right-of-way. The site is owned by a private entity.

1.4.8 | Uranium Mill Tailings Radiation Control Act Sites

The Uranium Mill Tailings Radiation Control Act (UMTRCA) addresses the cleanup, control, and regulation of uranium mill tailings at uranium mill sites under Title I and Title II.

- ⇒ Title I of UMTRCA set out cleanup requirements for uranium ore-processing sites whose uranium processing licenses were inactive before January 1, 1978, when the law went into effect. DOE is responsible for remediation at these sites. Uranium mill tailings and associated contaminated material are stored in disposal cells both on-site and off-site of Title I sites. LM managed 21 UMTRCA Title I sites in 2025.
- ⇒ Title II of UMTRCA set out the operation, decommissioning, reclamation, and long-term surveillance requirements for uranium ore-processing sites whose uranium processing licenses were active on January 1, 1978. These sites were commercially owned and regulated under NRC license. Once the site owner completes NRC-approved reclamation, DOE accepts title to the site for long-term custody and care. LM managed seven reclaimed UMTRCA Title II sites in 2025; the number will increase as more sites transfer from the licensees to LM for LTS&M.

1.5 Additional LM Programs and Facilities

In addition to post-closure site responsibilities, LM manages the following programs and facilities. Section 1.8 provides specific work for 2025.

- ⇒ **Applied Studies and Technology (AS&T) Program:** An overriding LM goal is to use advances in science and technology to improve LM's ability to protect human health and the environment. AS&T is a core component of LM's efforts to fulfill this goal by combining improvements in scientific understanding and technology with management strategies to decrease long-term costs. AS&T conducts studies to fulfill these goals and to continually improve the quality of LTS&M and the cost effectiveness, sustainability, and protectiveness of the remedies at LM sites. The AS&T team works on these studies with other federal agencies, the environmental community, universities, national laboratories, and the international scientific community so that LM can stay informed about new engineering and scientific advancements to support LM studies and promote data sharing, collaboration, and scientific achievements.
- ⇒ **Defense-Related Uranium Mines (DRUM) Program:** LM established this program in 2017 under the authority of the National Defense Authorization Act for fiscal year (FY) 2013. LM conducts verification and validation (V&V) work at more than 3,400 DRUM sites, most of which are in Arizona, Colorado, New Mexico, Utah, and Wyoming.

V&V work includes confirming mine locations; recording mine related features in the field; collecting radiological data, soil samples, and water samples; determining reclamation or remediation status; and screening for physical safety hazards and risks to human health. The DRUM program also partners with other agencies to safeguard mines, including closing mine openings by installing gates or backfilling the opening and, when necessary, removing mine-related structures to protect public safety, human health, and the environment.

- ⇒ **Records Management:** The Legacy Management Business Center (LMBC) in Morgantown, West Virginia, is certified by the National Archives and Records Administration as an official repository for storing federal records. The facility is environmentally controlled and capable of storing approximately 150,000 cubic feet of physical records, including a climate-controlled vault for microfilm, negatives, photographs, and other media.
- ⇒ **LM Occupied Facilities:** LM carries out its mission from nine occupied facilities in the following locations:
 - ❖ Fernald Preserve, Ohio, Site
 - ❖ LM Field Support Center (LMFSC) at Grand Junction, Colorado
 - ❖ LM Operations Center at Westminster, Colorado
 - ❖ LMBC at Morgantown, West Virginia
 - ❖ Monticello, Utah, Disposal and Processing Sites
 - ❖ Navajo Nation Outreach Office at Window Rock, Arizona
 - ❖ Pinellas County, Florida, Site
 - ❖ Shiprock, New Mexico, Disposal Site
 - ❖ Weldon Spring Site, Missouri
 - ❖ Temporary accommodations are used by field staff during part of the year at the Grand Junction, Colorado, Disposal Site (GJDS) and the Mound, Ohio, Site. The Tuba City, Arizona, Disposal Site is also not considered an occupied site but has accommodations that can be used by field staff to support field work. Although these locations are used part of the year, the staff are accounted for at one of the nine occupied sites.
- ⇒ **Radiometric Calibration Facilities:** LM maintains five facilities used to calibrate instruments for measuring uranium, thorium, and potassium. LM grants access to these facilities to non-LM users.
 - ❖ Casper, Wyoming
 - ❖ George West, Texas
 - ❖ Grand Junction, Colorado, Site
 - ❖ Grand Junction Regional Airport in Grand Junction, Colorado
 - ❖ Grants, New Mexico
- ⇒ **Title X:** Title X of the Energy Policy Act of 1992 authorizes DOE to reimburse licensees of one thorium and 13 uranium processing sites for some of their remedial action costs attributable to the sale of source material to the federal government.

Under the Title X program, DOE receives claims from NRC or Agreement State licensees annually, conducts technical reviews and financial audits of the claims to determine the amount allowable for reimbursement, reimburses each licensee, and tracks amount paid, disallowed, and owed in a running ledger.
- ⇒ **Uranium Leasing Program (ULP):** The Atomic Energy Act (AEA) and other legislation allowed AEC to withdraw lands from the public domain and lease them to private industry for mineral exploration — specifically, mining for uranium and vanadium ore. AEC withdrew about 490,000 acres of land in southwestern Colorado, northern New Mexico, and southeastern Utah during the late 1940s and early 1950s. The lands in New Mexico and Utah were returned to the public domain in 1994 and 1999. LM manages the ULP, administering 31 uranium mining lease tracts covering about 25,000 acres within the Uravan Mineral Belt in southwestern Colorado, in Mesa, Montrose, and San Miguel counties. LM's duties include monitoring and overseeing leaseholders' activities and annual inspections to find and fix safety hazards and environmental compliance issues.

1.6 Oversight

DOE assigns an LM site manager (and deputy site manager at some sites), project manager, program manager, or field manager to each LM site or activity to oversee the scope, schedule, and budget of work, address stakeholder concerns, and ensure that work complies with regulations and protects human health and the environment. This LM manager reviews all reports for their sites or activities to make sure that data is accurately reported.

1.7 LM Site Categories

LM categorizes sites based on the level of actual or anticipated LTS&M activities for the site. In general, there are fewer activities and less environmental monitoring at the lower-category sites, resulting in less documentation and reporting. However, a site's category can change depending on site conditions, such as changes in groundwater remediation strategies or regulatory requirements. The Pre-Gondola and Trencher, Montana, Site changed from Category 2 to Category 1 in 2025.

Appendix A summarizes the monitoring and associated reporting for each site. Sites geographically grouped as one in the *LM Site Management Guide* are addressed separately in the tables. Most of the information in the tables is available on the site-specific websites accessible at <https://www.energy.gov/lm/lm-sites> and from the site-specific links in Appendix A of this report. Additional reporting information is available upon request.

NOTE:

LM counts each geographic location as one site; however, some have multiple components, such as a former processing site and an associated disposal site. These components are listed separately in the appendix tables, so there are more entries on the tables than the official site count of 103.

The three categories of LM sites and site counts, according to the *LM Site Management Guide*, are as follows:

⇒ Category 1 sites:

- ↳ 48 LM sites are Category 1, listed in Table A-1 of Appendix A.
- ↳ LM activities include record-keeping and stakeholder support. Historical site information is available online and accessible for stakeholders.
- ↳ LM performs limited LTS&M actions due to final site conditions that do not require regulatory inspections or sampling.

⇒ Category 2 sites:

- ↳ 48 LM sites are Category 2, listed in Table A-2 of Appendix A.
- ↳ LM activities may include:
 - › Conducting required inspections (usually every year) and maintenance.
 - › Sampling environmental media, as required.
 - › Addressing potential environmental liabilities and safety hazards.
 - › Managing site records and answering stakeholder inquiries and requests for information; historical site information and monitoring results are accessible online for stakeholders.
 - › Carrying out and managing institutional controls, such as access agreements or land-use controls through federal ownership.
 - › Writing inspection, monitoring, and compliance reports, as required.

⇒ Category 3 sites:

- ↳ Seven LM sites are Category 3, listed in Table A-3 of Appendix A.
- ↳ In addition to the activities listed above for Category 2 sites, LM activities at Category 3 sites can include:
 - › Operating and maintaining active remedial action systems, such as pump-and-treat systems for contaminated groundwater.
 - › Inspecting and verifying the integrity of engineered and institutional controls.

1.8 Summary of Facility- and Program-Specific Activities

LM performed the following facility and program activities in 2025 in addition to work completed at the categorized sites:

⇒ AS&T program:

- ↳ Regular engagements with LM and Legacy Management Support Partner (LMSP) leadership ensured that AS&T remained responsive to emerging priorities, maintained its focus on activities that yielded the greatest return in performance and reduced costs, and provided long-term stewardship value.
- ↳ AS&T's applied work produced tangible field outcomes this year. The team provided solid technical support to various site operations, from planting new vegetation and maintaining lysimeters to analyzing water flow and checking important infrastructure.
- ↳ The program launched three high-impact focus area investigations designed to address LM's most pressing technical challenges: improving erosion resilience of disposal cell covers, integrating machine learning to enhance soil moisture monitoring, and ensuring the continuity of satellite-based vegetation and evapotranspiration assessments. Each of these initiatives moves LM closer to a data-informed, predictive stewardship model that emphasizes risk reduction, cost reduction, and long-term reliability.
- ↳ Mentored eight student interns during summer 2025 as part of the Educational Collaboration Initiative, which underscores LM's commitment to science, technology, engineering, and mathematics (STEM) education and strengthens partnerships with both Tribal and non-Tribal colleges and universities.

⇒ DRUM program:

- ↳ Completed field V&V work on:
 - 27 mines on public lands in Colorado, New Mexico, Utah, and Wyoming.
 - 53 mines on the Navajo Nation in Arizona and Utah.
 - 94 mines on private property in Colorado, New Mexico, Utah, and Wyoming.
- ↳ Prepared summary V&V and risk assessment reports for each mine or group of mines, including mines on public lands, the Navajo Nation, and private property, to share with partnering agencies and Tribes.
- ↳ Partnered with state and other federal agencies to complete mine safeguarding activities, including closing mine openings by installing devices such as gates or backfilling the opening and, when necessary, removing materials of no historical value.
- ↳ DRUM field work is planned to conclude on September 30, 2026, completing all the public, Tribal, and a significant portion of private mines. Reports and project closeout will continue through 2027.
- ↳ Safeguarding strategies are outlined in the following report: [Defense-Related Uranium Mines Safeguarding Program Management Plan](#). Safeguarding activities will conclude by December 31, 2030.

⇒ Radiometric calibration facilities:

- ↳ Maintained and inspected the facilities and kept records.

⇒ Title X:

- ↳ During the reporting period, LM finalized a [status report](#) on the reimbursements to licensees of active uranium and thorium processing sites for the previous calendar year.

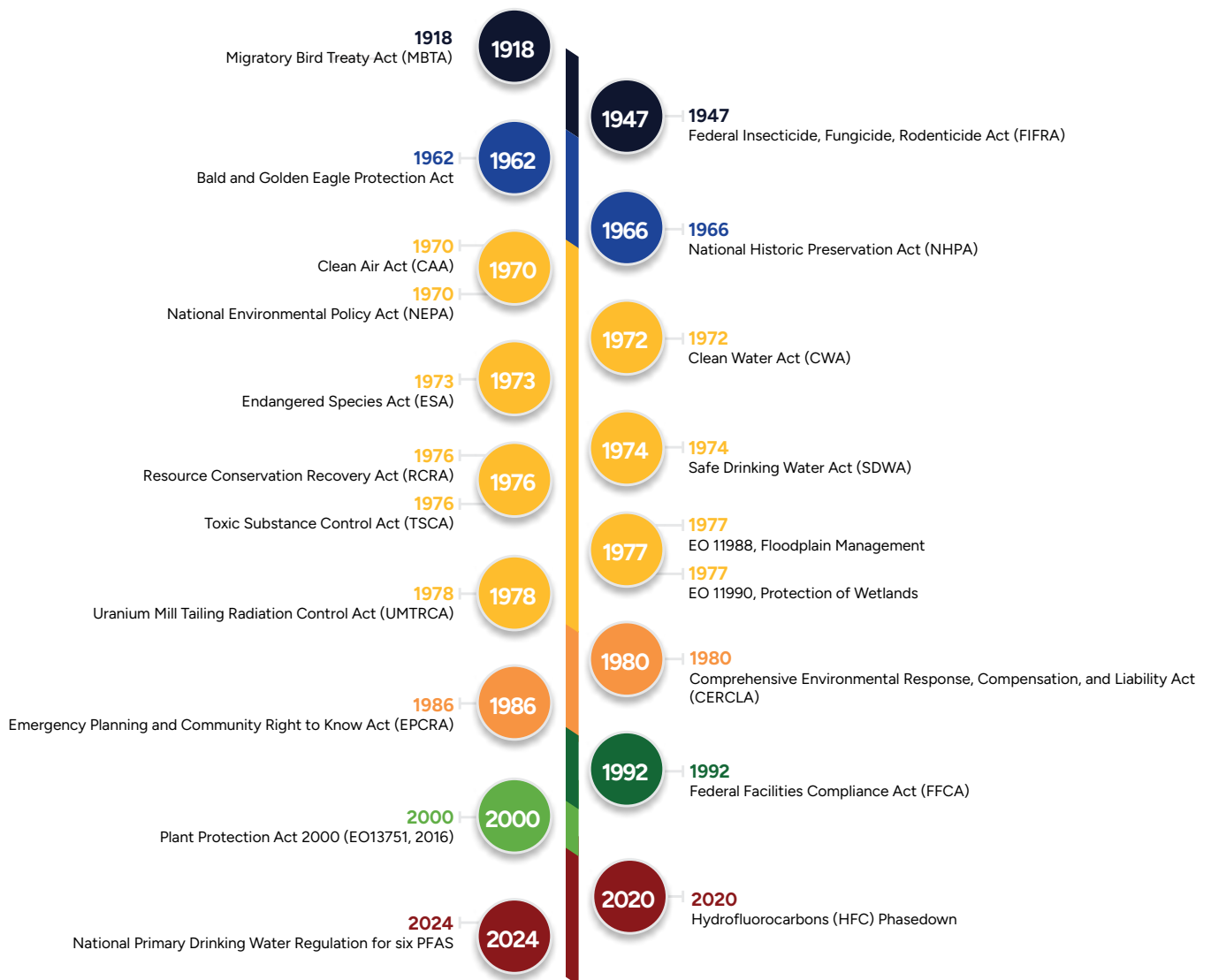
⇒ ULP:

- ↳ 2025 activities information is available in the [DOE ULP Annual Status and Activities Report for Calendar Year 2025](#).

2.0 Environmental Compliance

The following sections summarize compliance with applicable environmental regulations. Because LM manages sites under different regulatory frameworks, requirements vary. Figure 3 shows a timeline of environmental requirements included in this section that apply to LM sites. Changes and updates made to Executive Orders; DOE Orders; and state, local, and Tribal regulations are reviewed and tracked for LM sites and identified for evaluation in the LMSP Environmental Compliance Regulatory Review Quarterly Reports.

Environmental Regulations: Timeline



Note: This is not an all-inclusive list of regulations that pertain to LM work, merely a representation of regulations supporting the sections of this chapter.

Abbreviation: EO = Executive Order

Figure 3. Environmental Statutory Requirements Timeline

2.1 Compliance Status Overview

Due to the sheer number of sites and the regulatory complexity of LM's portfolio, environmental compliance obligations include a significant number of applicable environmental statutes, regulations, DOE Directives, Executive Orders (EO), and other possible agreements for individual LM sites. Comprehensive environmental reviews are conducted for new actions to ensure compliance. Compliance status, including any applicable permits, can be found throughout this ASER under separate chapters. Individual LM site information and links to site reports outlining compliance obligations can be found in Tables A-4 and A-5.

See Section 2.9 for Environmental Violations and Compliance Issues Summary.

2.2 Environmental Restoration and Waste Management

2.2.1 | CERCLA

CERCLA was enacted by Congress in 1980 to enforce cleanup and reporting requirements at abandoned or uncontrolled hazardous waste sites. CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act. Typically, the lead agency at a federal facility, such as DOE, begins a response action under CERCLA if there is a release or a substantial threat of a release of a hazardous substance into the environment.

At LM CERCLA sites, remedial actions have been completed under regulations by EPA and state agencies, with the exception of long-term monitoring and active groundwater remediation at several sites. The status of each site is available on site-specific links provided in Appendix A. A Five-Year Review (FYR) report (see Tables A-2 and A-3) is required for each CERCLA site with remaining residual contamination above unrestricted use/unlimited exposure criteria to make sure the remedy is still protecting human health and the environment.

In 2025, CERCLA activities included the following:

- **Laboratory for Energy-Related Health Research, California, Site:** LM drafted the Third FYR and is working with EPA to finalize it by September 30, 2026.
- **Monticello site:** LM kicked off preparation of the Seventh FYR and plans to finalize the reports during the summer of 2027.
- **Rocky Flats Site:** LM is preparing the Sixth FYR, which will be completed in August of 2027.
- **The Weldon Spring Site, Fernald Preserve, and Mound site** also began drafting FYR reports during 2025. The FYR reports for these sites are due to be finalized in September 2026.

2.2.2 | Emergency Planning and Community Right-to-Know Act

The **Emergency Planning and Community Right-to-Know Act** (EPCRA) requires federal facilities that use, produce, or store extremely hazardous substances (EHS), hazardous substances, hazardous chemicals, or toxic chemicals in amounts above specific thresholds to report them and any planned or accidental environmental releases to federal, state, and local emergency planning authorities. Site-specific hazardous chemical inventory (EPCRA Tier II) and Toxics Release Inventory (TRI) reports must be submitted to federal, state, and local emergency planning authorities if specific reporting thresholds are equaled or exceeded.

Table 2 lists the status of EPCRA reporting for calendar year (CY) 2025.

Table 2. Status of EPCRA Reporting

Status of EPCRA Reporting

EPCRA Section	Description of Reporting	Status
Sec. 301-303	Emergency Planning Notification and Emergency Response Plans. Local governments to prepare chemical emergency response plans	NA
Sec. 304	Emergency EHS or Hazardous Substance Release Notification	NA
Sec. 311-312	Safety Data Sheet/Hazardous Chemical Inventory Reporting Planning Notification EPCRA Tier II reports are used to provide state and local officials and the public with specific information on potential hazards associated with hazardous chemicals and EHSs present at a site	An internal EPCRA webpage is used to maintain chemical inventory reports, as well as the required documentation (e.g. reporting threshold calculations, documentation of exemptions) Tier II reporting for the following sites in 2025: ⇒ LMBC, for the storage and use of lead-acid batteries containing sulfuric acid, an EHS ⇒ LMFSC, for the storage and use of lead-acid batteries containing sulfuric acid, an EHS ⇒ Rocky Flats Site, Colorado, for the storage and use of lead-acid batteries containing sulfuric acid, an EHS ⇒ Rifle, Colorado, Disposal Site, for the storage and use of lead-acid batteries containing sulfuric acid, an EHS ⇒ Tuba City, Arizona, Disposal Site, for the storage and use of hydrochloric acid, a hazardous chemical
Sec. 313	TRI reporting, which is required for toxic chemicals manufactured, processed, or otherwise used at a site above reporting thresholds	Was not required for any sites for reporting year 2025, as all sites were below reporting thresholds

Abbreviation:

NA = Not applicable.

2.2.3 | RCRA

RCRA was enacted by Congress in 1976 to govern the management of solid and hazardous waste and establish standards to regulate waste generators and treatment, storage, and disposal facilities. RCRA was amended in 1984 by the Hazardous and Solid Waste Amendments (HSWA). Among other requirements, HSWA mandated waste minimization, corrective action, and land disposal restrictions for hazardous waste. RCRA is applicable to LM sites that generate hazardous or universal waste.

The following activities were performed in compliance with RCRA:

📍 **Pinellas County site:**

- ➡ Maintained an active RCRA HSWA corrective action permit issued by the state of Florida. The permit includes requirements for remedial action at the site under the state's Global Risk-Based Corrective Action regulations. The HSWA corrective action permit was reissued in October 2021.

- ↳ Completed RCRA inspections by the Florida Department of Environmental Protection at the Pinellas site on March 7 and December 3, 2025. The site was in compliance during both inspections and there were no findings.
- ❖ **LMFSC:** Transported unneeded chemicals, some of which qualified as hazardous waste, from the LMFSC to approved county-run hazardous waste collection facilities for disposal.
- ❖ **Tuba City site:** Corrosive hazardous waste was generated and stored at the Tuba City site as part of an unplanned episodic event (see “[Alternative Standards for Episodic Generation](#)”). Necessary notifications and reporting were completed, and the corrosive hazardous waste was scheduled for removal from the site in early 2026.
- ❖ **LMBC:** Maintained an EPA identification number for the LMBC and paid the annual waste generator’s fee.
- ❖ Managed universal waste from pertinent LM sites for off-site disposition at approved recycling or disposal facilities.

2.2.4 | Federal Facility Compliance Act

Enacted in 1992, the [Federal Facility Compliance Act](#) (FFCA) amended RCRA to ensure all federal facilities comply with applicable federal and state hazardous waste laws, waive federal sovereign immunity under those laws, and allow the imposition of fines and penalties. The FFCA gives EPA authority to issue administrative compliance orders to federal agencies that violate hazardous waste laws and requires EPA to annually inspect RCRA Part B-permitted federal treatment, storage, and disposal facilities. LM does not currently have RCRA Part B-permitted facilities.

LM maintains programmatic and site-specific policies, plans, and procedures for its sites, as needed, to comply with all applicable requirements under the FFCA. Internal LM manuals are also used for RCRA waste management instructions and procedures.

2.2.5 | National Environmental Policy Act

The [National Environmental Policy Act](#) (NEPA) was enacted in 1970 to help federal officials make decisions based on an understanding of environmental consequences; foster public participation; and protect, restore, and enhance the environment. It requires federal agencies, including LM, to evaluate the potential environmental effects of their proposed actions.

NEPA documentation is usually not required for CERCLA sites that considered NEPA values in their decision documents. Actions at non-CERCLA LM sites are usually within categorically excluded classes of actions. The evaluations of these actions are documented with a *NEPA Categorical Exclusion Evaluation Form* and a *NEPA Categorical Exclusion Determination Form*. Recent excluded actions can be reviewed at [Categorical Exclusion Determinations: Legacy Management](#). The following is a summary of NEPA documents either completed or in progress in 2025:

- ⇒ 24 Categorical Exclusion Evaluations were completed and approved.
- ⇒ LM was a cooperating agency in the BLM Uncompahgre Field Office Resource Management Plan Environmental Impact Statement (EIS) Amendment; review of the draft EIS is ongoing.
- ⇒ Bear Creek site (future site): LM continued work with BLM on the draft Environmental Assessment required for the land withdrawal process.

2.2.6 | Toxic Substances Control Act

The [Toxic Substances Control Act](#) (TSCA) was enacted in 1976 and regulates the manufacturing, use, distribution in commerce, abatement, and disposal of toxic substances, including polychlorinated biphenyl, asbestos, lead, mercury, and radon. LM’s management of some older buildings may require assessment and abatement of TSCA-regulated substances, especially asbestos. LM conducts routine chemical use evaluations for TSCA chemicals as they move through the EPA Risk Evaluation process.

No activities were performed related to the generation or disposal of TSCA-regulated waste at any LM sites in 2025.

2.2.7 | Federal Insecticide, Fungicide, and Rodenticide Act

The [Federal Insecticide, Fungicide, and Rodenticide Act](#) (FIFRA) regulates the registration, labeling, storage, distribution, use, and sale of pesticides and requires a certified applicator to supervise the application of restricted-use herbicides or pesticides. FIFRA also encourages federal agencies to use integrated pest management (IPM) when possible.

Herbicides and pesticides are used at many LM sites as part of its land stewardship responsibilities. Policies, procedures, and manuals are in place to ensure that herbicides and pesticides are applied in compliance with FIFRA. See Section 2.8.3, Invasive Species Management, for more details.

2.3 Radioactive Protection

The type of radioactive waste generated at an LM site is dependent on the source and characteristics of the radioactivity and the regulatory drivers for radioactive material at the site. For example:

- ⇒ Radioactive waste generated at a CERCLA or RCRA site is typically characterized as one of the following:
 - ↳ Low-level radioactive waste
 - ↳ Naturally occurring radioactive material
 - ↳ AEA Section 11e.(2) byproduct material
- ⇒ Radioactive waste generated at an UMTRCA site is characterized as one of the following:
 - ↳ Residual radioactive material (UMTRCA Title I site)
 - ↳ AEA Section 11e.(2) byproduct material (UMTRCA Title II site)

Management and disposal requirements are different for these specific waste types. Radioactive wastes are managed in accordance with the AEA; UMTRCA; 10 CFR 40, “[Domestic Licensing of Source Material](#)”; and DOE Order 435.1 Chg 2 (Admin Chg), [Radioactive Waste Management](#). See Section 2.3.3 for more information on radioactive waste management.

2.3.1 AEA of 1954

The AEA encourages widespread development and use of atomic energy for peaceful purposes as much as possible while remaining consistent with defense and security needs and the health and safety of the public.

The only site-specific activity related to the AEA and 11e(2) byproduct material in 2025 was radioactive waste generated at the Weldon Spring Site. In December 2025, the Weldon Spring Site shipped three drums consisting of used ion-exchange resin, activated carbon, and personal protective equipment to a facility permitted to dispose of 11e.(2) byproduct material.

2.3.2 | DOE Order 458.1, Radiation Protection of the Public and the Environment

DOE Order 458.1, [Radiation Protection of the Public and the Environment](#), establishes requirements to protect the public and environment against undue risk from radiation from work done by DOE under the AEA. DOE sites must conduct radiological work to ensure exposure to members of the public is within the dose limits established in the Order; control the radiological clearance of DOE real and personal property; and ensure that potential radiation exposures to the public are within acceptable limits. DOE sites must monitor routine and nonroutine radiological releases and assess the radiation dose to members of the public as well as protect the environment from the effects of radiation and radioactive material.

No radioactive waste was generated or accumulated in CY 2025 that required compliance with DOE Order 458.1.

2.3.3 | DOE Order 435.1, Radioactive Waste Management

DOE Order 435.1 establishes requirements for DOE radioactive waste management. Radioactive waste is managed to protect the public, workers, and the environment while maintaining compliance with applicable federal, state, and local regulations. The following are site-specific activities related to radioactive waste management:

- ❖ **Fernald Preserve:** The site generated approximately 1 cubic yard of low-level radioactive waste in 2025 and managed a total of 1.20 cubic yards in an IP-1 closed metal box container in accordance with DOE Order 458.1. The low-level radioactive waste is generated as a result of groundwater remediation operations.
- ❖ **Monticello site:** The temporary storage facility at the Monticello disposal site receives and stores site-related radiologically contaminated material (AEA Section 11e.(2) byproduct material), primarily materials excavated from supplemental standards areas in Monticello. No additional radioactive material was placed in the temporary storage facility in 2025. The facility contained approximately 6.5 cubic yards at the end of the year.
- ❖ **GJDS:** LM continues to operate and receive radioactive materials at this site, which is used for the permanent disposal of residual radioactive materials described in UMTRCA Title I Sections 101 and 102 and other radioactive materials as described in the site’s waste acceptance criteria. On December 27, 2020, the [Consolidated Appropriations Act](#), 2021 reauthorized the disposal cell to remain open until it reaches capacity or until September 30, 2031, whichever comes first. LM will continue to operate the disposal cell and plan closure activities to meet the new extended timeline.

- ↳ Approximately 1,762 cubic yards of radioactive materials were received for disposal at the GJDS during 2025 from several UMTRCA Title I sites.

2.4 Air Quality and Protection Compliance Status

2.4.1 | Clean Air Act

The [Clean Air Act](#) (CAA) was enacted in 1970 to regulate air emissions from stationary and mobile sources. The CAA authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare, to regulate emissions of hazardous air pollutants, and to develop technology-based standards that apply to specific source categories, among other things. The NAAQS were accompanied by direction to the states to develop state implementation plans to achieve these standards. The CAA establishes several air-permitting programs designed to carry out the goals of the act. LM completed the following activities in 2025 under the CAA:

- ◊ **LMBC:** Submitted the annual fee to the West Virginia Department of Environmental Protection Division of Air Quality for a required air permit to continue operating an emergency generator at the LMBC.
- ◊ **LMFSC:** Received an Air Pollutant Emission Notice exemption from the Colorado Department of Public Health and Environment in June of 2025 for the installation of an emergency generator.

2.4.2 | National Emission Standards for Hazardous Air Pollutants

[National Emission Standards for Hazardous Air Pollutants \(NESHAP\) Subpart H](#) protects the public and the environment from radionuclide emissions other than radon from DOE facilities. It sets a limit on the emissions of radionuclides so that no member of the public would receive an effective dose equivalent of more than 10 millirem/year (similar to a dental X-ray). NESHAP Subpart H does not apply to any LM sites because no activities at any LM sites have the potential to emit any non-radon radionuclides.

NESHAP Subparts Q and T protect the public and environment from radon emissions from DOE facilities. These rules set limits on the emissions of radon so that no DOE site will emit greater than 20 picocuries per square meter per second of radon. All LM sites subject to these NESHAP subparts have been brought into compliance with the standards by the compliance dates that were established in the subparts and remain in compliance with those standards.

[NESHAP Subpart ZZZZ](#) establishes national emission standards for hazardous air pollutants for stationary reciprocating internal combustion engines, which includes emergency generators. The emergency generator at the LMBC is subject to NESHAP Subpart ZZZZ and meets the requirements of the NESHAP by complying with the New [Source Performance Standards Subpart IIII](#) for compression ignition engines discussed in Section 2.4.3.

2.4.3 | New Source Performance Standards

New Source Performance Standards Subparts [IIII](#) and [JJJJ](#) set emissions standards for stationary compression and spark ignition engines, which includes many emergency generators. The emergency generators at the LMBC and LMFSC are subject to New Source Performance Standards [IIII](#) and [JJJJ](#) respectively and comply with the applicable standards.

2.4.4 | Hydrofluorocarbon Phasedown

The [American Innovation and Manufacturing Act](#), also called the AIM Act, outlines the requirements to phase down hydrofluorocarbon (HFC) consumption and production to 15% by 2035. EPA began implementing the requirements in October 2021. LM has reviewed the current uses and inventory of HFCs at LM sites. Uses include commercial refrigerators, freezers, and drinking fountain coolers. As these items are replaced, LM will seek items with alternative coolant sources. In 2025, LM removed from service four units containing HFCs from items at the LMBC, LMFSC, and Fernald Preserve.

2.5 Water Quality and Protection Compliance Status

2.5.1 | Clean Water Act

The [Clean Water Act](#) (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States (WOTUS) and regulating water quality standards for surface waters. The CWA is codified in various sections. The most common sections are:

- ⇒ [Section 401](#) requires certification from the state or Tribe that the project complies with water quality standards before a federal agency issues a permit or license that may result in discharge to WOTUS.
- ⇒ [Section 402](#) establishes the National Pollutant Discharge Elimination System (NPDES) permit program, which regulates point source discharges to WOTUS.
- ⇒ [Section 404](#) regulates discharges of dredge and fill material into WOTUS.

In 2025, multiple LM sites obtained Section 401 certifications and maintained NPDES permits or Section 404 permits. LM also obtained NPDES permits for stormwater discharges for construction work at several LM sites for project-related earth-disturbing activity. See below for more details.

2.5.1.1 | CWA Section 401 Compliance

CWA 401 requires that any entity seeking a federal license or permit for activities that may result in a discharge into WOTUS must first obtain a certification from the state or Tribe that the project complies with water quality standards.

One project at an LM site in 2025 required a CWA Section 401 certification:

- 🔍 **Shiprock site:** The Shiprock Water Treatment Unit (WTU) project completed individual CWA 401 certifications for the NPDES discharge permit and for permit coverage under Section 404 of the CWA.

2.5.1.2 | CWA Section 402 Compliance: NPDES and Stormwater Management

Section 402 of the CWA establishes the NPDES, which regulates point source discharges of pollutants into U.S. surface waters. It prohibits discharging pollutants from pipes, ditches, or sewers without a permit.

The CWA established a stormwater management program to reduce runoff and improve water quality. LM evaluates all construction projects to ensure that they have NPDES permit coverage for stormwater discharges from construction activity disturbing 1 acre or more or, when applicable, Low Erosivity Waivers when disturbing 1-5 acres. LM also ensures that construction and postconstruction stormwater management standards are met and erosion controls are carried out as required by the NPDES permit.

Projects at LM sites in 2025 that required coverage under CWA Section 402 NPDES permits were:

- 🔍 **Shiprock site:** The Shiprock WTU project required coverage under the EPA Construction General Permit (CGP) for Stormwater Discharges.
- 🔍 **Rifle site:** Required a Low Erosivity Waiver from the EPA CGP for the AS&T disposal cell void-filled riprap pilot project.
- 🔍 **Riverton, Wyoming, Processing Site:** The Alternate Water Supply System (AWSS) project required coverage under the EPA CGP for Stormwater Discharges, the Wyoming Small CGP for Storm Water Discharges Associated with Small Construction Activities, and the Wyoming General Permit for Temporary Discharge Involving Construction Activities (Non-Contaminated Groundwater Construction Dewatering; Potable Water Line Disinfection; and/or Pipe, Tank or Other Similar Vessel Hydrostatic Testing).
- 🔍 **Weldon Spring Site:** Stormwater general permits obtained from the Missouri Department of Natural Resources and St. Charles County in 2024 for the demolition of the Programmatic Storage Building and construction of the new parking lot were terminated in 2025.
- 🔍 **Bluewater site:** The off-site well installation project required coverage under the EPA CGP for stormwater discharges.
- 🔍 **Fernald Preserve:** Maintains an NPDES permit for groundwater and effluent discharges to the Great Miami River. As part of overall groundwater management program, Fernald Preserve treats approximately 40,000 gallons per day on-site prior to discharge.

2.5.1.3 | CWA Section 404 Permits

Section 404 of the CWA establishes a program to regulate the discharge of dredge and fill material into WOTUS, which includes some wetlands. LM evaluates all projects to make sure any work along creeks, wetlands, streams, drainage ditches, reservoirs, ponds, and lakes complies with CWA Section 404.

Projects at LM sites in 2025 that required coverage under CWA Section 404 or USACE Dry Land Approved Jurisdictional Determinations were:

- ❖ **Shiprock site:** The Shiprock WTU Project required coverage under a CWA Section 404 Nationwide Permit for the construction of effluent pipelines and discharge outfalls.
- ❖ **Riverton site:** The AWSS project was subject to CWA Section 404 nationwide permit coverage due to proximity of construction activities to WOTUS.

2.5.2 | Safe Drinking Water Act

The [Safe Drinking Water Act](#) (SDWA), enacted in 1974, authorized EPA to regulate contaminants in drinking water and required EPA to establish national standards to be carried out and enforced by authorized states.

SDWA is an applicable or relevant and appropriate requirement for LM CERCLA sites with respect to groundwater contamination. This information is detailed in the environmental monitoring reports for each site (see links to applicable sites in [Table A-2](#)).

LM does not own or operate any drinking water systems. Most occupied LM sites and facilities have service connections to municipal drinking water systems provided by the local utility company, which are operated and maintained in accordance with the SDWA. No groundwater or surface water from LM sites is used to supply drinking water either on-site or off-site.

In 2025, water quality testing was completed at LM occupied facilities as part of a baseline water quality initiative. Water sampling was completed following guidance from the [U.S. General Services Administration Public Building Service Order 1000.7A, Drinking Water Quality Management](#). Water quality testing began in July 2025 and involved a qualified subcontractor collecting water samples from 11 occupied or periodically occupied LM sites. Samples were analyzed for lead, copper, coliform bacteria (including *E. coli*), and legionella. After testing, each site received a summary of its results along with any follow-up steps needed. Since completing the baseline testing, LM, LMSP, and the qualified subcontractor have developed and carried out response action plans at sites requiring additional action.

A few LM sites have unique situations regarding drinking water:

- ➡ The Tuba City site has an off-site DOE-owned well that historically has been used for domestic water on-site. Total coliforms were discovered during the baseline water quality tests in 2025. The well is currently not being used for human consumption purposes, and a disinfection system will be installed prior to resuming well use for human consumption. Bottled water is provided to personnel when on-site. The water has historically been used for hand washing, restroom use, and dishwashing. It will continue to be used for these purposes once the disinfection system is installed and operational.
- ➡ At the GJDS and the Mound site, both of which are unoccupied except when personnel are on-site for project or monitoring and maintenance activities, municipal water is trucked in and stored in on-site water tanks for use in sinks, toilets, and outside water spigots and during placement of low-level radioactive material in the active portion of the GJDS, but not for drinking water. At both of these sites, bottled water is provided for drinking.

2.5.3 | CWA Oil Pollution Prevention

Spill Prevention, Control, and Countermeasure Plans are maintained in accordance with [Oil Pollution Prevention](#) regulations to help facilities prevent a discharge of oil into navigable waters or adjoining shorelines. This pertains to oil (including fuel) stored at LM sites in containers (55 gallons or larger) with a total capacity of 1,320 gallons or more.

- ➡ No Spill Prevention, Control, and Countermeasure Plans were required at LM sites in 2025.

2.6 Energy Independence and Security Act (EISA) Section 438

Under the [Energy Independence and Security Act \(EISA\)](#) Section 438, federal agencies are required to reduce stormwater runoff from federal facility development and redevelopment projects with a footprint over 5,000 square feet to maintain or restore predevelopment hydrology. Federal agencies can comply using a variety of stormwater management practices or “low impact development” practices, including reducing impervious surfaces and using vegetative practices, porous pavements, cisterns, and green roofs.

LM evaluated all federal facility building development and redevelopment projects to ensure compliance with EISA Section 438. In 2025, there were no projects involving development or redevelopment of buildings that disturbed a footprint of 5,000 square feet or more and required EISA compliance.

2.7 PFAS and Other Emerging Contaminants

“Emerging contaminants” is a broad term that refers to newly identified or reemerging substances, pollutants, or microorganisms that are known or anticipated to be in the environment and that may pose risks to human health, aquatic life, or the environment. Regulations often need to be created to deal with these emerging and challenging situations. Examples of emerging contaminants include per- and polyfluoroalkyl substances (PFAS), 1,4-dioxane, and vapor intrusion chemicals.

2.7.1 | PFAS

PFAS are an expansive group of human-made fluorinated compounds, nicknamed “forever chemicals” because the chemical bond in these chemicals is among the strongest, so PFAS do not readily break down in the environment. PFAS contamination can affect soil, groundwater, surface water, air, and tissue. PFAS have been used in various applications, including aqueous film-forming foam for firefighting, metal processing and plating, uranium isotope separation, and other MED applications. Additionally, PFAS are used in household products, floor sealants, food packaging, plumber’s tape, pipe dope, high-density polyethylene containers, and many other consumer products. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are the two most widespread and studied PFAS.

EPA and states have begun to issue regulations that establish analytical measuring and monitoring procedures for PFAS chemicals, identify treatment processes for removal in surface water and groundwater, and establish standards to protect human health and the environment.

In accordance with the [PFAS Strategic Roadmap: DOE’s Commitments to Action 2022-2025](#), LM completed initial reviews and assessments of current and historical PFAS use at the remaining 96 LM sites that were not included in DOE’s [Initial Assessment of Per- and Polyfluoroalkyl Substances at Department of Energy Sites](#). Upon completion of this assessment, all sites under LM stewardship have completed a preliminary PFAS evaluation.

LM also performed quarterly sampling for PFAS at three selected locations at the Rocky Flats Site. No other sampling for PFAS occurred in 2025 at LM sites.

For a history of PFAS at LM sites, see the 2024 ASER: [2024 Summary of Annual Site Environmental Reports](#).

2.7.2 | Other Emerging Contaminants

1,4-Dioxane is a clear, synthetic liquid chemical used mainly as a solvent in industrial manufacturing and as a stabilizer for chlorinated solvents. Because of its high water solubility and resistance to breaking down, it is an emerging contaminant frequently found in groundwater and drinking water supplies. In 2025, LM performed the following monitoring:

📍 **Pinellas County site:** Semiannual 1,4-dioxane sampling

Vapor intrusion is the process where volatile chemicals from subsurface sources, such as contaminated soil or groundwater, migrate into indoor air within a building. Vapor intrusion is also being examined as an emerging contaminant because of concerns about the vapor intrusion pathways. Details about vapor intrusion at LM in 2025 include the following:

📍 **Mound site:**

- ➔ Staff completed a [Phase II vapor intrusion sampling completion report](#) in 2025 and submitted the completion report to both EPA and the Ohio EPA in September 2025.
- ➔ Frequently asked questions about vapor intrusion at the Mound site can be found at [Vapor Intrusion FAQs](#).

No other sampling for emerging contaminants occurred in 2025 at LM sites.

2.8 Natural and Cultural Resources

2.8.1 | Endangered Species Act

Under Section 7 of the [Endangered Species Act](#) (ESA), DOE consults with the U.S. Fish and Wildlife Service (USFWS) on any action that may affect threatened or endangered species or their designated critical habitats. LM evaluates the potential presence of federally listed threatened or endangered species or their designated critical habitat during the project planning and environmental review process or whenever relevant changes in listings occur. For example, LM does an evaluation if a candidate species is elevated to threatened or endangered status or if a new designated critical habitat is identified that could be affected by LM work. LM uses the USFWS [Information for Planning and Consultation online tool](#) to get information on species and habitat occurrence.

Avoidance, minimization, and mitigation measures are carried out for site projects to avoid impacts to species. If LM determines impacts to listed species cannot be avoided during planned work, LM requests a Section 7 consultation with USFWS and prepares a Biological Assessment. USFWS will issue either a concurrence or a Biological Opinion in response. This response is required before starting the project field work. Additional consultation with Tribal authorities is required for Navajo Nation sites and may be required on other Tribal lands.

In 2025, the only threatened or endangered species investigation or consultation for LM occurred at the Rocky Flats Site, which continued to work with USFWS to update its 2004 Programmatic Biological Assessment for activities at the site.

2.8.2 | Navajo Endangered Species at LM Sites

The Navajo Nation Department of Fish and Wildlife manages the [Navajo Endangered Species List](#) (NESL) to protect plants and wildlife that have unique value to the Navajo. Four LM sites are on Navajo Nation lands: the Mexican Hat, Utah, Disposal Site; Monument Valley, Arizona, Processing Site; Shiprock, New Mexico, Disposal Site, and Tuba City, Arizona, Disposal Site. Based on Navajo Nation regulations, a consultation is required with the Navajo Natural Heritage Program and the Navajo Nation Department of Fish and Wildlife for projects on Navajo lands that could impact species on the NESL and other biological resources of concern. LM completes a Biological Resource Compliance Form to fulfill consultation requirements, which may outline more necessary actions, such as biological surveys or a Biological Evaluation, before project actions can begin.

- 📍 **Monument Valley site:** Received an approved Biological Resource Compliance Form for a proposed 2026 fencing project. No NESL or federal listed species would be potentially impacted and no other significant impacts to biological resources would occur from the proposed actions. No further action was required.
- 📍 **Tuba City site:** Received an approved Biological Resource Compliance Form for a proposed 2026 drilling project. No NESL or federal listed species would be potentially impacted and no other significant impacts to biological resources would occur from the proposed actions. No further action was required.

2.8.3 | Invasive Species Management

In accordance with FIFRA, the [Plant Protection Act](#), and Executive Order 13751, [Safeguarding the Nation from the Impacts of Invasive Species](#), LM uses IPM to control, eradicate, or prevent the spread of invasive species. IPM employs a variety of methods, including chemical, mechanical, cultural, and biological, to control noxious and invasive plants. As needed, LM also manages or controls nuisance wildlife that present health and safety hazards at its facilities.

IPM is employed at LM sites in accordance with the following internal documents:

- ➡ *Methodology for Implementing Integrated Pest Management at Western LM Sites*
- ➡ *Procedure for Applying Herbicides at the Fernald Preserve, Ohio, Site*
- ➡ *Rocky Flats Site, Colorado, Vegetation Management Plan*
- ➡ *Procedure for Handling Herbicides at Western Legacy Management Sites*
- ➡ *Procedure for Applying Herbicides at the Weldon Spring, Missouri, Site*

Herbicide applications comply with the CWA, the NPDES Pesticide General Permit or applicable state Pesticide General Permit restrictions, and state and county noxious weed laws.

In 2025, LM chemically treated more than 41 different species of noxious weeds and unwanted vegetation on approximately 977 acres at 24 sites (including various ULP lease tracts). In 2025, the following occurred:

- ➡ Decreased acreage of noxious weeds sprayed at seven sites

- ⇒ Increased acreage sprayed at 14 sites
- ⇒ No change in acreage sprayed at six sites

Mechanical control may include mowing, prescribed burns, and physical removal of noxious weed species. In 2025, at the Fernald Preserve, the U.S. Forest Service (USFS) completed prescribed burns of approximately 100 acres, which included the vegetation on the On-Site Disposal Facility cap and 20 acres of prairie.

Cultural control is an ecological technique that changes the plant environment to reduce pests and competing species, such as changing soil pH, changing irrigation practices, or revegetation. This technique was applied at several LM sites in 2025:

- ◊ **Rocky Flats Site:** Inter-seeding of native grasses and shrubs in areas of sparse vegetation continued. Monitoring was conducted where personnel hiked along all the drainages to note any new populations of noxious weeds that may have established due to animals, wind, or water moving noxious weed seeds around the site.
- ◊ **Fernald Preserve:** Native trees were planted to revegetate several acres where invasive Amur honeysuckle was mechanically removed.

Biological control is the intentional manipulation of natural enemies (biocontrol agents) by humans for the purpose of controlling plants or pests (target hosts) and can be an effective beneficial management technique. The biocontrol agents reduce the target host by suppressing it, outcompeting it for resources, or disrupting its ability to reproduce.

In 2025, LM continued to evaluate the use of U.S. Department of Agriculture-licensed, host-specific biological control agents for long-term natural control at its sites. Biological control agents (for example, insects) were released at three LM sites, assessed at two LM sites not previously assessed, and monitored at one LM site. LM continued to incorporate biological control into its environmental review process at several LM sites.

- ⇒ To support the development of biological control of noxious weed species at LM sites, several sites have been identified with noxious weeds for which biological controls agents are available. Approved biological control organisms were released at most of these sites. These sites were:
 - ◊ Naturita, Colorado, Processing Site
 - ◊ Slick Rock, Colorado, Disposal Site
 - ◊ Edgemont, South Dakota, Disposal Site
 - ◊ Split Rock, Wyoming, Disposal Site
 - ◊ Uranium lease tracts
- ⇒ An increase in pollinator best management practice acreage in 2025 resulted from the release of biological control agents with concurrent reductions in herbicide use and including pollinator-friendly wildflower species in reseeding projects at the following sites:
 - ◊ Riverton site
 - ◊ Tuba City site
- ⇒ At various LM sites, the acreage and types of pollinator-friendly best management practices implemented were tracked as part of annual monitoring.

2.8.4 | National Historic Preservation Act

The [National Historic Preservation Act](#) (NHPA) established a comprehensive national policy for protecting historic and prehistoric resources. Section 106 of NHPA requires federal agencies to consider the effect of its projects on historic properties, even if projects are not located on its lands. Section 110 of NHPA says federal agencies must identify and manage historic properties under their jurisdiction or control. Some projects require consultation with both a state historic preservation officer and a Tribal historic preservation officer or Tribal representatives.

- ⇒ Section 106 consultations:
 - ↳ LM initiated and completed the Section 106 consultation process 17 times in 2025. LM consulted with:
 - > Colorado State Historic Preservation Office and historically affiliated Tribes
 - > Navajo Nation Tribal Historic Preservation Office
 - > New Mexico State Historic Preservation Office and historically affiliated Tribes

- ⇒ Archaeological Surveys:
 - ↳ Class III Cultural Resource Inventory to Support Uranium Leasing Program in Montrose and San Miguel Counties, Colorado. Chronicle Heritage, August 6, 2025.
 - ↳ Cultural Resources Survey on State Land. U.S. Army Corps of Engineers, Albuquerque District, January 22, 2025.
 - ↳ Cultural Resources Survey for Off-Site Monitoring Wells for Bluewater Disposal Site in Cibola County, New Mexico, April 2, 2025.
 - ↳ Cultural Resources Survey for Soil Sourcing at the Bluewater, New Mexico, Site for the AS&T Erosion Risk Flume Study Project in Cibola County, New Mexico, September 16, 2025.
- **Tuba City site:** Cultural resources inventory surveys were completed in support of a proposed drilling project.
- **Monument Valley site:** Fieldwork began for a cultural resources inventory for a proposed fencing project, with completion planned in 2026.
- **Bluewater, New Mexico, Disposal Site:**
 - ↳ Bat Conservation International Inc. conducted bat habitat assessment cultural inventory surveys in February 2025. LM reviewed the final report in December 2025.
 - LM began Section 110 activities during 2025 related to archeological sites identified during the bat habitat assessment.

2.8.5 | Migratory Bird Treaty Act

The [Migratory Bird Treaty Act](#) (MBTA) prohibits owning or harming migratory birds or their parts, eggs, and nests without a USFWS permit. Additionally, EO 13186, [Responsibilities of Federal Agencies to Protect Migratory Birds](#), directs executive departments and agencies to further carry out the MBTA. DOE entered in a Memorandum of Understanding with the USFWS titled *Regarding Implementation of Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds"* to meet the requirements under EO 13186 in September of 2013, amended in 2017. Most birds at LM sites are protected under this act, and LM usually times disruptive work to avoid the nesting season of migratory birds. Some of the specific best management practices used in 2025 include the following:

- ⇒ Multiple LM site-specific environmental review documents and statements of work provided guidance to protect migratory birds. Environmental reviews identified specific time frames that would avoid impacts to nesting migratory birds and provisions to reduce the harm from work that could not be scheduled outside those time frames.
- ⇒ Field workers routinely looked for and avoided bird nests, eggs, or young birds during general surveillance, monitoring, and maintenance activities at LM sites.

2.8.6 | Floodplain and Wetland Management

DOE carries out floodplain and wetland management through its regulations on [Compliance with Floodplain and Wetland Environmental Review Requirements](#) along with two other EOs:

1. [EO 11988, Floodplain Management](#), was enacted in 1977 and requires federal agencies to avoid as much as possible short- or long-term work or disruptions that negatively affect floodplains and to avoid direct and indirect development in floodplain areas wherever there is a practical alternative. With EO 11988, LM considers working alternatives to avoid floodplains when possible and complies with this EO and other applicable federal, state, Tribal, and local requirements.
2. [EO 11990, Protection of Wetlands](#), was enacted in 1977 and the intent is to "minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these goals, EO 11990 requires LM to consider alternatives to work in or near wetland sites and to limit potential damage if work affecting a wetland cannot be avoided. When such work is unavoidable, LM complies with requirements specific to applicable CWA permits and any state or Tribal requirements. LM promotes the ecological sustainability and enhancement of wetlands when considering the disposition and reuse of federal lands.

The following LM projects implemented EO 11990 in 2025:

- Rocky Flats Site: Staff continued wetland mitigation monitoring to document the reestablishment of disturbed wetlands.
- Shiprock site: Wetland and floodplain impacts were minimized in accordance with the 2024 floodplain and wetland assessment during the installation of the WTU and associated infrastructure.
- Riverton site: LM decided to directionally drill underneath a wetland area along the AWSS upgrade project pipeline rather than trenching in the wetland. This ensures compliance with EO 11990 by avoiding impacts.

2.9 Environmental Violations and Compliance Issues Summary

This section identifies instances of environmental violations and compliance issues related to sites under LM’s management, such as notices of violation, notices of deficiency, and environmental occurrences. A summary of environmental notices for 2025 is as follows:

- No environmental notices of violation were received.
- Durango, Colorado, Disposal/Processing Site: One self-identified compliance issue occurred in which Well Construction and Yield Estimate Reports were submitted past the 60-day submittal requirement of the Colorado Division of Water Resources.
- Shiprock site: One self-identified compliance issue occurred during the WTU infrastructure project. An area of wetlands near the San Juan River was disturbed before the required permit authorization was received. USACE and Navajo Nation EPA were notified of the compliance issue. No formal enforcement or notice of violation was initiated by either agency. A revised Pre-Construction Notification was submitted to USACE to accommodate for the additional disturbance.

The EPA Enforcement and Compliance History Online (ECHO) database was reviewed for facility information and current compliance status. Table 3 lists LM sites with a Facility Registry Service ID number. All sites are in good standing with no compliance violations identified.

Table 3. LM Facilities Monitored in EPA ECHO Database

LM Facilities Monitored in EPA ECHO Database

ECHO Facility Name ^{ab}	Facility Address	Facility Registry Service Id
Amchitka	Amchitka Island, Adak, AK 99546	110064823464
U.S. Department Of Energy—Test Well (Bronco)	Colorado 122, Meeker, CO 81641	110070868928
Bluewater Disposal Site, Road Repair Project and Offsite SAGA2 MW and Access Route Construction	Anaconda Road, Bluewater, NM 87005	110071781615
U.S. DOE Fernald Environmental Management Project	7400 Willey Road, Hamilton, OH 45030	110000617850 110063878111
Laboratory For Energy-Related Health Research	Old Davis Road, CA 95616	110008278489
Lbar, New Mexico Disposal Site Road Repair Project	Cibola County Road 1 And Moquino Llano Road, Seboyeta, NM 87014	110071501629
Legacy Management Business Center	99 Research Park Way, Morgantown, WY, 26505	110071133982
U.S. Dept Of Energy – Grand Junction Office	2797 B ¾ Road, Grand Junction, CO 81503	110000610580

Table 3. LM Facilities Monitored in EPA ECHO Database (continued)

ECHO Facility Name ^{ab}	Facility Address	Facility Registry Service Id
Maxey Flats Disposal Site	Hwy 1895 Bx 238A, Hillsboro, KY 41049	110008362805
Maxey Flats Disposal Sites	KY 1895, Hillsboro, KY 41049	110045024442
Maxey Flats Final Closure Cap Project	KY 1895, Hillsboro, KY 41049	110063615333
Maxey Flats Nuclear Disposal	Maxey Flats Rd, Hillsboro, KY 41049	110009287654
Middlesex Sampling Plant (USDOE)	239 Mountain Ave, Middlesex, NJ 08846	110004189280
DOE – Monticello Mill Site	South Highway 191, Monticello, UT 84535	110008540383
Monticello Mill Tailings (USDOE)	T335, R23e, S31 – T335, R24e, S36, Monticello, Ut 84535	110061040369
Monticello Mill Tailings (USDOE)	Section 31-36, Township 335, Range 23e-24e, Monticello, Ut 84535	110020079715
Monticello Mill Tailings (USDOE)	7031 South Highway 191, Monticello, Ut 84535	110002153231
Mound Plant (USDOE)	1 Mound Rd, Miamisburg, Oh 45342	110071102151 110000850632
U.S. DOE Pinellas Plant	7887 Bryan Dairy Road, Suite 260, Largo, FL 33777	110000875465
Porewater Extraction And Management At The Rifle, Colorado, Disposal Site	NA, Rifle, CO 81650	110071727134
Rifle, Colorado, Disposal Site	NA, Rifle, CO 81650	110071444299
Riverton, WY, Processing Site – Alternate Water Supply System (AWSS) Upgrades Project	Rendezvous Road and Goes In Lodge Road, Riverton, WY 82501	110071903593
Rocky Flats Plant (USDOE)	Hwy 93 Between Golden & Boulder, Golden, CO 80402	110071101320 110041365545
Shiprock Disposal Site - Small Construction Activity and Water Treatment Unit and Associated Infrastructure at Shiprock Disposal Site	Uranium Boulevard, NM 87420	110071309960 110071952119
USDOE, Weldon Spring Chem Plant	7295 Highway 94 S, Weldon Spring, MO 63304	110017989569

Notes:

^a All information presented in this table is shown as represented in the EPA ECHO database.

^b Not all information presented in this table may be accurate to current site conditions and is in the process of being updated.

Abbreviation:

USDOE = U.S. Department of Energy

3.0 Environmental Management System (EMS)

LM implemented an Environmental Management System (EMS) in 2005 and maintains it to ensure that environmental statutory requirements are fulfilled. Beginning in 2009, LM has declared conformance of the EMS every three years, with the latest declaration in 2024. LM will continue to implement this unique EMS as a joint LM and LMSP program.

The EMS focuses on programmatic environmental compliance and sustainability. The Energy Management System (EnMS) developed in 2022 shares many of the same International Organization for Standardization (ISO) requirements, so in 2025 LM opted to incorporate it as a subset of the EMS. Currently LM's EnMS only applies to EISA Section 432 covered facilities, which requires federal agencies to identify covered facilities that constitute at least 75% of the agency's total facility energy use. See Section 4.5.1 for more details.

LM's EMS is a comprehensive system that incorporates life cycle environmental considerations into all aspects of the LM mission, including protecting human health and the environment, sustainably managing LM-owned land and assets, and reducing adverse environmental effects. The LM EMS uses the "plan, do, check, act" framework from ISO 14001:2015, *Environmental Management Systems — Requirements and Guidance for Use*, and is consistent with Integrated Safety Management System requirements in DOE Order 450.2, Chg 1 (MinChg), DOE Guide 450.4-1C *Integrated Safety Management System Guide*, and DOE Order 440.1-1B Chg 1 (Admin Chg), *Worker Safety and Health Program*.

During the calendar year LM maintained the existing scope of the EMS with a higher focus on meeting statutory environmental requirements.

- LM EMS and Quality Management System (QMS) staff conducted an internal assessment of the EMS, QMS, and EnMS and completed an annual management review.
- LM staff also updated the LM environmental and LM energy policies along with several manuals to align the EMS with current language, requirements, and drivers.
- LM documented annual EMS progress reporting for the EMS Facility Data Report in the DOE EMS Site Information Database and received a green score. Some of the best management practices LM identified and documented in the progress report include:
 - ↳ LM combines the EMS and QMS audit to save resources, budget, and time.
 - ↳ Environmental compliance staff review and brief field staff on compliance obligations during pre-job safety and readiness review meetings.

DOE Order 436.1A was cancelled in 2025; however, LM continues to use the EMS to ensure environmental compliance obligations are met and integrated with other business operations, which has helped LM remain violation free since 2011.

The EnMS provides benefits in the areas of energy optimization and operational efficiency. The implementation of the EnMS led to the development of goals related to continual energy reduction. As the EnMS evolves, additional opportunities are expected to arise to support integration with other business operations, much like the EMS.

The [LM EMS key documents public website](#) includes a detailed document of LM's significant environmental aspects, awards and recognition, and the most recent declaration of conformance.

Further details on progress towards efficient operations are documented in Section 4.5.

3.1 Accomplishments, Awards, and Recognition

In 2025, LM accomplished the following:

- LM developed a [public webpage](#) for the Dr. Modesto Iriarte Technology Museum at the BONUS, Puerto Rico, Decommissioned Reactor Site. The debut in December highlighted the webpage's multimedia and interactive elements such as video B-roll, oral history videos, 360-degree camera, USACE drone footage, history, and current long-term stewardship mission information.

- ⇒ LM deployed a prototype drone-based radiation detection system to assist the DOE Office of Fossil Energy and Carbon Management with detecting critical minerals in mine rock.
- ⇒ LM hosted trainings for Tribal partners at a triannual meeting, presenting safe operation of utility task vehicles and protective measurements from radiation.
- ⇒ LM hosted a public meeting in Shiprock, New Mexico, to discuss the proposed WTU project at the Shiprock site, address community concerns, and answer questions.
- ⇒ LM hosted two public meetings in Tuba City and Moenkopi village to inform and update the local community and stakeholders of current and planned site activities as well as address concerns and answer questions.
- ⇒ LM hosted a public meeting in Halchita, Utah, to provide site activity updates and address questions and concerns about the Monument Valley, Arizona, Processing Site and Mexican Hat, Utah, Disposal Site to the communities and stakeholders.
- ⇒ LM successfully transferred the last remaining parcel of government-owned land at the Mound site, marking a key milestone in the successful completion of LM's goal to return the Mound site to the public.
- ⇒ LM hosted the 21st Annual Community Meeting at the Fernald Preserve, where LM shared results and progress made on the site's ongoing groundwater remediation, monitoring, and community outreach efforts.
- ⇒ LM held the first annual virtual public meeting for the Rocky Flats Site, Colorado, where LM shared the highlights from the 2024 annual report and answered questions from the community.

LM received the following awards and recognitions for EMS-related activities in 2025:

- ⇒ LM received the Electronic Product Environmental Assessment Tool Purchaser Award for the 11th consecutive year. The Green Electronics Council awards organizations with this award for excellence in sustainable procurement of electronic equipment.

4.0 Environmental Non-Radiological Protection Program

This section discusses major environmental protection programs and efforts in place to ensure continued compliance with environmental obligations.

4.1 Environmental Non-Radiological Monitoring Program

Environmental non-radiological monitoring is conducted at most Category 2 and 3 LM sites. General monitoring of environmental media such as air, soil, surface water, and groundwater varies by site and is based on the regulatory framework and documented in the site's closure documents, such as Long-Term Surveillance Plans, LTS&M Plans, Groundwater Compliance Action Plans (GCAP), or CERCLA Records of Decision. See [LM Site Documents](#) for specific site regulatory framework and decision agreements outlining environmental monitoring requirements.

Environmental monitoring plans include data quality objectives, developed in accordance with internal quality assurance and quality control plans. The data quality objectives process assists project staff in defining the level of uncertainty associated with the results derived from environmental data. See Section 6.0 for more details.

Results of environmental monitoring are used to demonstrate compliance with standards, determine compliance strategies, and to ensure the integrity of previous remedial actions. LM sites with environmental monitoring reports available can be found in Table A-2. Also, see Section 2.8 for more details on natural resource monitoring in 2025 at LM sites.

Additional temporary environmental monitoring associated with projects and permits can also be established to ensure regulatory compliance with applicable federal, state, or Tribal requirements such as CWA permits, the ESA, wetland delineations, or waste determinations.

4.2 Unplanned Non-Radiological Reportable Releases

This section provides information on unplanned, nonroutine releases of pollutants or hazardous substances. Unplanned radiological releases are discussed in Section 5.4.

Table 4 provides a list of unplanned releases, such as spills or leaks, that occurred during the reporting period, including the date each release occurred, the amount of material released, and explanation of the release, reporting requirements, and corrective actions taken. There was only one release in 2025 above applicable reporting threshold volumes. Details can be found in the table below.

Table 4. Summary of Unplanned Non-Radiological Releases

Summary of Unplanned Non-Radiological Releases

LM Site	Release	Date of Release	Volume	Reporting Required?	Immediate or Corrective Actions
Fernald Preserve, Ohio, Site	Tractor hydraulic line break	1/7/2025	1 gallon		Absorbent product was spread to absorb spilled hydraulic oil.
Shiprock, New Mexico, Disposal Site	Water line strike	7/29/2025	25-50 gallons		Production wells deenergized to excavate and repair leak. Flow stopped to broken area of pipe and splice was installed. Production wells returned to service and splice was monitored for any leak-age. Flow reestablished with no leaks identified.

Table 4. Summary of Unplanned Non-Radiological Releases (continued)

LM Site	Release	Date of Release	Volume	Reporting Required?	Immediate or Corrective Actions
Rifle, Colorado, Disposal Site	Hydraulic fluid spill	11/5/2025	2 cups		The operator stopped the equipment and contained any further leaking. A spill kit was deployed for cleanup. Cleanup efforts and disposal of materials were completed by sub-contractor.
Fernald Preserve, Ohio, Site	Minor fuel leak on Fernald Site Geoprobe 7800 (newly refurbished)	12/1/2025	A very small quantity of fuel		The tank and gauge seal were inspected by Environmental Management, Safety and Health, and Quality Assurance (ESH&Q). Absorbent pad was placed against the tank to absorb any fuel that might drip.
Bluewater, New Mexico, Disposal Site	Drilling mud (mixture of fresh water, QuikGel, soda ash, QuikTrol Gold, EX Mud Gold, and Penetrol) released from a mud shaker container	12/10/2025	500 gallons	 Yes (7-day and 15-day report notification requirements were followed as outlined in New Mexico Administrative Code 20.6.2.1203.)	Corrective actions completed included placing released drilling mud into containers and transporting for off-site disposal at a New Mexico Environment Department (NMED) permitted solid waste disposal facility as special waste. After excavation work, the spill area was sampled and analyzed for constituents of concern and results indicated no exceedances for the analyzed metals of any NMED Soil Screening Levels.
Tuba City, Arizona, Disposal Site	Hydrochloric acid (Nu-Well NU-130) mixed with potable water sprayed out from the pump due to chemical incapability	12/19/2025	1 quart		Immediate actions included stopping source of leak, taking potentially affected personnel to a medical clinic, notifying DOE Headquarters Emergency Operations Center, and issuing a stop work order related to chemical well redevelopment activities. Hazardous waste cleanup was completed on-site on 12/19/2026. Hazardous waste removal was completed in February 2026. Investigation resulted in 12 corrective actions, which will be implemented in 2026.

Abbreviation:
NA = Not applicable.

4.3 Groundwater Protection Program

There are 46 LM sites (each geographic site location is counted as one site per the *LM Site Management Guide*) with groundwater protection programs that monitor chemical or radiological constituents. The groundwater protection programs in the LM program are complex, unique to each site, and vary depending on regulatory framework and state or location of the site. The monitoring requirements, number of wells, sampling frequency, and analytes of interest are site specific. For example, groundwater samples may be collected quarterly, semiannually, annually, or every two, three, five, or 10 years.

To meet the ASER reporting requirements, summary tables of LM's groundwater protection program were developed for this report and can be found in the appendix. Groundwater data for many LM sites can also be found at the [Geospatial Environmental Mapping System \(GEMS\)](#).

For this report, "active wells" are wells that are required to be sampled or monitored for some environmental purpose at some defined frequency as part of a groundwater monitoring network, as documented in the site-specific plan (such as a LTS&M Plan or GCAP). A site's groundwater monitoring network generally consists of additional wells, which are not reflected in the number of active wells. Additional wells may include piezometers (water level only wells), extraction, or background wells.

"Point of compliance (POC) wells" are a subset of active wells that are either identified in a site-specific plan or an exceedance at the location triggers some action as agreed on by LM and the regulator. There are 21 LM sites with POC wells.

Analytes of concern (AOCs) are specific chemicals, elements, compounds, or substances identified for measurement in a sample because they may pose a risk to human health or the environment. Wells sampled or monitored for parameters other than AOCs that are required by a site regulatory document are best-management-practice wells. Many sites have wells that are sampled or monitored for some LM identified purpose, but sampling is not required by a site regulatory document; these wells are not reported in the ASER.

Table A-4 in Appendix A summarizes the site-specific groundwater monitoring program for applicable LM sites.

Appendix A Table A-5 summarizes AOC exceedances at UMTRCA processing sites and D&D sites that have site-specific groundwater monitoring programs. This data is also publicly available at [GEMS](#).

Many LM sites' regulatory agreements require an annual site-specific environmental report. These reports include details on AOC exceedances, contaminant plume data, contaminant time-concentrations plots from which trending can be evaluated, and other details not discussed in this report. Tables A-2 and A-3 of this report show which types of reports a site is required to submit; however, not all reports are issued annually.

4.4 Natural Resource Conservation Programs and Projects

In addition to the actions taken under specific regulations, LM completed the following activities related to natural resource management in 2025:

- ❖ **Bluewater site:** A wildlife water drinking system was maintained and wildlife cameras were monitored to record its use. A pollinator study was conducted to follow annual studies that began in 2021. This site also supported a summer intern project for one of LM's Mentorship for Environmental Scholars interns to identify potential areas for a wetland enhancement project that would benefit multiple special-status species.
- ❖ **Fernald Preserve:** Approximately 525 bareroot trees and 270 container-grown trees and shrubs were planted to increase woody plant diversity, enhance successional development of restored areas, and decrease forest fragmentation. Additionally, LM closed the Federal Migratory Bird Special-Purpose Salvage Permit issued by USFWS and renewed the Scientific Collection Permit issued by the Ohio Department of Natural Resources. Both of these permits focus on wildlife educational purposes.
- ❖ **Ambrosia Lake, New Mexico, Site:** Pollinator counts were conducted and the site was surveyed for the presence of noxious weeds and biological control agents.
- ❖ **Edgemont site:** A Rangeland Health Assessment was completed, with the final report to be completed in 2026.

4.4.1 | Summary of Fire Protection Management and Planning

In 2021, LM began drafting an integrated LM-wide fire management plan consistent with BLM's *Federal Wildland Fire Management Policy*. Wildland fire management plans are in place for the LM sites listed below. These plans describe the current site-specific fire environment and fire prevention and mitigation strategies to meet the fire protection goals of DOE Order 420.1C Chg 3 (LtdChg), *Facility Safety*. This includes compliance with the following standards of the National Fire Protection Association (NFPA):

- NFPA 1143, *Standard for Wildland Fire Management*, published in 2018.
- NFPA 299, *Standard for Protection of Life and Property from Wildfire*, published in 1997.

Wildland fire management strategies include the use of fire protection equipment, vegetation management, site access controls, job safety analyses or procedures, and prescribed burns.

LM sites with wildland fire management plans include the following:

- ◊ Fernald Preserve
- ◊ GJDS
- ◊ Monticello site
- ◊ Rocky Flats Site
- ◊ Tuba City site
- ◊ Weldon Spring Site

Although unoccupied sites generally do not have wildland fire management plans because work is performed at these sites infrequently, wildland fire hazards and controls are addressed in wildland fire management plans and Safety and Health documents, such as the *Job Safety Analysis* form. It is recognized that fires may occur when no one is on-site to make initial notifications or to give information to responders. Signs posted at unoccupied sites include a 24-hour telephone number so information can be reported.

The DOE Emergency Management Watch Office provides a daily hazard summary, which includes fire reports, that is distributed to LM site managers, LMSP site leads, and other interested internal parties. The summary reports any wildfire that occurs within 20 miles of an LM site (excluding DRUM program sites) and notes the fire size, fire discovery date and cause, and percent contained.

Safety and Health personnel monitor the areas affected by wildfire smoke to reduce health risks for employees performing field work. If wildfire smoke decreases visibility to less than 5 miles in the working area or if workers have respiratory complications due to smoke inhalation, work is paused and employees are instructed to leave the area and contact the lead safety supervisor or technical manager for direction.

LM Emergency Management and site management staff developed an Interagency Assistance Agreement with USFS to plan and conduct prescribed burns. LM staff are not allowed near the fire environment unless they are qualified through the [National Wildfire Coordinating Group](#) standards and have a "red card" issued by the Incident Qualification and Certification System or if they are escorted by qualified fire personnel in accordance with National Wildfire Coordinating Group standards.

Wildland fire management activities in 2025 included reduced combustible vegetation and improved defensible space around key infrastructure at the Monticello site. Work included thinning dense shrub cover south and west of the disposal cell, removing woody vegetation near the evaporation pond and outside the disposal cell boundary road, and establishing shrub-free firebreaks around site infrastructure. Disturbed areas were subsequently reseeded with low-growing native grasses and herbaceous vegetation to help reduce future wildfire risk and support long-term stability.

4.5 Efficient Operations

In addition to the requirements mentioned throughout this document, environmental compliance and sustainability subject matter experts worked on ensuring LM's compliance with the following requirements as they pertain to efficient operations:

Table 5. Environmental Compliance and Sustainability Requirements

Environmental Compliance and Sustainability Requirements

Area of Focus	Statutory Requirement
Water Efficiency New/Major Renovation Building Design	EISA 2007 Section 432, Energy Independence and Security Act of 2007 — Management of energy and water efficiency in federal buildings 42 USC 6834 Energy Conservation and Resource Renewal
Solid Waste Sent to Landfills Solid Waste Composted, Recycled, Reused Construction and Demolition Debris	42 USC 6901, Solid Waste Disposal
Fugitives and Refrigerants	42 USC 7675, Air Pollution Prevention and Control — American Innovation and Manufacturing
Energy Efficiency Federal Energy and Water Metering Non-Fleet Fuel Waste Water Treatment	42 USC 8253, National Energy Conservation Policy — Federal Energy Management
Electronic Acquisition, Operation, and End of Life	42 USC 8259b, Federal Energy Management — Federal procurement of energy efficient products
Energy Manager Training	42 USC 8262c, Federal agency management training
On-Site Generated Electricity Systems	42 USC 15852, National Energy Policy and Programs
Energy Reduction	EISA 2007 Sec. 431, Energy Independence and Security Act of 2007 — Energy reduction goals for federal buildings

4.5.1 | Energy and Water Efficiency Programs

DOE must report annually on compliance with legislation requiring energy and water efficiency and reduction of energy costs. Sites report data and narratives on their progress toward meeting energy and water requirements through DOE's Energy and Water Dashboard.

- LM continued to collect and report energy and water use data in the DOE Energy and Water Dashboard.
- LM completed the annual Energy and Water Use Narrative to compare annual changes in energy and water use. The following details were reported in the narrative:
 - ↳ LM calculated the change in energy use intensity from FY 2024 to FY 2025 to be an increase of 2.1%; however, this was largely due to recategorizing previously excluded buildings.
 - ↳ LM calculated a 40% decrease in water use from FY 2024 to FY 2025. This was largely due to a repair in the irrigation system at the Weldon Spring Site. Historically, LM's water use can vary widely from year to year based on project needs.
- In 2025, LM completed EISA Section 432 water evaluations at the GJDS and EISA Section 432 energy evaluations at the Monticello and Shiprock sites.

4.5.2 | Strategic Acquisition

Multiple acts of Congress require the federal government to use its purchasing power to reduce the negative effects on the environment and promote energy efficiency. Federal agencies are required to consider purchasing products that are energy and water efficient and made from biobased, recycled, and non-ozone depleting substances.

LM has integrated these requirements into procurement processes, contract awards, fleet requirements, and facility operations to ensure full compliance.

4.5.3 | Site Resilience

Resilience is the ability to prepare for and withstand an extreme natural or human-made event such as wildfire, hurricane, tornado, earthquake, blizzard, heat wave, power outage, or cyber attack with little or no damage or to recover more quickly from an extreme event. Like many federal agencies, DOE is faced with the challenge of strengthening its resilience to a growing number of hazards. Making sites more resilient makes them capable of withstanding more frequent and severe hazards, minimizes the impact of extreme events, and enables sites to quickly return to normal operations.

As part of LM's continuity program, LM assesses the risks of extreme weather events on the continuity of LM operations. This allows LM to meet the intent of DOE Order 150.1B, *Continuity Programs*, by having the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

4.5.4 | Sustainable Resilient Remediation

Sustainable resilient remediation uses methods to contain, remove, or destroy contaminants that meet cleanup compliance obligations at lower overall cost and environmental impact. In 2025, no LM sites had sustainable resilient remediation.

5.0 Environmental Radiation Protection Program

LM's Radiation Protection Program (RPP) ensures that radiological operations at LM sites and facilities protect employees, the public, and the environment, which is implemented with various internal documents (such as plans and manuals) of the RPP. The purpose of the RPP is to carry out the requirements of 10 CFR 835, "[Occupational Radiation Protection](#)," and DOE Order 458.1 Chg 5 (LtdChg), *Radiation Protection of the Public and the Environment*.

LM uses the RPP at applicable LM sites to ensure that radiation exposure to workers and the public and releases of radioactivity to the environment are below regulatory limits. LM's RPP also ensures that work is done in accordance with the following laws.

AEA: The purpose of the AEA is to ensure the proper management of source, special nuclear, and byproduct material. The AEA and the statutes amending it give the control of nuclear energy primarily to DOE, NRC, and EPA. DOE established LM to ensure that DOE's post-closure responsibilities are met and to provide DOE programs for LTS&M, records management, workforce restructuring and benefits continuity, property management, land-use planning, and community assistance.

UMTRCA: As discussed in Section 1.4.8, LM manages UMTRCA Title I and Title II sites, including inspection, monitoring, and maintenance. Plans and reports that summarize UMTRCA activities are described below:

- Requirements for inspections, monitoring, and maintenance are specified in site specific Long-Term Surveillance Plans, LTS&M Plans, and GCAPs, as applicable, all of which are reviewed and agreed to by NRC (see Tables A-2 and A-3).
- Two LM-wide inspection and monitoring reports are compiled and submitted annually to NRC. These reports present the results of LTS&M activities at each of the UMTRCA sites as part of the general license requirements. These two reports are available on the [LM Guidance, Reports, and Documents webpage](#).
 - ↳ [Annual Site Inspection and Monitoring Report Uranium Mill Tailings Radiation Control Act Title I Disposal Sites](#), March 2026
 - ↳ [2025 Annual Site Inspection and Monitoring Report Uranium Mill Tailings Radiation Control Act Title II Sites](#), December 2025

5.1 Environmental Radiological Monitoring

DOE Order 458.1 Chg 5 (Admin Chg), *Radiation Protection of the Public and the Environment*, lays out requirements to protect the public and the environment against undue risk from radiation from radiological work that was done under DOE control.

- LM implements an internal environmental radiation protection program plan to ensure that work involving radiological hazards complies with the requirements of DOE Order 458.1 Chg 5 (Admin Chg). The processes and measures are tailored to LM work and reflect a graded approach that matches the hazard or risk to the public and the environment.
- LM and LMSP held two semiannual radiological program meetings in 2025 to discuss upcoming radiological work, radiological exposure control consideration, and identification of potential environmental and public impacts.

5.2 Radiological Discharges and Doses

DOE Order 458.1 Chg 5 (Admin Chg) requires reporting of collective doses to the public around DOE sites, as well as radiation doses to the representative person or the maximally exposed individual. LM did not have any radiological discharges or doses in 2025.

5.3 Clearance of Property Containing Residual Radioactivity

This section summarizes the real and personal property clearance activities for LM, including application of authorized limits, type of material or property, and expected end-use scenario.

The clearance of property from an LM site or project location is done in accordance with an internal radiological control manual. LM does not release property to the public, such as vehicles, equipment, or other materials, with residual radioactivity above the authorized limits. LM updated its manual to include additional guidance for releasing real and personal property in accordance with DOE Standard DOE-STD-1241-2023, *Implementing Release and Clearance of Property Requirements*.

The DOE-owned real property released from LM sites, offices, or facilities in 2025 was part of the Mound site. The transfer of the remainder of Parcel 9, which included Operable Unit 1, from DOE to the city of Miamisburg was completed on September 26, 2025.

The only DOE-owned personal property and contractor- and subcontractor-owned personal property (not real property) released or cleared from LM radiologically controlled areas in 2025 included mostly general materials, equipment, and instruments used during routine work around the LM complex and larger haul-and-place equipment (such as trucks and dozers) used during the placement of uranium mill tailings at the GJDS. DOE preapproved authorized limits used to release and clear the materials, equipment, and instruments include surface contamination limits in 10 CFR 835, Appendix D, and total residual volumetric activity in DOE-STD-1241-2023, Table 2.

5.4 Unplanned Radiological Releases

LM had no unplanned radiological releases in 2025.

6.0 Quality Assurance and Oversight

LM and LMSP have implemented a QMS program that includes both Quality Assurance (QA) and Quality Control activities and provides reasonable assurance that work consistently meets or exceeds mission goals while keeping potential hazards to the environment, the public, and workers as low as possible. The QMS includes the requirements of DOE Order 414.1E, *Quality Assurance*, using ISO 9001:2015, *Quality Management Systems — Requirements*, as the chosen international standard. Other implementing internal documents include a policy, plan, and manual focusing on quality management.

In addition, LM has implemented a contractor oversight program that plans and monitors responsible contracts for compliance and effectiveness. Similarly, LMSP has implemented a Contractor Assurance System (CAS) that provides internal assurance and oversight over processes and outputs, including those performed by subcontractors.

6.1 Oversight

6.1.1 | Program and Contractor Oversight

LM performs oversight of its programs, processes, and contractors as required by DOE Order 226.1B Chg 1 (Admin Chg), *Implementation of Department of Energy Oversight Policy*, through an internal oversight procedure. LM's oversight processes make sure that programs are achieving their intended results in a safe, compliant, and efficient manner. Similarly, LMSP maintains the CAS to manage contractor performance in accordance with contract requirements.

The QMS, in conjunction with the CAS, ensures that requirements are identified and integrated into LM procedures and work is adequately described in documents such as statements of work, project-specific work plans, procedures, and other documented control measures.

Assessments are performed to confirm compliance and evaluate LMSP contractor performance. They are planned and recorded on an annual schedule, and identified issues are tracked in the Assessment and Issue Management System.

The annual assessment schedule includes:

- External assessments conducted by DOE, program sponsors, other regulatory agencies, corporate personnel, and external agencies to ensure management systems are adequately implemented.
- Independent assessments, generally conducted by QA and Performance Assurance staff independent of the area or function being assessed.
- Management assessments conducted by LM or LMSP staff as self-assessments and surveillances.
- Surveillances generally conducted by QA and Performance Assurance staff to observe field-, site-, facility-, equipment-, or property-related work being performed in real time.

6.1.2 | Sampling and Data Oversight

The QMS includes processes for identifying and controlling items and equipment for sampling control and analysis. Additional site-specific requirements for sampling activities at LM sites are defined in site-specific or program-specific Quality Assurance Project Plans (QAPPs) or Sampling and Analysis Plans (SAPs) or in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*, also called the LM SAP.

Soil and surface water samples from the DRUM program are collected, managed, and analyzed in accordance with internal DRUM quality assurance program plans along with the *Defense-Related Uranium Mines Verification and Validation Work Plan Campaign 1* for program work on public lands, the *Defense Related Uranium Mines Verification and Validation Work Plan Campaign 2: Navajo Nation* for work on Navajo Nation land, and the *Defense-Related Uranium Mines Verification and Validation Work Plan Campaign 3* on private lands. These documents provide detailed procedures for sampling environmental media consistently and in a technically defensible manner. These procedures are reviewed and updated as needed to ensure the most up-to-date processes are used.

Guidelines for evaluating sample collection and field measurement work against site and program-specific requirements found in QAPPs and the LM SAP are detailed in internal environmental data validation procedures. Environmental data is validated to determine whether data meets the specific technical and quality criteria from the applicable quality system documents and to establish the usability and extent of bias of any data not meeting those criteria. Validation can include evaluation of all work impacting data quality. Field quality assurance processes include:

- ⇒ Completing training and qualification programs
- ⇒ Following QAPPs, SAPs, procedures, or the LM SAP
- ⇒ Collecting and analyzing quality control samples, including field duplicates, equipment blanks, and trip blanks
- ⇒ Reviewing field documentation
- ⇒ Performing independent surveillances of field work by QA and Performance Assurance staff
- ⇒ Inspecting and maintaining monitoring wells

LM uses contracted analytical laboratories that participate in the DOE Consolidated Audit Program or the Mixed Analyte Performance Evaluation Program to analyze environmental samples. LM does not independently assess contracted analytical labs. Table 6 lists all contracted analytical laboratories used in 2025.

Table 6. Contracted Analytical Laboratories

Laboratory	Location
ARS International, LLC	2609 North River Road Port Allen, LA 70767
Eurofins TestAmerica	4995 Yarrow Street Arvada, CO 80002
	13715 Rider Trail North Earth City, MO 63045
	880 Riverside Parkway West Sacramento, CA 95605
Galbraith Laboratories	2323 Sycamore Drive, Knoxville, TN 37921
GEL Laboratories LLC	2040 Savage Road Charleston, SC 29407
Lawrence Berkeley National Laboratory	1 Cyclotron Road Berkeley, CA 94720
Microbial Insights	10505 Research Drive, Knoxville, TN 37932
Purdue Rare Isotope Measurement Laboratory	525 Northwestern Avenue, West Lafayette, IN 47907
Reston Stable Isotope Laboratory	12201 Sunrise Valley Drive Mail Stop 431 Reston, VA 20192



References

- 10 CFR 40. "Domestic Licensing of Source Material," *Code of Federal Regulations*.
- 10 CFR 835. "Occupational Radiation Protection," *Code of Federal Regulations*.
- 10 CFR 851. "Worker Safety and Health Program," *Code of Federal Regulations*.
- 10 CFR 1022. "Compliance with Floodplain and Wetland Environmental Review Requirements," *Code of Federal Regulations*.
- 40 CFR 60, Subpart IIII. "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," *Code of Federal Regulations*.
- 40 CFR 60, Subpart JJJJ. "Standards of Performance for Stationary Spark Ignition Internal Combustion Engines," *Code of Federal Regulations*.
- 40 CFR 61, Subpart H. "National Emission Standards for Emissions of Radionuclides Other Than Radon from Department of Energy Facilities," *Code of Federal Regulations*.
- 40 CFR 61, Subpart Q. "National Emission Standards for Radon Emissions From Department of Energy Facilities," *Code of Federal Regulations*.
- 40 CFR 61, Subpart T. "National Emission Standards for Radon Emissions From the Disposal of Uranium Mill Tailings," *Code of Federal Regulations*.
- 40 CFR 63, Subpart ZZZZ. "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines," *Code of Federal Regulations*.
- 40 CFR 112. "Oil Pollution Prevention," *Code of Federal Regulations*.
- 40 CFR 262, Subpart L. "Alternative Standards for Episodic Generation," *Code of Federal Regulations*.
- 7 USC 136 et seq. "Federal Insecticide, Fungicide, and Rodenticide Act," *United States Code*.
- 7 USC 7701 et seq. "Plant Protection Act of 2000," *United States Code*.
- 15 USC 2601 et seq. "Toxic Substances Control Act," *United States Code*.
- 16 USC 703 et seq. "Migratory Bird Treaty Act," *United States Code*.
- 16 USC 1531 et seq. "Endangered Species Act of 1973," *United States Code*.
- 33 USC 1251 et seq. "Clean Water Act," *United States Code*.
- 42 USC 300f et seq. "Safe Drinking Water Act," *United States Code*.
- 42 USC 2011 et seq. "Atomic Energy Act of 1954," *United States Code*.
- 42 USC 4321 et seq. "National Environmental Policy Act of 1969," *United States Code*.
- 42 USC 6834. "Federal Building Energy Efficiency Standards," *United States Code*.

- 42 USC 6901 et seq. "Resource Conservation and Recovery Act," *United States Code*.
- 42 USC 7401 et seq. "Clean Air Act," *United States Code*.
- 42 USC 7675. "American Innovation and Manufacturing Act of 2020," *United States Code*.
- 42 USC 7901 et seq. "Uranium Mill Tailings Radiation Control Act of 1978," as amended, *United States Code*.
- 42 USC 8253. "Energy Management Requirements," *United States Code*.
- 42 USC 8259b. "Federal Procurement of Energy Efficient Products," *United States Code*.
- 42 USC 8262c "Federal Agency Energy Management Training," *United States Code*.
- 42 USC 9601 et seq. "Comprehensive Environmental Response, Compensation, and Liability Act," *United States Code*.
- 42 USC 10171. "Nuclear Waste Policy Act of 1982," *United States Code*.
- 42 USC 11001 et seq. "Emergency Planning and Community Right-to-Know Act of 1986," *United States Code*.
- 42 USC 15852. "Federal Purchase Requirement," *United States Code*.
- 54 USC 300101 et seq. "National Historic Preservation Act," *United States Code*.
- BLM (U.S. Bureau of Land Management), 2000. *Federal Wildland Fire Management Policy*.
- California Regional Water Quality Control Board Colorado River Basin Region Order 89-027, *Waste Discharge Requirements for United States Department of Energy Geothermal Test Facility*, 1989.
- DOE (U.S. Department of Energy), 2022a. [*Initial Assessment of Per- and Polyfluoroalkyl Substances at Department of Energy Sites*](#), October.
- DOE (U.S. Department of Energy), 2022b. [*PFAS Strategic Roadmap: DOE Commitments to Action 2022–2025*](#), Office of Legacy Management, August.
- DOE (U.S. Department of Energy), 2025. Defense-Related Uranium Mines Verification and Validation Work Plan Campaign 1, LMS/DRM/S13690-4.0, Office of Legacy Management, July.
- DOE (U.S. Department of Energy), 2025. Defense-Related Uranium Mines Verification and Validation Work Plan Campaign 2: Navajo Nation, LMS/DRM/41156-0.6, Office of Legacy Management, February.
- DOE (U.S. Department of Energy), 2025. [*Defense-Related Uranium Mines Verification and Validation Work Plan Campaign 3*](#), LMS/DRM/45113-0.4, Office of Legacy Management, April.
- DOE (U.S. Department of Energy), 2025. Defense-Related Uranium Mines Safeguarding Program Management Plan, LMS/DRM/41156-0.6, Office of Legacy Management, February.
- DOE (U.S. Department of Energy), 2025. [*Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*](#), LMS/PRO/S04351-17.0, August.

- DOE (U.S. Department of Energy), 2025. *Site Management Guide*, LM-Guide-3-20.0-1.0-20.14, Office of Legacy Management, September.
- DOE (U.S. Department of Energy), 2025. *Summary of Annual Site Environmental Reports Calendar Year 2024*, LMS/S14598, Office of Legacy Management, September.
- DOE (U.S. Department of Energy), 2026. *Guidance for the Preparation of the 2025 Department of Energy Annual Site Environmental Reports*, Office of Environment, Health, Safety and Security, February.
- DOE (U.S. Department of Energy), 2026. *DOE Uranium Leasing Program Annual Status and Activities Report for Calendar Year 2025*, <https://www.energy.gov/lm/uranium-leasing-program>, LMS/ULP/53220, Office of Legacy Management, March.
- DOE (U.S. Department of Energy), *BONUS (Boiling Nuclear Superheater), Puerto Rico, Site: History, Community, Stewardship*, <https://cdn.lm.doe.gov/ics/BONUS/home/>. Accessed June 3, 2026.
- DOE Guide 450.4-1C, *Integrated Safety Management System Guide*, September 29, 2011.
- DOE Order 150.1B, *Continuity Programs*, U.S. Department of Energy, December 21, 2021.
- DOE Order 226.1B Chg 1 (Admin Chg), *Implementation of Department of Energy Oversight Policy*, U.S. Department of Energy, May 3, 2022.
- DOE Order 231.1B Chg 1 (Admin Chg), *Environment, Safety, and Health Reporting*, U.S. Department of Energy, November 28, 2012.
- DOE Order 450.2, Chg 1 (Minchg), *Integrated Safety Management*, U.S. Department of Energy, January 17, 2017.
- DOE Order 414.1E, *Quality Assurance*, U.S. Department of Energy, December 18, 2024.
- DOE Order 420.1C Chg 3 (LtdChg), *Facility Safety*, U.S. Department of Energy, November 14, 2019.
- DOE Order 435.1 Chg 2 (Admin Chg), *Radioactive Waste Management*, U.S. Department of Energy, January 11, 2021.
- DOE Order 436.1A, *Departmental Sustainability*, U.S. Department of Energy, April 25, 2023. (Cancelled by DOE Notice 251.128, January 30, 2025)
- DOE Order 440.1-1B Chg 1 (Admin Chg), *Worker Safety and Health Program for DOE (Including the National Nuclear Security Administration) Federal and Contractor Employees*, U.S. Department of Energy, March 22, 2013.
- DOE Order 458.1 Chg 5 (Admin Chg), *Radiation Protection of the Public and the Environment*, U.S. Department of Energy, January 30, 2025.
- DOE Standard DOE-STD-1241-2023, *Implementing Release and Clearance of Property Requirements*, U.S. Department of Energy, March 1, 2023.
- EO (Executive Order) 11988. *Floodplain Management*, May 24, 1977.

EO (Executive Order) 11990. *Protection of Wetlands*, May 24, 1977.

EO (Executive Order) 13186. *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10, 2001.

EO (Executive Order) 13751. *Safeguarding the Nation from the Impacts of Invasive Species*, December 5, 2016.

EPA (U.S. Environmental Protection Agency), 2025b. "Enforcement and Compliance History Online," <https://echo.epa.gov>, accessed November 4, 2025.

GSA Order PBS 1000.7A, *Drinking Water Quality Management*, U.S. General Services Administration, November 16, 2023.

ISO 9001:2015. *Quality Management Systems*, International Organization for Standardization.

ISO 14001:2015. *Environmental Management Systems — Requirements and Guidance for Use*, International Organization for Standardization.

National Wildlife Coordinating Group, <https://www.nwccg.gov/>. Accessed June 2, 2026.

Navajo Nation, Division of Natural Resources, Department of Fish and Wildlife, 2020. *Navajo Endangered Species List (Resources Committee Resolution No. RDCJA-01-20)*.

NFPA 299. *Standard for Protection of Life and Property from Wildfire*, National Fire Protection Association, 1997 edition.

NFPA 1143. *Standard for Wildland Fire Management*, National Fire Protection Association, 2018 edition.

PL 102-386. "Federal Facility Compliance Act of 1992," Public Law.

PL 110-140. "Energy Independence and Security Act," Public Law.

PL 116-260. "Consolidated Appropriations Act, 2021," Public Law.

USFWS (U.S. Fish and Wildlife Service), *Information for Planning and Consultation online tool*, <https://www.fws.gov/service/information-planning-and-consultation>. Accessed June 2, 2026.

Appendix A

Legacy Management Sites and Related Reports and Summary of Groundwater Monitoring Program

Table A-1. Category 1 Sites with Links to the LM Public Website
(Typically involves records-related activities and stakeholder support)

CERCLA/RCRA Sites

Bayo Canyon, NM, Site (Bayo Canyon Aggregate Area)^a

<https://www.energy.gov/lm/bayo-canyon-new-mexico-aggregate-area-and-fusrap-sites>

Maxey Flats, KY, Disposal Site <https://www.energy.gov/lm/maxey-flats-kentucky-disposal-site>

FUSRAP Sites

Acid/Pueblo Canyon, NM, Site <https://www.energy.gov/lm/acidpueblo-canyon-new-mexico-site>

Adrian, MI, Site <https://www.energy.gov/lm/adrian-michigan-site>

Albany, OR, Site <https://www.energy.gov/lm/albany-oregon-site>

Aliquippa, PA, Site <https://www.energy.gov/lm/aliquippa-pennsylvania-site>

Attleboro, MA, Site <https://www.energy.gov/lm/attleboro-massachusetts-site>

Bayo Canyon, NM, Site (Bayo Canyon)

<https://www.energy.gov/lm/bayo-canyon-new-mexico-aggregate-area-and-fusrap-sites>

Berkeley, CA, Site <https://www.energy.gov/lm/berkeley-california-site>

Beverly, MA, Site <https://www.energy.gov/lm/beverly-massachusetts-site>

Buffalo, NY, Site <https://www.energy.gov/lm/buffalo-new-york-site>

Chicago North, IL, Site <https://www.energy.gov/lm/chicago-north-illinois-site>

Chicago South, IL, Site <https://www.energy.gov/lm/chicago-south-illinois-site>

Chupadera Mesa, NM, Site <https://www.energy.gov/lm/chupadera-mesa-new-mexico-site>

Columbus East, OH, Site <https://www.energy.gov/lm/columbus-east-ohio-site>

Fairfield, OH, Site <https://www.energy.gov/lm/fairfield-ohio-site>

Granite City, IL, Site <https://www.energy.gov/lm/granite-city-illinois-site>

Hamilton, OH, Site <https://www.energy.gov/lm/hamilton-ohio-site>

Indian Orchard, MA, Site <https://www.energy.gov/lm/indian-orchard-massachusetts-site>

Jersey City, NJ, Site <https://www.energy.gov/lm/jersey-city-new-jersey-site>

Madison, IL, Site <https://www.energy.gov/lm/madison-illinois-site>

New Brunswick, NJ, Site <https://www.energy.gov/lm/new-brunswick-new-jersey-site>

New York, NY, Site <https://www.energy.gov/lm/new-york-new-york-site>

Niagara Falls Storage Site Vicinity Properties, NY, Site

<https://www.energy.gov/lm/niagara-falls-storage-site-vicinity-properties-new-york-site>

Oak Ridge, TN, Warehouses Site <https://www.energy.gov/lm/oak-ridge-tennessee-warehouses-site>

Oxford, OH, Site <https://www.energy.gov/lm/oxford-ohio-site>

Painesville, OH, Site <https://www.energy.gov/lm/painesville-ohio-site>

Seymour, CT, Site <https://www.energy.gov/lm/seymour-connecticut-site>

Springdale, PA, Site <https://www.energy.gov/lm/springdale-pennsylvania-site>

Toledo, OH, Site <https://www.energy.gov/lm/toledo-ohio-site>

Tonawanda, NY, Site <https://www.energy.gov/lm/tonawanda-new-york-site>

Table A-1. Category 1 Sites with Links to the LM Public Website (continued)

FUSRAP Sites

Tonawanda North, NY, Site Unit 1 <https://www.energy.gov/lm/tonawanda-north-new-york-site-unit-1>
 Tonawanda North, NY, Site Unit 2 <https://www.energy.gov/lm/tonawanda-north-new-york-site-unit-2>
 Wayne, NJ, Site <https://www.energy.gov/lm/wayne-new-jersey-site>
 Windsor, CT, Site <https://www.energy.gov/lm/windsor-connecticut-site>

MED/AEC Legacy Sites

Ashtabula, OH, Site <https://www.energy.gov/lm/ashtabula-ohio-site>
 Center for Energy and Environmental Research, PR, Site
<https://www.energy.gov/lm/center-energy-and-environment-research-ceer-puerto-rico-sites>
 Columbus, OH, Site <https://www.energy.gov/lm/columbus-ohio-sites>
 El Verde, PR, Site <https://www.energy.gov/lm/el-verde-puerto-rico-site>
 General Atomics Hot Cell Facility, CA, Site <https://www.energy.gov/lm/general-atomics-hot-cell-facility-california-site>
 Inhalation Toxicology Laboratory, NM, Site
<https://www.energy.gov/lm/inhalation-toxicology-laboratory-new-mexico-site>
 Missouri University Research Reactor, MO, Site
<https://www.energy.gov/lm/missouri-university-research-reactor-murr-missouri-site>
 Oxnard, CA, Site <https://www.energy.gov/lm/oxnard-california-site>
 Vallecitos Nuclear Center, CA, Site <https://www.energy.gov/lm/vallecitos-nuclear-center-california-site>

State Water Quality Standards Site

Geothermal Test Facility, CA, Site <https://www.energy.gov/lm/geothermal-test-facility-california-site>

PVW Sites

Plowshare/Vela Uniform Records, Colorado, Sites^b <https://www.energy.gov/lm/plowsharevela-uniform-records-colorado-sites>
 Pre-Gondola and Trencher, MT, Site <https://www.energy.gov/lm/pre-gondola-and-trencher-montana-site>
 Pre-Schooner II, ID, Site <https://www.energy.gov/lm/pre-schooner-ii-idaho-site>
 Utah, Utah, Site <https://www.energy.gov/lm/utah-utah-site>

Notes:

The table is aligned with the September 2025 *Site Management Guide* (site categories may have changed or been updated in subsequent versions).

^a This site follows the CERCLA process but is not on the National Priorities List. For this site, the equivalent to a CERCLA FYR is the Long-Term Periodic Review Report.

^b This group represents 165 individual projects but is counted as a single site in the LM *Site Management Guide*.

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations
(Typically involves routine inspection and maintenance, records-related activities, and stakeholder support)

Site Name	Type of Data Collected					Where Data Are Reported					
	Inspection	Groundwater and/or Surface Water Monitoring	Production Water or Gas Monitoring	Chemical Inventory ^a	Other Environmental Monitoring (biological, soil, etc.)	Site Inspection Report	CERCLA Five-Year Review Report	Annual Site Inspection and Monitoring Report for UMRCA Title I or Title II Sites	Environmental Monitoring Report ^b	EPCRA Report ^c	GEMS ^c
CERCLA/RCRA Sites											
Laboratory for Energy-Related Health Research, CA, Site https://www.energy.gov/lm/laboratory-energy-related-health-research-lehr-california-site	✓	✓				✓	✓		✓		✓
Mound, OH, Site https://www.energy.gov/lm/mound-ohio-site	✓	✓			✓	✓	✓		✓		✓
Pinellas County, FL, Site https://www.energy.gov/lm/pinellas-county-florida-site	✓	✓		✓		✓			✓		✓
UMTRCA Sites											
Ambrosia Lake, NM, Disposal Site https://www.energy.gov/lm/ambrosia-lake-new-mexico-disposal-site	✓	✓						✓			✓
Bluewater, NM, Disposal Site https://www.energy.gov/lm/bluewater-new-mexico-disposal-site	✓	✓			✓			✓			✓
Burrell, PA, Disposal Site https://www.energy.gov/lm/burrell-pennsylvania-disposal-site	✓	✓						✓			✓
Canonsburg, PA, Disposal Site https://www.energy.gov/lm/canonsburg-pennsylvania-disposal-site	✓	✓						✓			✓
Durango, CO, Processing Site https://www.energy.gov/lm/durango-colorado-disposal-and-processing-sites		✓							✓		✓
Durango, CO, Disposal Site https://www.energy.gov/lm/durango-colorado-disposal-and-processing-sites	✓	✓						✓	✓		✓
Edgemont, SD, Disposal Site https://www.energy.gov/lm/edgemont-south-dakota-disposal-site	✓							✓			
Falls City, TX, Disposal Site https://www.energy.gov/lm/falls-city-texas-disposal-site	✓	✓						✓			✓
Green River, UT, Disposal Site https://www.energy.gov/lm/green-river-utah-disposal-site	✓	✓						✓			✓

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations (continued)

Site Name	Type of Data Collected					Where Data Are Reported					
	Inspection	Groundwater and/or Surface Water Monitoring	Production Water or Gas Monitoring	Chemical Inventory ^a	Other Environmental Monitoring (biological, soil, etc.)	Site Inspection Report	CERCLA Five-Year Review Report	Annual Site Inspection and Monitoring Report for UMTCA Title I or Title II Sites	Environmental Monitoring Report ^b	EPCRA Report ^c	GEMS ^c
UMTRCA Sites											
Gunnison, CO, Processing Site https://www.energy.gov/lm/gunnison-colorado-disposal-and-processing-sites		✓							✓		✓
Gunnison, CO, Disposal Site https://www.energy.gov/lm/gunnison-colorado-disposal-and-processing-sites	✓	✓						✓			✓
Lakeview, OR, Processing Site https://www.energy.gov/lm/lakeview-oregon-disposalprocessing-sites		✓									✓
Lakeview, OR, Disposal Site https://www.energy.gov/lm/lakeview-oregon-disposalprocessing-sites	✓	✓			✓			✓			✓
L-Bar, NM, Disposal Site https://www.energy.gov/lm/l-bar-new-mexico-disposal-site	✓	✓			✓			✓			✓
Lowman, ID, Disposal Site https://www.energy.gov/lm/lowman-idaho-disposal-site	✓							✓			
Maybell, CO, Disposal Site https://www.energy.gov/lm/maybell-colorado-disposal-site	✓							✓			
Maybell West, CO, Disposal Site https://www.energy.gov/lm/maybell-west-colorado-disposal-site	✓							✓			
Mexican Hat, UT, Disposal Site https://www.energy.gov/lm/mexican-hat-utah-disposal-site	✓				✓			✓			✓
Monument Valley, AZ, Processing Site https://www.energy.gov/lm/monument-valley-arizona-processing-site		✓			✓				✓		✓
Naturita, CO, Processing Site https://www.energy.gov/lm/naturita-colorado-disposal-and-processing-sites		✓							✓		✓
Naturita, CO, Disposal Site https://www.energy.gov/lm/naturita-colorado-disposal-and-processing-sites	✓							✓			✓

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations (continued)

Site Name	Type of Data Collected					Where Data Are Reported					
	Inspection	Groundwater and/or Surface Water Monitoring	Production Water or Gas Monitoring	Chemical Inventory ^a	Other Environmental Monitoring (biological, soil, etc.)	Site Inspection Report	CERCLA Five-Year Review Report	Annual Site Inspection and Monitoring Report for UMTCA Title I or Title II Sites	Environmental Monitoring Report ^b	EPCRA Report ^c	GEMS ^c
UMTRCA Sites											
Rifle, CO, Processing (Old) Site https://www.energy.gov/lm/rifle-colorado-disposal-site-and-processing-sites		✓							✓		✓
Rifle, CO, Processing (New) Site https://www.energy.gov/lm/rifle-colorado-disposal-site-and-processing-sites		✓							✓		✓
Rifle, CO, Disposal Site https://www.energy.gov/lm/rifle-colorado-disposal-site-and-processing-sites	✓				✓			✓		✓	✓
Riverton, WY, Processing Site https://www.energy.gov/lm/riverton-wyoming-processing-site		✓							✓		✓
Salt Lake City, UT, Processing Site https://www.energy.gov/lm/salt-lake-city-utah-disposal-and-processing-sites											✓
Salt Lake City, UT, Disposal Site https://www.energy.gov/lm/salt-lake-city-utah-disposal-and-processing-sites	✓							✓			
Sherwood, WA, Disposal Site https://www.energy.gov/lm/sherwood-washington-disposal-site	✓	✓						✓			✓
Shirley Basin South, WY, Disposal Site https://www.energy.gov/lm/shirley-basin-south-wyoming-disposal-site	✓	✓						✓			✓
Slick Rock, CO, Processing Site https://www.energy.gov/lm/slick-rock-colorado-disposal-and-processing-sites		✓							✓		✓
Slick Rock, CO, Disposal Site https://www.energy.gov/lm/slick-rock-colorado-disposal-and-processing-sites	✓							✓			✓
Split Rock, WY, Disposal Site https://www.energy.gov/lm/split-rock-wyoming-disposal-site	✓	✓			✓			✓	✓		✓
Spook, WY, Disposal Site https://www.energy.gov/lm/spook-wyoming-disposal-site	✓				✓			✓			✓

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations (continued)

Site Name	Type of Data Collected					Where Data Are Reported					
	Inspection	Groundwater and/or Surface Water Monitoring	Production Water or Gas Monitoring	Chemical Inventory ^a	Other Environmental Monitoring (biological, soil, etc.)	Site Inspection Report	CERCLA Five-Year Review Report	Annual Site Inspection and Monitoring Report for UMTRCA Title I or Title II Sites	Environmental Monitoring Report ^b	EPCRA Report ^c	GEMS ^c
FUSRAP Sites											
Colonie, NY, Site ^d https://www.energy.gov/lm/colonie-new-york-site	✓	✓					✓ ^d		✓		✓
Tonawanda, NY, Landfill Site https://www.energy.gov/lm/tonawanda-new-york-landfill-site	✓						✓ ^d				✓
D&D Sites											
BONUS, PR, Decommissioned Reactor Site https://www.energy.gov/lm/bonus-puerto-rico-decommissioned-reactor-site	✓					✓					
Grand Junction, CO, Site https://www.energy.gov/lm/grand-junction-colorado-site	✓	✓				✓			✓		✓
Hallam, NE, Decommissioned Reactor Site https://www.energy.gov/lm/hallam-nebraska-decommissioned-reactor-site	✓	✓				✓			✓		✓
Piqua, OH, Decommissioned Reactor Site https://www.energy.gov/lm/piqua-ohio-decommissioned-reactor-site	✓					✓					
Site A/Plot M, IL, Decommissioned Reactor Site https://www.energy.gov/lm/site-aplot-m-illinois-decommissioned-reactor-site	✓	✓				✓			✓		✓
NWSA Section 151 Site											
Parkersburg, WV, Disposal Site https://www.energy.gov/lm/parkersburg-west-virginia-disposal-site	✓	✓				✓					✓
MED/AEC Legacy Site											
Burris Park, CA, Site https://www.energy.gov/lm/burris-park-california-site	✓					✓					

Table A-2. Category 2 Sites with Links to the LM Public Website and Data Locations (continued)

Site Name	Type of Data Collected					Where Data Are Reported					
	Inspection	Groundwater and/or Surface Water Monitoring	Production Water or Gas Monitoring	Chemical Inventory ^a	Other Environmental Monitoring (biological, soil, etc.)	Site Inspection Report	CERCLA Five-Year Review Report	Annual Site Inspection and Monitoring Report for UMTRCA Title I or Title II Sites	Environmental Monitoring Report ^b	EPCRA Report ^a	GEMS ^c
PVW Sites											
Amchitka, AK, Site https://www.energy.gov/lm/amchitka-alaska-site	✓	✓			✓	✓			✓	✓	✓
Bronco, CO, Site https://www.energy.gov/lm/bronco-colorado-site					✓				✓		
Central Nevada Test Area, NV https://www.energy.gov/lm/central-nevada-test-area-cnta-nevada-site	✓	✓				✓			✓		✓
Chariot, AK, Site https://www.energy.gov/lm/chariot-alaska-site											✓
Gasbuggy, NM, Site https://www.energy.gov/lm/gasbuggy-new-mexico-site	✓		✓						✓		✓
Gnome-Coach, NM, Site https://www.energy.gov/lm/gnome-coach-new-mexico-site	✓	✓				✓			✓		✓
Rio Blanco, CO, Site https://www.energy.gov/lm/rio-blanco-colorado-site		✓							✓		✓
Rulison, CO, Site https://www.energy.gov/lm/rulison-colorado-site		✓	✓						✓		✓
Salmon, MS, Site https://www.energy.gov/lm/salmon-mississippi-site									✓		✓
Shoal, NV, Site https://www.energy.gov/lm/shoal-nevada-site	✓	✓				✓			✓		✓
Tonopah Test Range, NV, Site https://www.energy.gov/lm/tonopah-test-range-nevada-site	✓					✓					

Notes:

The table is aligned with the September 2025 *Site Management Guide* (site categories may have changed or been updated in subsequent versions).

^a LM conducts inventories at certain sites to ensure compliance with EPCRA. Refer to Section 2.2.2 for details.

^b Environmental monitoring reports may include the following (some of which provide trending of data such as contaminant time-concentration plots):



Notes (continued):

- | | |
|-----------------------------------|--|
| ↗ Verification monitoring reports | ↗ Hydrologic and natural gas sampling and analysis reports |
| ↗ Groundwater monitoring reports | ↗ Post-closure inspection and monitoring reports |

^c GEMS (<https://gems.lm.doe.gov>): This is a custom, web-based application to gather validated information for LM managed sites. Stakeholders, regulators, and project personnel can use GEMS to design interactive tabular reports, geospatial displays, and contaminant time concentration plots to evaluate trends. Available data may include:

- | | |
|--|----------------------------|
| ↗ Historical air monitoring locations | ↗ Georeferenced boundaries |
| ↗ Analytical chemistry data | ↗ Site physical features |
| ↗ Groundwater depths and elevations | ↗ Sampling locations |
| ↗ Well logs and well construction data | ↗ Site photographs |

^d This site follows the CERCLA process but is not on the National Priorities List. For this site, the equivalent to a CERCLA FYR is the Long-Term Periodic Review Report.

Table A-3. Category 3 Sites

(Typically involves operation and maintenance of remedial action system, routine inspection and maintenance, records-related activities, and stakeholder support)

Site Name	Type of Data Collected					Where Data Are Reported						
	Inspection	Groundwater and/or Surface Water Monitoring	Discharge Monitoring	Other Environmental Monitoring (biological, soil, etc.)	Chemical Inventory ^a	Site Inspection Report	CERCLA Five-Year Report	Annual Site Inspection and Monitoring Report for UMTRCA Title I or Title II Sites	EPCRA Report ^b	NPDES Report	Environmental Monitoring Report ^b	GEMS ^c
CERCLA/RCRA Sites												
Fernald Preserve, OH, Site https://www.energy.gov/lm/fernal-d-preserve-ohio-site	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓
Monticello, UT, Processing Site ^d https://www.energy.gov/lm/monticello-utah-disposal-and-processing-sites	✓	✓				✓	✓				✓	✓
Monticello, UT, Disposal Site ^d https://www.energy.gov/lm/monticello-utah-disposal-and-processing-sites	✓	✓		✓		✓	✓				✓	✓
Rocky Flats, CO, Site https://www.energy.gov/lm/rocky-flats-site-colorado	✓	✓		✓	✓	✓	✓		✓		✓	✓
Weldon Spring, MO, Site https://www.energy.gov/lm/weldon-spring-missouri-site	✓	✓		✓	✓	✓	✓				✓	✓
UMTRCA Sites												
Grand Junction, CO, Processing Site https://www.energy.gov/lm/grand-junction-colorado-disposal-and-processing-sites	✓	✓				✓					✓	✓
Grand Junction, CO, Disposal Site https://www.energy.gov/lm/grand-junction-colorado-disposal-and-processing-sites	✓	✓						✓			✓	✓
Shiprock, NM, Disposal Site https://www.energy.gov/lm/shiprock-new-mexico-disposal-site	✓	✓		✓				✓			✓	✓
Tuba City, AZ, Disposal Site https://www.energy.gov/lm/tuba-city-arizona-disposal-site	✓	✓			✓			✓			✓	✓



Notes:

^a LM conducts chemical inventories at certain sites to ensure compliance with EPCRA. Refer to Section 2.2.2 for details.

^b Types of environmental monitoring reports include:

- | | |
|--|---|
| ⇒ Verification monitoring reports | ⇒ Federal Facility Agreement quarterly reports |
| ⇒ Groundwater monitoring reports | ⇒ Site environmental reports (including CERCLA site annual reports) |
| ⇒ Hydrologic and natural gas sampling and analysis reports | |

^c GEMS (<https://gems.lm.doe.gov>): This is a custom, web-based application to gather validated information for LM managed sites. Stakeholders, regulators, and project personnel can use GEMS to design interactive tabular reports, geospatial displays, and contaminant time concentration plots to evaluate trends. Available data may include:

- | | |
|---|------------------------------------|
| ⇒ Analytical groundwater and surface water data | ⇒ Georeferenced boundaries |
| ⇒ Groundwater depths and elevations | ⇒ Site physical features |
| ⇒ Well logs and well construction data | ⇒ Water quality sampling locations |

^d The Monticello, Utah, Processing Site and Monticello, Utah, Disposal Site combined include the Monticello Vicinity Properties Site and the Monticello Mill Tailings Site, which are separate CERCLA sites.

Table A-4. Calendar Year 2025 Groundwater Monitoring Program and AOC Exceedance Summary

Site Name	Radiological Monitoring ^a	Non-rad Monitoring ^b	Sampling Frequency	Sampled in 2025 Y/N	AOCs ^c	Active Wells	POC Wells ^d
CERCLA/RCRA Sites							
Fernald Preserve, OH, Site	Y	Y	Semiannually	Y	Alpha-chlordane, antimony, aroclor-1254, arsenic, barium, beryllium, benzene, bis(2-chloroisopropyl) ether, bis(2-ethylhexyl) phthalate, boron, bromodichloromethane, bromoform, bromomethane, cadmium, carbazole, carbon disulfide, chloroethane, chloroform, chromium (VI), cobalt, copper, fluoride, lead, manganese, mercury, methylene chloride, molybdenum, neptunium-237, nickel, nitrate + nitrite, octachlorodibenzo-pdioxin, radium-226, radium-228, selenium, silver, strontium-90, technetium-99, thorium-228, thorium-230, thorium-232, trichloroethene, total uranium, vanadium, vinyl chloride, zinc, 1,1 dichloroethane, 1,1-dichloroethene, 1,2 dichloroethane, 4-methylphenol, 4-nitrophenol, and 2,3,7,8-tetrachlorodibenzo-p-dioxin	91	0
Laboratory for Energy-Related Health Research, CA, Site	Y	Y	Quarterly	N	Aluminum, americium-241, benzene, carbon 14, cesium-137, chlordane, chloroform, chromium, 1,1-dichloroethane, dieldrin, formaldehyde, gross beta, iron, manganese, mercury, molybdenum, nickel, nitrates, radium 226, selenium, silver, strontium-90, uranium-238, zinc	9	0
Monticello, UT, Disposal and Processing Sites	-	Y	Semiannually	Y	Arsenic, magnesium, manganese, molybdenum, nitrate, selenium, uranium, vanadium	77	0
Mound, OH, Site	-	Y	Quarterly	Y	Tetrachloroethene, trichloroethene, vinyl chloride, <i>cis</i> -1,2-dichloroethene, <i>trans</i> -1,2 dichloroethene	48 ⁱ	0
Pinellas County, FL, Site	-	Y	Semiannually	Y	Trichloroethene, vinyl chloride, 1,1 dichloroethene, 1,4-dioxane, <i>cis</i> -1,2 dichloroethene, <i>trans</i> -1,2 dichloroethene	61	0
Rocky Flats, CO, Site	Y	Y	Quarterly	Y	Volatile organic compounds, semi-volatile organic compounds, metals, plutonium, americium, uranium, nitrate (for a detailed list of AOCs, see the site webpage) 28 PFAS chemicals, including PFOA, PFAS and other PFAS listed in Colorado Water Quality Control Commission Policy	88	0
Weldon Spring, MO, Site	Y	Y	Quarterly	Y	Nitrate, nitrobenzene, trichloroethene, uranium, 1,3-dinitrobenzene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2,4,6-trinitrotoluene	82	0
PVW Sites							
Central Nevada Test Area, NV	Y	-	3 years	N	Carbon-14, iodine-129, tritium	12	12
Gasbuggy, NM, Site	Y	-	5 years	N	Tritium	3	0

Table A-4. Calendar Year 2024 Groundwater Monitoring Program and AOC Exceedance Summary (continued)

Site Name	Radiological Monitoring ^a	Non-rad Monitoring ^b	Sampling Frequency	Sampled in 2025 Y/N	AOCs ^c	Active Wells	POC Wells ^d
PVW Sites							
Gnome-Coach, NM, Site	Y	—	Annually	Y	Cesium-137, strontium-90, tritium	3	0
Rio Blanco, CO, Site	Y	—	Annually	Y	Tritium	4	0
Rulison, CO, Site	Y	—	Annually	Y	Tritium	3	0
Salmon, MS, Site	Y	Y	Biennially	Y	cis-1,2-dichloroethene, trichloroethene, tritium, vinyl chloride	35	0
Shoal, NV, Site	Y	—	3 years	N	Carbon-14, iodine-129, tritium	13	13
UMTRCA Sites ^{gh}							
Ambrosia Lake, NM, Disposal Site	—	Y	3 years	Y	Molybdenum, nitrate + nitrite as nitrogen, selenium, sulfate, uranium	3	0
Bluewater, NM, Disposal Site	—	Y	Semiannually	Y	Molybdenum, selenium, uranium	19	4
Burrell, PA, Disposal Site	—	Y	5 years	N	Calcium, chloride, iron, lead, magnesium, manganese, molybdenum, nitrate + nitrite as nitrogen, potassium, selenium, sodium, sulfate, total dissolved solids, uranium	8	0
Canonsburg, PA, Disposal Site	—	Y	5 years	N	Uranium	5	3
Durango, CO, Disposal Site	—	Y	Annually	Y	Molybdenum, selenium, uranium	7	3
Durango, CO, Processing Site	—	Y	Annually ^e	Y	Cadmium, manganese , molybdenum, selenium, sulfate, uranium	13	8
Falls City, TX, Disposal Site	—	Y	Annually ^e	Y	Uranium	12	0
Grand Junction, CO, Disposal Site	—	Y	Annually ^e	Y	Molybdenum, nitrate as nitrogen, polychlorinated biphenyls, selenium , sulfate, total dissolved solids, uranium , vanadium	3	0
Grand Junction, CO, Processing Site	—	Y	5 years	N	Ammonia (as NH ₄), molybdenum, uranium	4	0
Green River, UT, Disposal Site	—	Y	Annually ^g	Y	Nitrate, sulfate, uranium	19	4
Gunnison, CO, Disposal Site	—	Y	5 years ^e	N	Calcium, chloride, iron, magnesium, manganese, potassium, sodium, sulfate, total dissolved solids, uranium	8	6
Gunnison, CO, Processing Site	—	Y	Annually ^e	Y	Manganese, uranium	29	26
Lakeview, OR, Disposal Site	—	Y	5 years	N	Arsenic, cadmium, uranium	9	8
Lakeview, OR, Processing Site	—	Y	5 years	N	Manganese, sulfate	5	0

Table A-4. Calendar Year 2024 Groundwater Monitoring Program and AOC Exceedance Summary (continued)

Site Name	Radiological Monitoring ^a	Non-rad Monitoring ^b	Sampling Frequency	Sampled in 2025 Y/N	AOCs ^c	Active Wells	POC Wells ^d
UMTRCA Sites							
L-Bar, NM, Disposal Site	–	Y	3 years	Y	Chloride, nitrate + nitrite as nitrogen, selenium, sulfate, total dissolved solids, uranium	12	4
Monument Valley, AZ, Processing Site	–	Y	Annually ^e	Y	Nitrate, sulfate, uranium	61	0
Naturita, CO, Processing Site	–	Y	Annually ^e	Y	Arsenic, uranium, vanadium	8	8
Rifle, CO, Processing (New) Site	–	Y	Semiannually ^e	Y	Arsenic, molybdenum, nitrate as nitrogen, selenium, uranium, vanadium	25	8
Rifle, CO, Processing (Old) Site	–	Y	Quarterly	Y	Selenium, uranium, vanadium	8	0
Riverton, WY, Processing Site	–	Y	Annually ^e	Y	Manganese, molybdenum, sulfate, uranium	39	29
Sherwood, WA, Disposal Site	–	Y	Annually	Y	Chloride, sulfate, total dissolved solids	3	0
Shiprock, NM, Disposal Site	–	Y	Semiannually	Y	Ammonium, manganese, nitrate, selenium, strontium, sulfate, uranium	151	0
Shirley Basin South, WY, Disposal Site	Y	Y	Annually ^e	Y	Cadmium, chloride, chromium, lead, nickel, nitrate, radium-226, radium-228, selenium, sulfate, thorium-230, total dissolved solids, uranium	14	4
Slick Rock East, CO, Processing Site	Y	Y	Annually ^e	Y	Manganese, molybdenum, nitrate, radium-226, radium-228, selenium, uranium	9	5
Slick Rock West, CO, Processing Site	Y	Y	Annually ^e	Y	BTEX (benzene, ethylbenzene, toluene and xylenes), manganese, molybdenum, nitrate, radium-226, radium-228, selenium, uranium	9	7
Split Rock, WY, Disposal Site	–	Y	Annually ^e	Y	Nitrate, sulfate, selenium, uranium	12	2
Tuba City, AZ, Disposal Site	–	Y	Semiannually ^e	Y	Molybdenum, nitrate, selenium, uranium	8 ^k	8
FUSRAP Sites							
Colonie, NY, Site	–	Y	Biennially	Y	Cis-1,2-dichloroethene, tetrachloroethene, trichloroethene, vinyl chloride	7	7
D&D Sites							
Grand Junction, CO, Site	–	Y	Annually ^e	Y	Manganese, molybdenum, selenium, sulfate, uranium	7	7
Hallam, NE, Decommissioned Reactor Site	Y	Y	5 years	N	Gamma-emitting nuclides, gross alpha, gross beta, nickel-63, tritium, uranium	17	0
Site A/Plot M, IL, Decommissioned Reactor Site	Y	–	Annually ^l	N	Strontium-90, tritium	19	0

Table A-4. Calendar Year 2024 Groundwater Monitoring Program and AOC Exceedance Summary (continued)

Site Name	Radiological Monitoring ^a	Non-rad Monitoring ^b	Sampling Frequency	Sampled in 2025 Y/N	AOCs ^c	Active Wells	POC Wells ^d
NWSA Section 151 Site							
Parkersburg, WV, Disposal Site	Y	Y	10 years	Y	Antimony, barium, beryllium, cadmium, calcium, chloride, chromium, gross alpha, gross beta, lead, magnesium, mercury, nickel, nitrate + nitrite, potassium, radium-226, radium 228, selenium, sodium, sulfate, thallium, thiocyanate, uranium, zirconium	2	0

Notes:

^a Radiological monitoring refers to groundwater sampling for radiological analytes (including uranium isotopes).

^b Non-rad monitoring refers to groundwater sampling for non-radiological analytes (including elemental uranium).

^c AOCs exceeding applicable standards at POC wells during the reporting year are in **bold** type.

^d For the purposes of this report, a POC well is an active monitoring well at which regulatory standards apply and/or which an exceedance will trigger a regulatory action.

Reports and information documenting AOC exceedances:

AOCs may be exceeded at POC wells without a resultant violation; violations are conditional to the regulatory framework for each site. See the site-specific documents listed below for more information on the exceedances (available at <https://www.energy.gov/lm/sites/lm-sites>) including contaminant time-concentration plots to evaluate trends.

^e See Table A-5 for exceedances at UMTRCA processing sites and D&D sites.

^f Sampling frequency of quarterly applies to 10 wells at Rocky Flats; the remaining wells have varying sampling frequencies. Details on sampling frequency can be found in the *Rocky Flats Legacy Management Agreement* (CDPHE et al. 2007).

^g 2025 Annual Site Inspection and Monitoring Report for Uranium Mill Tailings Radiation Control Act Title I Disposal Sites.

^h 2025 Annual Site Inspection and Monitoring Report for Uranium Mill Tailings Radiation Control Act Title II Disposal Sites.

ⁱ Mound site: Active well count includes 48 groundwater wells and six seeps.

^j Burrell disposal site: Active well count includes eight groundwater wells and two seeps.

^k Tuba City site: Active well count is based on LTS&M. A groundwater monitoring network is present at the site and consists of an additional 117 wells, including extraction wells being used for interim treatment.

^l Sampling frequency at the Site A/Plot M site may be annually or biennially, depending on the well.

Abbreviations:

N = no

— = not applicable

non-rad = non-radiological

Y = yes

Table A-5. Data for AOC Exceedances at UMTRCA Processing Sites and D&D Sites

Site Name	AOC	Result (mg/L) ^{ab}	Limit (mg/L) ^c
Durango, CO, Processing Site	Cadmium	0.0576	0.01
	Manganese ^d	7.44	1.7
	Sulfate ^d	7130	1500
	Uranium	3.58	0.044
Grand Junction, CO, Site	Manganese	4.32	0.72
	Sulfate	1610	1150
	Uranium	0.284	0.03
Gunnison, CO, Processing Site	Manganese	4.72	1.6
	Uranium	0.388	0.044
Monument Valley, AZ, Processing Site	Nitrate + Nitrite as Nitrogen	434	10
	Sulfate	1500	250
	Uranium	0.463	0.044
Naturita, CO, Processing Site	Uranium	0.394	0.044
	Vanadium	0.986	0.33
	Arsenic	0.296	0.05
	Molybdenum	1.2	0.1
Rifle, CO, Processing (New) Site	Nitrate + Nitrite as Nitrogen	21.2	10
	Selenium	0.879	0.01
	Uranium	0.0578	0.044
	Vanadium	23.4	0.086
Riverton, WY, Processing Site	Molybdenum	0.636	0.1
	Uranium	1.16	0.044
Slick Rock East, CO, Processing Site	Selenium	0.0365	0.01
	Uranium	1.05	0.044
Slick Rock West, CO, Processing Site	Benzene	463	5
	Manganese	3.92	3.5
	Molybdenum	1.85	0.1
	Nitrate + Nitrite as Nitrogen	110	10
	Selenium	2.41	0.18
	Uranium	0.092	0.044

Notes:

^a Result represents maximum concentration detected.

^b Results can also be found in [GEMS](#), which is a custom, web-based application to gather validated information for LM-managed sites. Stakeholders, regulators, and project personnel can use GEMS to design interactive tabular reports, geospatial displays, and contaminant time-concentration plots to evaluate trends.

^c Regulatory limits are defined in site-specific documents and may be a combination of risk-based limits, MCLs, ACLs, or other.

^d Sulfate and manganese limits are listed as risk-based goals in the 2019 Verification Monitoring Report.

Abbreviations:

ACL = alternate concentration limit

MCL = maximum concentration limit or maximum contaminant level, depending on the site

mg/L = milligrams per liter