DOE/LM-1477

U.S. DEPARTMENT OF ENERGY | Legacy Management

2016–2025 STRATEGIC PLAN

http://energy.gov/lm

Managing Today's Change, Protecting Tomorrow's Future

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Clockwise from top left:

Rocky Flats, Colorado, Site.
Fernald Preserve Visitors Center in Ohio.
Mexican Hat, Utah, Disposal Site.
BONUS, Puerto Rico, Decommissioned Reactor, Site.

Center photo:

Agencies and Tribal Nations conduct review and comment meetings to fulfill DOE's Environmental Justice mission.

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U.S. DEPARTMENT OF ENERGY | Legacy Management

2016–2025 STRATEGIC PLAN

May 2016

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Managing Today's Change, Protecting Tomorrow's Future

Organizational Core Values

PEOPLE

People are our most important resource. We respect and use our experience and skills and appreciate our diversity.

SAFETY

We protect our human and material resources and promote safe work practices within the office and at our sites.

BUSINESS EXCELLENCE

We are fiscally responsible and actively pursue best business practices.

COMMUNICATION

We share information freely across all levels of the organization and take full advantage of our virtual organization's strengths.

LEADERSHIP AND TEAMWORK

We encourage leadership and teamwork at all levels of the organization. We value active participation and demonstrate respect for each other.

CUSTOMER FOCUS

We openly communicate with all our customers in a timely manner and actively seek opportunities to improve our services.

ENVIRONMENTAL STEWARDSHIP

We consult with our communities to make informed decisions that comply with environmental laws, regulations, and agreements; support environmental justice; and demonstrate respect for the environment.

INTEGRITY

We use ethical practices in the performance of our mission and strive to ensure that the integrity that we have built is not compromised.

Dedication ceremony at the Grand Junction, Colorado, Office.

LM staff at All-Hands Training at the Fernald Preserve in Ohio.

Letter to the Reader

We appreciate that you have chosen to use your valuable time to read the U.S. Department of Energy (DOE or Department) Office of Legacy Management (LM) *2016–2025 Strategic Plan.* This is our fourth strategic plan since LM was established in December 2003. For those who are not familiar with our mission, we are charged with providing a long-term, sustainable solution to the legacy of the Cold War.

LM is responsible for activities (environmental protection, information management, retiree benefits, land management, and community engagement) at sites where DOE's mission has ended and active environmental cleanup has been completed. Since inception, LM's responsibilities have grown from 33 sites to 91 sites, today. As discussed in this plan, our responsibilities will continue to grow as cleanup is completed at additional sites (e.g., former uranium milling sites) and responsibility is transferred to LM for long-term care.

The *2016–2025 Strategic Plan* is similar in format to our 2011–2020 version. However, we continue to learn and grow as an organization, adopting more effective and efficient ways to carry out our responsibilities to you and to the environment. This plan has evolved over the years because a good strategic plan will look toward the future while incorporating changes based on critical examination of the past.

The point is not to maintain the status quo, but rather to put our efforts—your money—where it can have the greatest impact on accomplishing our mission and goals. You'll see that we're now planning to do more of some things, less of others, none of some things we used to do, and some entirely new things.

LM employees at the Fernald Preserve in Ohio.

MORE

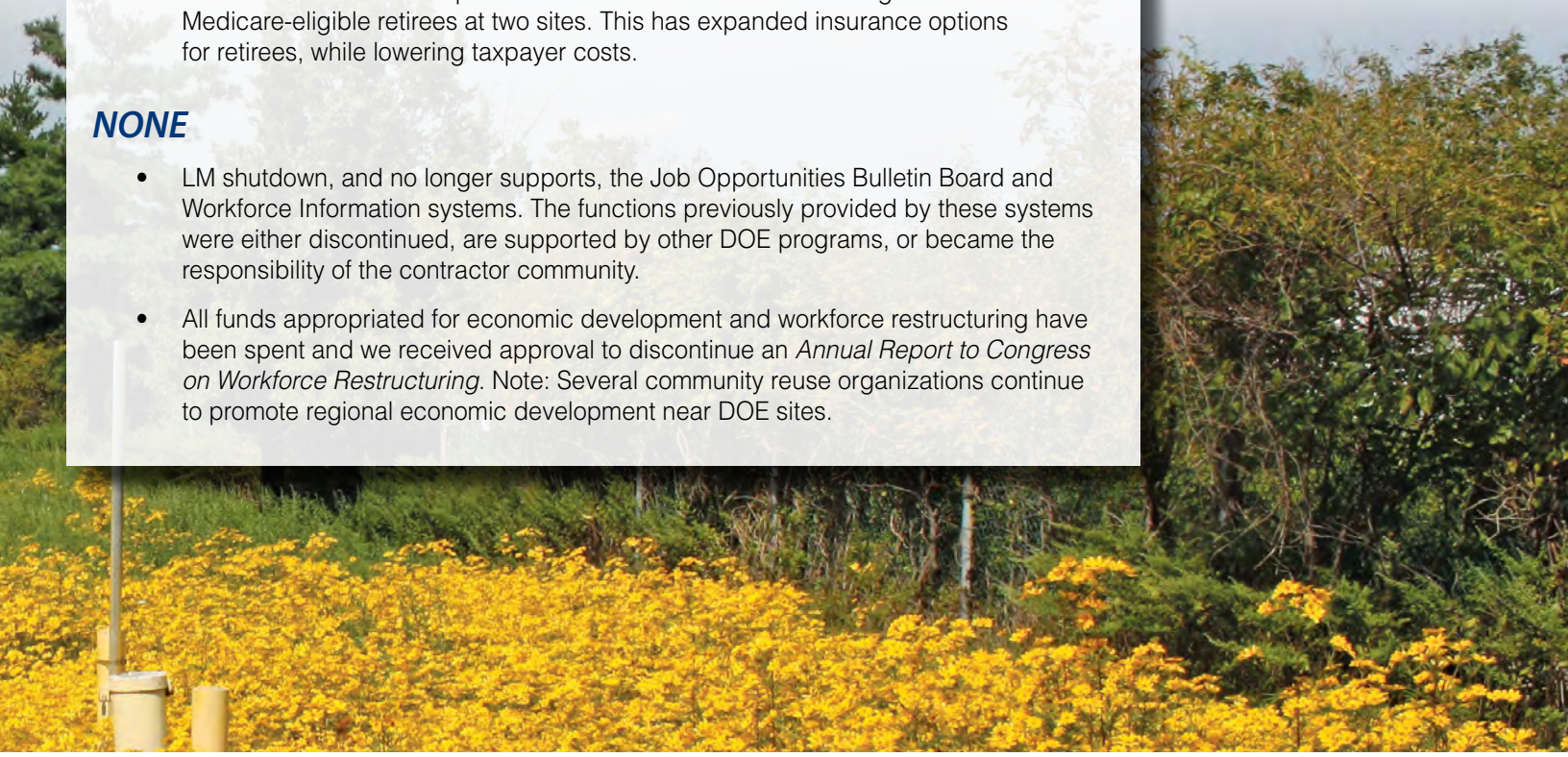
- Today, we have 91 sites. We anticipate receiving an additional 30 sites over the 10-year period of this plan. That will bring us to 121 sites, and the associated responsibilities, by 2025.
- We believe effective collaboration with other government agencies, tribal nations, nonprofit organizations, and the public, will improve our ability to achieve our goals and objectives. This plan emphasizes our continued commitment to collaboration by including a new goal focused on public and intergovernmental engagement.
- The President and Congress have challenged the federal government to operate more effectively and sustainably. We will need to find ways to meet these new goals and requirements.
- We'll use more diverse methods to make comprehensive information on both current and historical operations at LM's sites more accessible to the public and to our regulators.

LESS

- DOE has concurred with our contractors' requests to replace the pension plans of former workers with either lump-sum payments or insurance company annuities. This has lowered the Department's liability, reduced the financial risk to LM's commitments, and ensured workers will receive the value of the benefits they've earned.
- Funding requests for retiree pension plans were reduced from $40 million to $0; the remaining retiree pension plan assets now equal or exceed liabilities.
- DOE contractors have implemented health reimbursement arrangements for Medicare-eligible retirees at two sites. This has expanded insurance options for retirees, while lowering taxpayer costs.

NONE

- LM shutdown, and no longer supports, the Job Opportunities Bulletin Board and Workforce Information systems. The functions previously provided by these systems were either discontinued, are supported by other DOE programs, or became the responsibility of the contractor community.
- All funds appropriated for economic development and workforce restructuring have been spent and we received approval to discontinue an *Annual Report to Congress on Workforce Restructuring*. Note: Several community reuse organizations continue to promote regional economic development near DOE sites.



Middlesex, New Jersey, Site.

NEW

- Serving as the Department's lead on an interagency effort to address the environmental impacts—and the potential public-health impacts—of more than 4,000 uranium mines that provided ore to the Atomic Energy Commission.
- Managing the records and information systems associated with the Yucca Mountain, Nevada, project.
- Evaluating the potential effects of climate change on remedy performance and management of natural resources on LM sites.
- Conducting financial reviews on claims submitted by uranium/thorium mill site licensees to determine if costs are eligible for reimbursement under the Title X Uranium/Thorium Reimbursement Program.

One final note: During development of this plan we asked you, our stakeholders, for feedback. We received hundreds of thoughts, ideas, suggestions, and recommendations from dozens of commenters. Comments came from individuals, governmental agencies, companies, tribal nations, and nonprofit organizations. Please know that if you provided comments we read them, we appreciated the time you took to write them, and we considered your comments as revisions were made to this plan. We will continue to consider your concerns and comments in the future as we evaluate more effective ways to fulfill our mission.

David W. Geiser
Director, Office of Legacy Management

Thomas Pauling
Director, Business Operations

Tania Smith Taylor
Director, Site Operations

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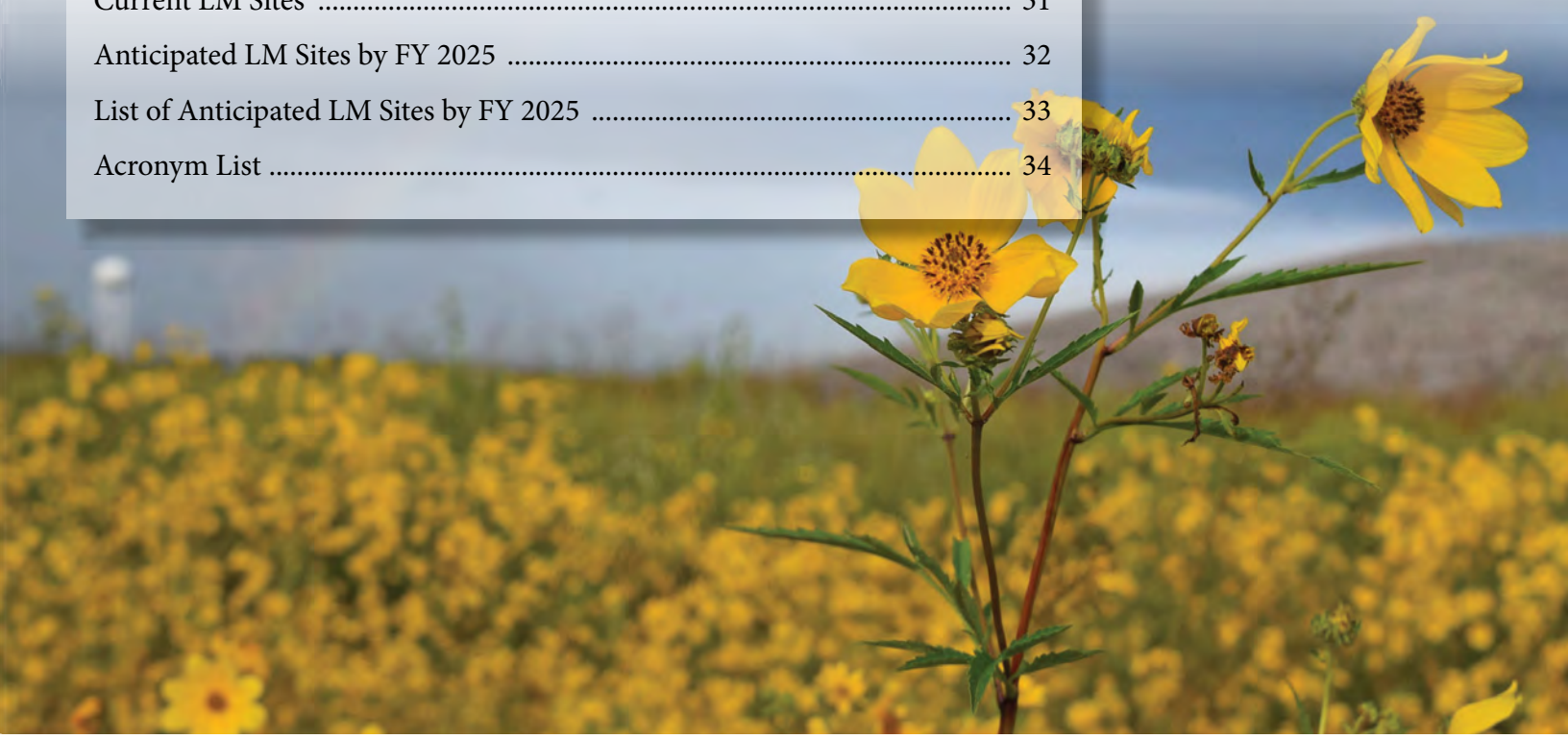


Weldon Spring, Missouri, Site.

Mission, Vision, and Operating Principles

Mission Statement

Fulfill the Department of Energy's post-closure responsibilities and ensure the future protection of human health and the environment.

Vision

- The Department's legacy workforce, communities, and the environment are well-protected and served.
- Consistent and effective long-term surveillance and maintenance protects people and the environment.
- The public has easy access to relevant records and information.
- Because we work together, stakeholders, tribal nations, and state and local governments trust us.
- The Department safeguards former contractor workforce retirement benefits through prudent, timely funding.
- People are treated fairly and have meaningful involvement.

Operating Principles

Six principles guide this strategic plan's implementation:

1. We operate safely while making protection of human health (worker and public) and the environment a priority.
2. We are serious about our responsibility as a federal trustee to safeguard land and resources.
3. We recognize that legacy activities impact local communities. We tailor site-specific solutions to short- and long-term issues facing our sites and the affected communities.
4. Stakeholder involvement is integral to our operations. We succeed best when we communicate and collaborate with affected communities, government (local, state, and federal) agencies, and tribal nations.
5. We operate in an open and transparent manner.
6. We are fiscally conservative in managing taxpayer monies.

Canonsburg, Pennsylvania, Disposal Site.

Summary of Goals and Objectives

Goal 1. Protect human health and the environment.

1. Comply with environmental laws and regulations related to radioactive and hazardous materials, to prepare for receiving sites into LM.
2. Reduce post-closure-related health risks in a cost-effective manner.
3. Improve the long-term sustainability of environmental remedies.
4. Address the environmental legacy of defense-related uranium mines and milling sites.

Goal 2. Preserve, protect, and share records and information.

1. Protect and maintain legacy records.
2. Make information more accessible.
3. Preserve Yucca Mountain Project science and information.

Goal 3. Safeguard former contractor workers' retirement benefits.

1. Ensure prudent funding of former contractor workers' retirement benefits.
2. Shelter former contractor workers' retirement benefits from risks.

Goal 4. Sustainably manage and optimize the use of land and assets.

1. Enhance sustainable environmental performance for facilities and personal property, and account for climate change in LM site management.
2. Optimize public use of federal lands and properties.
3. Transfer excess real and personal government property.
4. Manage the Uranium Leasing Program (ULP).

Goal 5. Sustain management excellence.

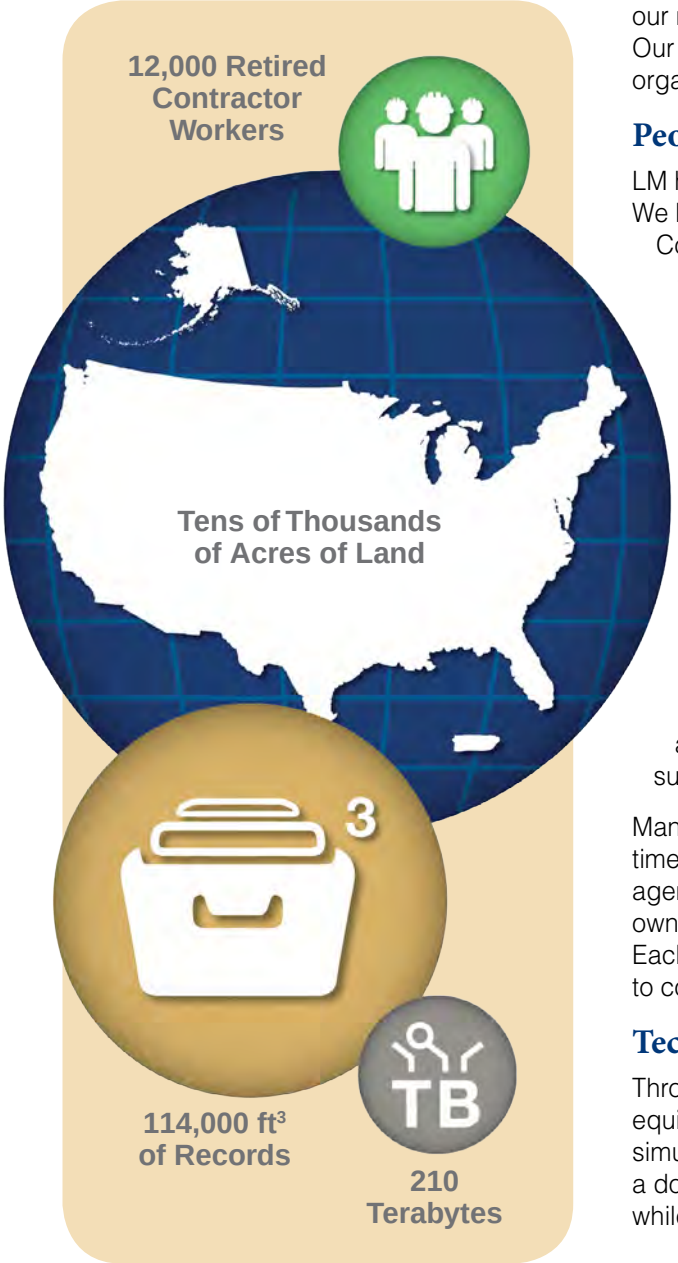
1. Develop and maintain high standards for planning, budget, acquisition, and project management.
2. Sustain a talented, diverse, inclusive, and performance-driven federal workforce.
3. Improve the efficiency and effectiveness of administrative actions.

Goal 6. Engage the public, governments, and interested parties.

1. Engage the public in our program, project, and site activities.
2. Work effectively with local, state, and federal governments and nonprofit organizations.
3. Consult, collaborate, and partner with the people and governments of tribal nations.
4. Support development of the Manhattan Project National Historical Park.
5. Implement Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, within LM.

Resource Strategies

LM has commitments to more than 12,000 retired contractor workers, and manages over 114,000 cubic feet of records, 210 terabytes of electronic material, and tens of thousands of acres of land.



LM operations are trans-hemispheric. We protect human health and the environment at 91 sites in 29 states and territories, from Puerto Rico (longitude 65° west) in the Caribbean Sea, to Amchitka Island, Alaska (longitude 179° east), in the Bering Sea. We also had commitments to more than 12,000 retired contractor workers, and managed over 114,000 cubic feet of records, 210 terabytes of electronic material, and tens of thousands of acres of land. With constrained budgets, LM must strategically acquire and allocate our resources to achieve our mission and meet our goals and objectives. Our resource strategy is best described in three broad areas: people and organizations, technology and processes, and funding and acquisition.

People and Organizations

LM has 64 federal employees and approximately 380 contractor personnel. We have permanent staff (federal and/or contractor) in Grand Junction, Colorado; Monticello, Utah; Morgantown, West Virginia; Pinellas, Florida; Southwest Ohio (to support the Fernald and Mound sites); St. Charles, Missouri (the Weldon Spring site); Tuba City, Arizona; Washington, DC; and Westminster, Colorado (the Rocky Flats site). This organization of professionals is connected through state-of-the-art teleconferencing, videoconferencing, and Internet capabilities.

LM staff has a broad range of skills and abilities. We have geologists, hydrologists, engineers, and physical scientists to ensure long-term environmental protection; actuaries, financial managers, and procurement specialists to provide for retired contractor pension payments and post-retirement benefits; certified realty officers and property specialists to manage and dispose of federal property; information technology specialists and records professionals to capture, safeguard, and share information; historians and public participation specialists to help us engage with stakeholders and governments; and human resource and administrative staff to support personnel and workflow needs.

Managing numerous separate sites (the number of LM sites increases over time) requires close cooperation with local, state, and federal government agencies and tribal nations. We also have agreements with private land owners, commercial operators, public utilities, and DOE national laboratories. Each of these arrangements provides LM with resources and/or relationships to conduct our mission and meet our goals.

Technology and Processes

Through the Internet, LM can remotely view instrumentation and operate equipment. The systems we have installed allow one LM operator to simultaneously monitor the performance of environmental remedies at over a dozen sites. This has significantly expanded our monitoring capabilities while allowing staff to focus on other mission-critical functions.

LM actively seeks to study and apply cost-effective new technologies that enhance protectiveness. We are evaluating, and expect to further apply, remote sensing, telemetry, and drone-based sensors with instruments, to improve site-monitoring efforts while reducing costs.

Environmental remedies installed by the Department are conservative in nature and often include multiple layers of protection. Billions of dollars were spent to perform cleanup and establish long-term, sustainable remedies that protect human health and the environment. LM acts to protect those investments through active maintenance and administrative institutional controls as part of a defensive, in-depth strategy for our sites.

LM uses a single contractor to ensure consistency and accountability for protecting human health and the environment, preserving records, managing land and assets, sustaining management excellence, and engaging stakeholders.

Funding and Acquisition

Where possible, LM uses existing DOE management and operating contractors to manage pension plan assets and provide post-retirement benefits to retired contractor workers. This approach reduces costs; utilizes a knowledgeable, existing workforce; and ensures timely and accurate benefit payments.

Funding for LM's mission is requested by the Administration and appropriated by Congress. These funds constitute the bulk of LM's financial resources. LM works closely with DOE management, the Office of Management and Budget (OMB), and Congress to communicate our goals and objectives and resource requirements.

LM operations also generate revenue for the federal government. Money is provided to the U.S. Department of the Treasury through site transition (private licensees must make payments under the Uranium Mill Tailings Radiation Control Act [UMTRCA] when transferring a site to DOE, to offset the cost of long-term surveillance and maintenance), disposal of real property, lease payments, and royalties from the ULP.

LM also works closely with adjacent land owners and other government agencies to minimize cost; collaborative action is taken wherever possible. This includes construction and maintenance of roads, bridges, trails, signs, fences, weed and animal control, and other common land-management aspects.

Wetlands sampling conducted at the Fernald Preserve in Ohio.

Representatives from the Navajo Nation and multiple federal agencies attended a Five-Year Plan meeting and toured the Monument Valley, Arizona, and Mexican Hat, Utah, disposal sites.

Protect Human Health and the Environment

GOAL 1

Situation Analysis

LM protects human health and the environment by conducting long-term surveillance and maintenance (LTS&M) activities at 91 sites (March 2016). We anticipate managing an additional 30 sites by 2025. Additionally, LM leads the effort to ensure protection of low-income, minority, and tribal populations potentially affected by DOE activities (Executive Order 12898). LM complies with regulations designed to prevent public exposure to radioactive and hazardous materials at its sites.

LM sites fall under a variety of regulatory and/or functional categories:

- UMTRCA
- Formerly Utilized Sites Remedial Action Program (FUSRAP)
- Defense Decontamination and Decommissioning (D&D) Program
- Nevada Offsites, (from the "Atoms for Peace" or "Plowshare Program," and the Vela Uniform program for nuclear weapons treaty verification)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- Nuclear Waste Policy Act of 1982, Section 151
- Other sites with long-term radioactive and hazardous materials concerns

Current and future LM sites maps are on pages 31 and 32. The tables on page 33 list the current and anticipated LM sites and their transition years. Site-specific information is available via the Internet at http://energy.gov/lm/sites/lm-sites.

Long-Term Surveillance and Maintenance

Isolation of radioactive and hazardous materials, often in an engineered disposal cell, is the first step in LTS&M. Additional LTS&M, including routine inspections, environmental monitoring, implementing environmental remediation strategies, maintenance, and institutional controls (ICs) ensures long-term protection of human health and the environment at LM sites. ICs do not take the place of site remediation and are not intended as a substitute for groundwater cleanup, but act as necessary protective measures while cleanup progresses. Some controls remain indefinitely, such as barriers to tailings, including the rock cover and fences, to prevent future access and exposures.

ICs make the public aware of the potential danger from residual contamination, add an additional level of assurance that access to hazards is restricted, and prevent exposure to potentially contaminated water. LM will ensure that these controls remain effective and, when practicable, reuse the land.

Site Count by Regulatory Framework (91 Total Sites)

Monument Valley, Arizona, mill site during production and present day.

After years of conducting LTS&M, our understanding of challenges posed by maintaining public health and the environment at our sites has changed. We expected that many sites would require only records retention and limited inspections. However, at some UMTRCA sites, water that was discharged during mill operations resulted in contaminated groundwater, requiring more extensive characterization, monitoring and—in some cases—treatment than was previously envisioned. LM performs regular reviews (every 5 years for CERCLA remedies and periodically for other sites) to evaluate the protectiveness of our cleanup decisions. Where subsequent action is needed, we will use a risk-based approach to prioritize activities.

Many sites will never be released for unrestricted use. These sites must nevertheless meet regulatory standards and agreements that define LTS&M responsibilities.

For example, LM will be responsible for several dozen small, privately-owned FUSRAP sites and their adjacent properties, which will require close monitoring due to residual contamination and their proximity to commercial and residential areas. As environmental remediation efforts continue and sites are transitioned to LM for long-term care, we recognize that our LTS&M responsibilities will become increasingly complex and varied, and require continual management improvement to protect human health and the environment.

Weather and climate changes pose additional challenges. Further considerations of weather impacts in the face of climate change are also expected. To gain insight into how LM might adapt LTS&M strategies, we have participated in a DOE-wide working group to exchange knowledge and experiences. We have also attended training and conferences focused on climate-change adaptation. Internally, we have taken on various initiatives to determine where LM sites are most vulnerable, ways to mitigate those vulnerabilities, and options for incorporating relevant, climate-related factors into program decisions.

Uranium/Thorium Reimbursement

The Title X Uranium/Thorium Reimbursement Program reimburses the mill site licensees for a share of their site remediation costs, relative to the percent of product sold to the U.S. Atomic Energy Commission. In May 2011, LM and the DOE Office of Environmental Management (EM) entered into a Memorandum of Agreement for LM to conduct financial reviews of Title X program claims to determine if costs are eligible for reimbursement. After LM consults with EM, who oversees the Title X program, reimbursements are provided to Title X licensees.

Actions to Address Defense-Related Uranium Mines (DRUM) and Abandoned Uranium Mines (AUM)

LM participates in a multi-agency effort to address management of legacy uranium mining in the United States. In 2014, after consulting with other federal agencies, affected states and tribal nations, and the interested public on AUMs, LM submitted the *Defense-Related Uranium Mines Report to Congress*. A DOE national inventory database was developed for the DRUM report and identified 4,225 mines that produced uranium ore between 1947 and 1970 for atomic energy defense activities. Some uranium mine reclamation and remediation has occurred by state, tribal, and federal governments under different regulatory frameworks. However, there is an opportunity to improve the allocation of resources to address this national problem.

GOAL 1

To better address the environmental legacy of DRUMs, LM has partnered with the U.S. Environmental Protection Agency (EPA), the U.S. Bureau of Land Management, and other agencies to improve the content and quality of mine data in the DOE national inventory. LM's role in the interagency effort is to provide technical support and validate and verify site-specific mine data. This will help governments address high-priority mines using a coordinated and cost-effective approach. Updating the inventory will also improve the accuracy of cost estimates for uranium-mine reclamation and remediation.

Mercury Storage Facility Operation

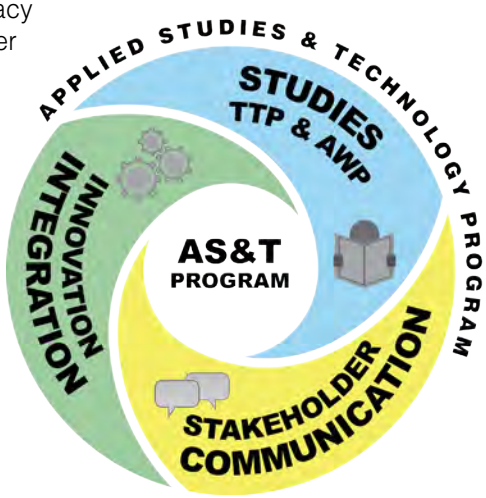
The *Mercury Export Ban Act of 2008*, Public Law 110–414 (the Act), prohibited the sale, distribution, transfer, and export (and other purposes) of elemental mercury. Section 5 of the Act requires DOE to designate and operate a facility (or facilities) for the purpose of long-term storage and management of elemental mercury generated in the U.S., and to establish procedures and standards to govern its receipt, management, and storage. On December 1, 2008, the Acting Deputy Secretary of Energy issued a memorandum to EM and LM formally mandating responsibilities, along with a completion time frame. EM is responsible for constructing an operational elemental-mercury storage facility and LM is charged with operating the facility.

Michael Bray mine in San Miguel County, Colorado, before and after reclamation.

Applied Studies and Technology

Given the long half-lives of some radionuclides, LM sites will require LTS&M for hundreds or even thousands of years. Incorporating improvements in scientific understanding and technology applications into site management and remediation strategies improves cleanup effectiveness and can decrease long-term costs. Working with other federal agencies, the environmental community, universities, national laboratories, and the international scientific community allows us to stay informed about emerging engineering and scientific advancements that support ongoing LM studies and promote data sharing, discourse, and scientific achievements. The overriding goal is to incorporate advances in science and technology to improve our capabilities. As they address their own environmental issues from Cold War activities, individual countries and international organizations are recognizing the importance of the LM mission. As a result, we have engaged in multi-lateral (e.g., the International Atomic Energy Agency [IAEA]) and bi-lateral international activities.

These engagements allow LM opportunities to share lessons learned and expertise regarding legacy uranium sites and LTS&M at all types of former radioactively contaminated sites, through stakeholder participation, records management, and beneficial reuse of sites. We anticipate that these engagements will continue to benefit LM during the next 10 years.

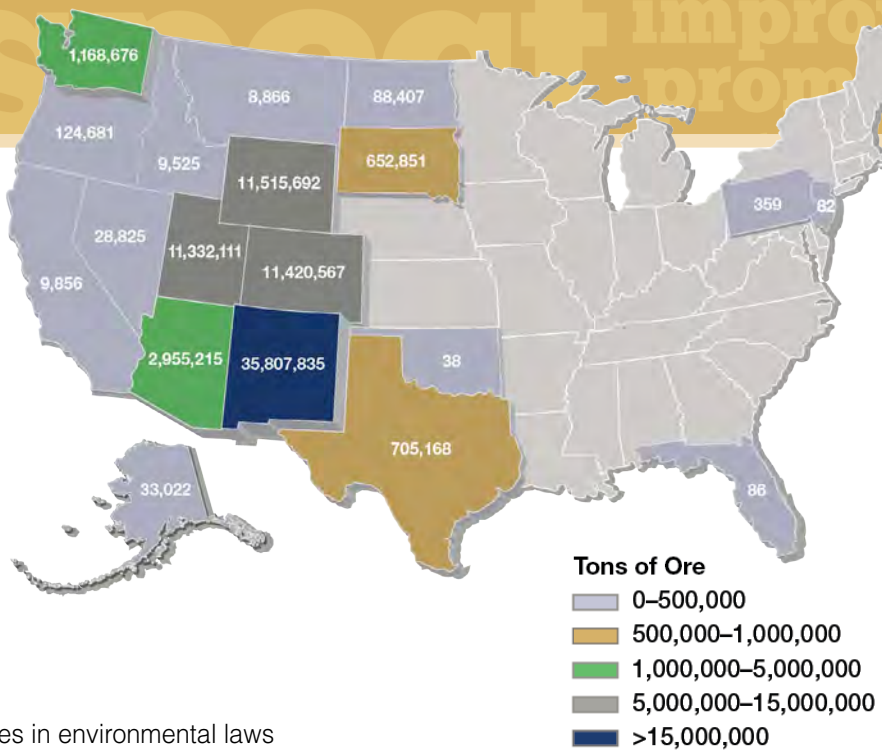


Objectives

1. **Comply with environmental laws and regulations related to radioactive and hazardous materials to prepare for receiving sites into LM.**

Strategies

- Work closely with federal, state, local, and tribal governments to set clear expectations and monitor results.
- Prepare, implement, evaluate, and update LTS&M plans to protect human health and the environment.
- Monitor and respond to proposed changes in environmental laws and regulations.
- Establish, maintain, and monitor ICs to ensure their integrity and efficacy.



Defense-related uranium mines by state and tons of ore they produced.

2. **Reduce post-closure-related health risks in a cost-effective manner.**

Strategies

- Consider the relative ranking of human-health and environmental risks of sites when prioritizing actions.
- Improve efficiencies by developing cost-effective and protective strategies.
- Develop risk-based, end-state approaches for groundwater compliance action plans that meet applicable regulations, while reducing risk, at a reasonable cost to the taxpayer.

3. **Improve the long-term sustainability of environmental remedies.**

Strategies

- Record and analyze data on long-term performance of radioactive and hazardous material storage sites and environmental treatment systems.
- Collaborate with organizations that conduct scientific research and development, in support of LTS&M objectives.
- Explore and advance innovative technical approaches (e.g., evaluate and use unmanned aerial vehicles to enhance data-gathering efforts) that improve LTS&M quality and inform remediation strategies.
- Develop changes to LTS&M plans that maintain compliance objectives and reduce costs.
- Assess the effect of climate change on environmental remedies and develop plans to mitigate significant impacts.
- Participate in IAEA efforts to develop guidance and recommendations for management—including post-closure care—of uranium and other legacy nuclear sites around the world.
- Work with regulators and other “legacy-type” site managers and organizations to share lessons learned and expand the operating experience and knowledge pool.

GOAL 1

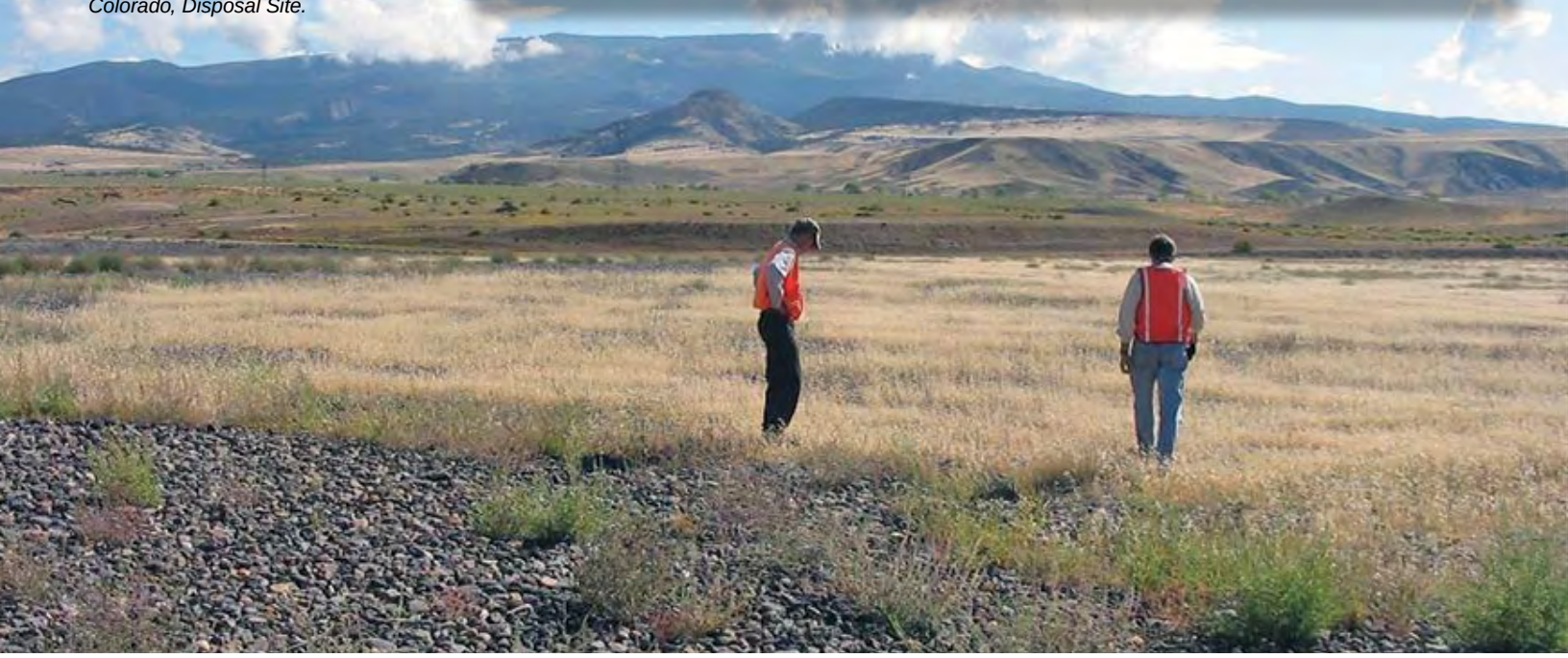
4. Address the environmental legacy of defense-related uranium mines and milling sites.

Strategies

- Improve data quality and content in the DOE national inventory of abandoned uranium mines and milling sites.
- Conduct site-specific reconnaissance at DRUMs for data validation and verification.
- Exchange mine information with other federal, tribal, and state governments to help address mines presenting the greatest risks.
- Facilitate timely responses to litigation requests by improving data and access documents related to to uranium milling sites and abandoned uranium mines.
- Collaborate with other governments, mining organizations, and industries to improve our technical understanding of mine and milling site reclamation and remediation options for conventional and in situ uranium mining.

Performance Measures

1. Periodic reviews and monitoring are completed on time and the results are accepted by our regulators as demonstrating remedy performance.
2. Post-closure requirements are met and final remedies are maintained in accordance with applicable laws. ICs are effective, durable, visible, and protective.
3. Baseline costs to operate, monitor, and maintain environmental remedies are reduced.
4. Periodic independent programmatic reviews validate the scientific and engineering soundness of site remedies and identify opportunities for risk and cost reduction.



Grand Junction, Colorado, Disposal Site.

Preserve, Protect, and Share Records and Information

Situation Analysis

GOAL 2

Records Management

The Department manages records consistent with legal and regulatory requirements, and complies with National Archives and Records Administration (NARA) and DOE guidance. As sites are identified for mission closure, remediated, and reassigned into LM authority, associated records and information are identified, transferred, and preserved. LM's ability to fulfill records preservation and information management responsibilities is enhanced by our NARA-certified LM Business Center (LMBC) facility—a state-of-the-art, climate-controlled storage area designed to maximize records-preservation capabilities. The facility is equipped to house 132,000 cubic feet of records materials, lower long-term records storage costs, and improve efficiency and responsiveness to stakeholders seeking information about America's Cold War-era nuclear sites.

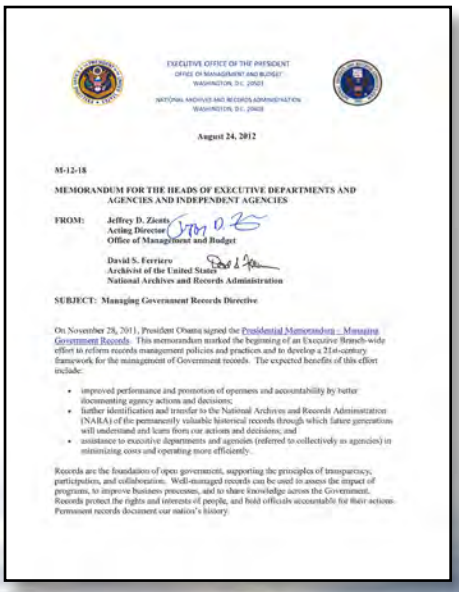
LM records requests remain steady, averaging approximately 1,800 requests per year since 2012. The majority of requests support U.S. Department of Labor efforts to process claims associated with the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). Although the number of requests is significantly smaller, the volume of documents per request under the Freedom of Information Act (FOIA) as well as the Privacy Act of 1974 (PA), requires a significant level of effort to meet statutory timeliness requirements. With the President's emphasis for open and transparent government through the use of electronic recordkeeping, and the LMBC reaching the end of its current lease during the 10-year planning period, LM should conduct a cost-benefit analysis on the efficiencies and effectiveness of continuing to operate and maintain its own NARA-certified records-storage facility.

OMB issued the Managing Government Records Directive (M-12-18). One of the directive's central goals is to "require electronic recordkeeping to ensure transparency, efficiency, and accountability." LM must be prepared to manage all permanent records in an electronic format by January 1, 2020, and manage both permanent and temporary email records in an accessible, electronic format by January 1, 2017. While this is not a significant departure from our current capabilities, it will require evaluation and acquisition of new tools to comply with these new requirements more efficiently and effectively.

Information Management

Improved use of information technology (IT) continues to be a key factor for enhancing LM workforce productivity. Balancing information sharing (mission enablement) and information safeguarding (mission assurance) in the future, when both demands are expected to increase, is a challenge. To accomplish this, LM will adopt a risk-based, decision-making IT governance process, which will improve effectiveness and operational efficiency.

Presidential memorandum that drives LM's records mission.



EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
WASHINGTON, D.C. 20408

August 24, 2012

M-12-18

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES AND INDEPENDENT AGENCIES

FROM: Jeffrey D. Zients
Acting Director
Office of Management and Budget

David S. Ferriero
Archivist of the United States
National Archives and Records Administration

SUBJECT: Managing Government Records Directive

On November 28, 2011, President Obama signed the Presidential Memorandum - Managing Government Records. This memorandum marked the beginning of an Executive Branch-wide effort to reform records management policies and practices and to develop a 21st-century framework for the management of Government records. The expected benefits of this effort include:

- improved performance and promotion of openness and accountability by better documenting agency actions and decisions;
- further identification and transfer to the National Archives and Records Administration (NARA) of the permanently valuable historical records through which future generations will understand and learn from our actions and decisions; and
- assistance to executive departments and agencies (referred to collectively as agencies) in minimizing costs and operating more efficiently.

Records are the foundation of open government, supporting the principles of transparency, participation, and collaboration. Well-managed records can be used to assess the impact of programs, to improve business processes, and to share knowledge across the Government. Records protect the rights and interests of people, and hold officials accountable for their actions. Permanent records document our nation's history.

NARA-certified LMBC.

Preserve, Protect, and Share Records and Information

GOAL 2

The IT governance we implement will align LM with the Federal Information Technology Acquisition Reform Act (FITARA), to centralize the authority of technology acquisitions to a single-agency chief information officer (CIO). The risk-based decision-making process ensures risks are understood and, when necessary, mitigated. Securing our systems demands constant vigilance by all LM staff. When new technologies emerge, (e.g., cloud computing), the process will allow options to improve operational efficiency. Lastly, this LM process creates a forum for the best ideas from the LM-user community to be consiered, evaluated, and implemented. Recently, LM has embarked on feature enhancements for the Geospatial Environmental Mapping System (GEMS), a publicly available system (http://gems.lm.doe.gov) that provides regulators and the public access to our LTS&M data. LM is also implementing the Environmental Quality Information System (EQuIS—an environmental-data management workflow software) to enhance and improve validation, loading, reporting, and visualization of our historical and future environmental data.

Preserve Yucca Mountain Project Records and Information

One of LM's ongoing responsibilities is preserving the science and information generated by the Yucca Mountain Project (YMP) in Nevada. In 2010, we assumed preservation responsibility for approximately 14,400 cubic feet of physical records, as well as more than 200 information systems containing over 96 terabytes of data that documented the science and information during the active life of the project. LM is responsive to stakeholders and researchers that have an ongoing need for YMP scientific information as they evaluate the best way for DOE to open a nuclear-waste repository. LM must carefully balance cost with the need to ensure that all information is accessible and readily available in a format that can be analyzed.

LMBC and DOE National Energy Technology Laboratory records emergency exercise participants discuss records disaster preparedness.

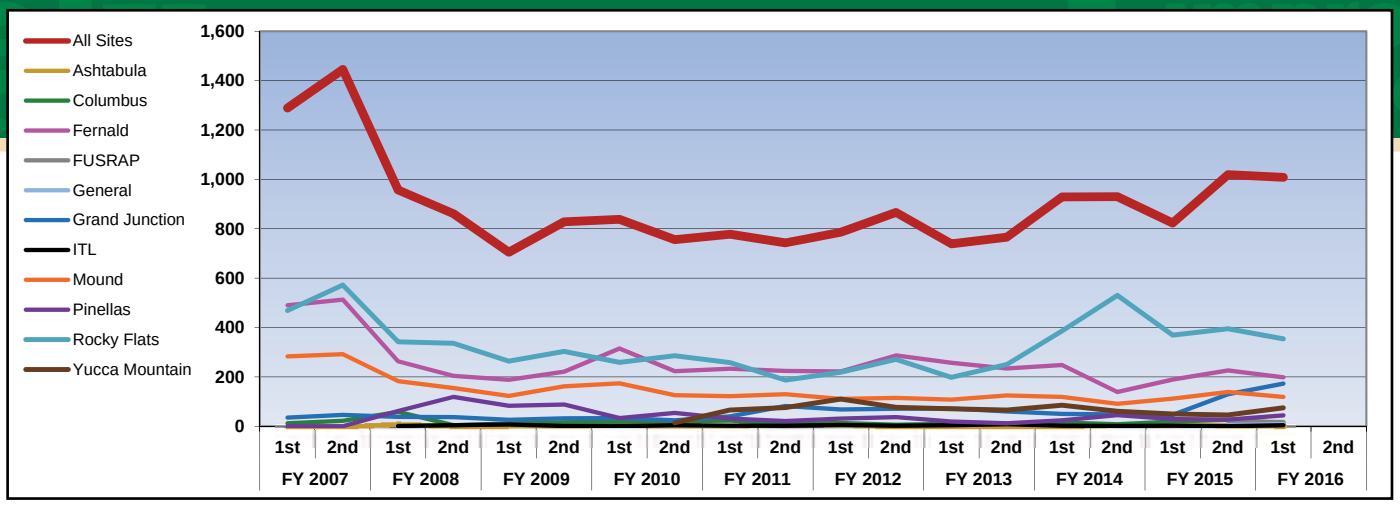
An LM contractor employee searches site records in response to a stakeholder request for information.

Objectives

1. Protect and maintain legacy records.

Strategies

- Proactively obtain records for pre-license transfer (transition) sites throughout the project life cycle.
- Improve the efficiency and effectiveness of managing LM records collections through modernization of the electronic tools.
- Continually pursue more efficient and effective physical warehousing organization and management processes.
- Evaluate new tools and techniques to improve the efficiency and effectiveness of managing LM's electronic information.
- Evaluate fully automating IT system surveillance and applying appropriate security measures to mitigate risks and strengthen cybersecurity programs.
- Evaluate and pursue opportunities to adopt efficient cloud-based solutions.
- Utilize the Federal Strategic Sourcing Initiative to leverage volume-pricing discounts.



LM records requests as of March 31, 2016.

LM's level of requests for records remains steady, averaging approximately 1,800 requests per year since 2012.

2. Make information more accessible.

Strategies

- Enable additional, and more user-friendly, public search and retrieval capability through website improvements.
- Digitize frequently requested portions of LM's physical holdings, when proven to be cost-effective.
- Continually evaluate new projects for "return-on-investment" to maximize the benefits and enhance the cyber capabilities LM provides to customers.
- Enhance GEMS (http://gems.lm.doe.gov), which provides the public with access to LM environmental and geospatial data associated with LTS&M.
- Implement an ICs tracking system that will ensure ICs are reviewed, evaluated, and being maintained.

3. Preserve Yucca Mountain Project science and information.

Strategies

- Evaluate hardware/software health and make necessary modifications and upgrades to maintain the full, functional capability of the Licensing Support Network.
- Continue to evaluate and implement necessary upgrades to maintain the Yucca Mountain Project Records Information System's capability to search and retrieve project records.
- Evaluate and implement cost-effective methods of preserving science and information associated with the Yucca Mountain Project.

Performance Measures

1. Requests for information are answered with high-quality, timely responses that meet or exceed legally mandated time requirements.
2. LM's information technology up-time meets or exceeds industry standards.
3. Control and (where possible) reduce baseline costs for managing hard copy records.
4. Control and (where possible) reduce baseline costs for managing electronic data and information.

Safeguard Former Contractor Workers' Retirement Benefits

GOAL 3

Situation Analysis

LM funds pensions and post-retirement benefits (medical and life insurance) for over 12,000 former contractor workers and their spouses. The Department oversees retirement benefits of former contractor workers at closure sites in a unique way for the federal government, in that the agency continues to fund the benefit programs after contract closeout, while maintaining and improving the quality of service to post-closure retirement plan participants. As such, DOE carries the risks of investment return volatility; changes in the bond market, which affect the interest rates used to value liabilities; medical inflation; and changes in legislation that affect funding pension plans long after the contract work is over.

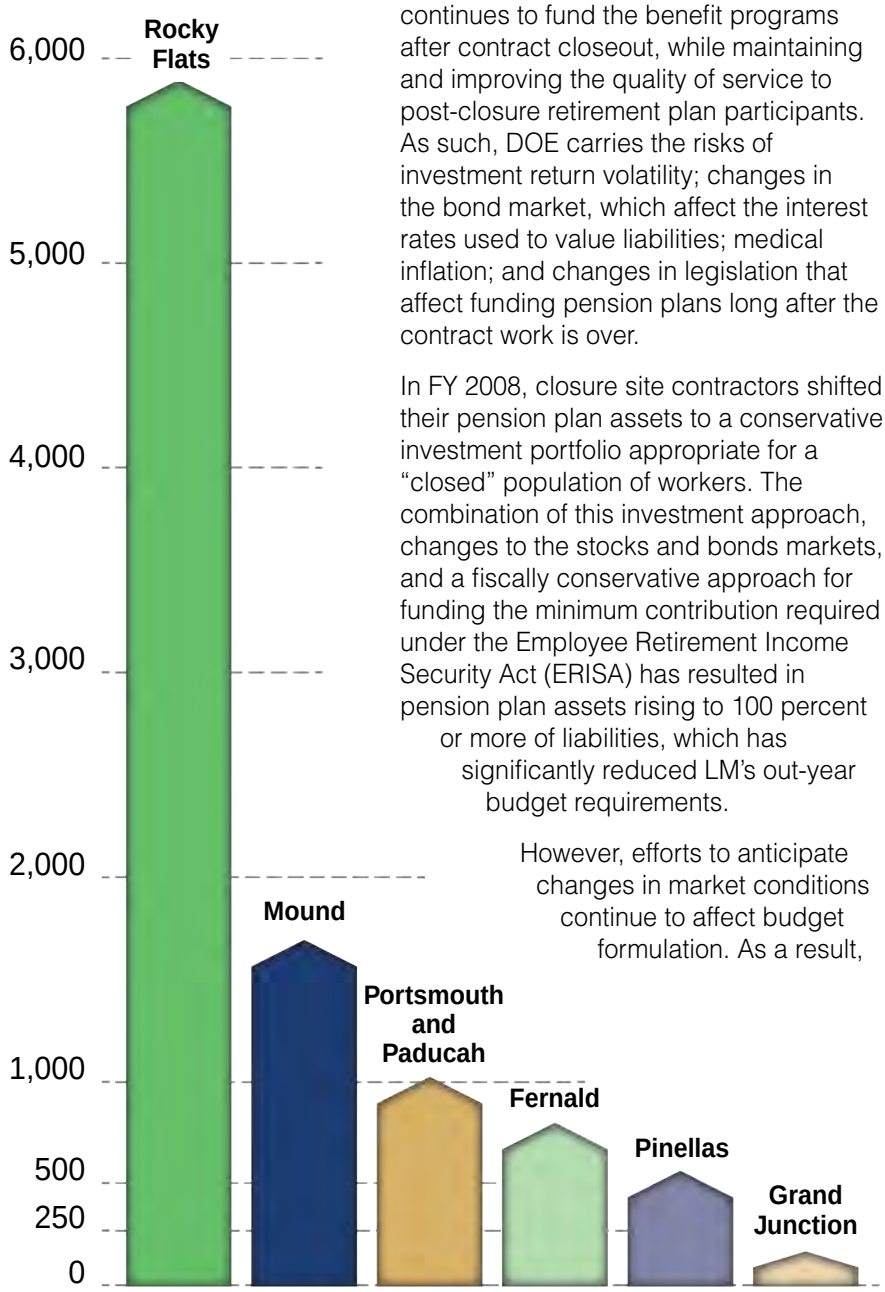
In FY 2008, closure site contractors shifted their pension plan assets to a conservative investment portfolio appropriate for a "closed" population of workers. The combination of this investment approach, changes to the stocks and bonds markets, and a fiscally conservative approach for funding the minimum contribution required under the Employee Retirement Income Security Act (ERISA) has resulted in pension plan assets rising to 100 percent or more of liabilities, which has significantly reduced LM's out-year budget requirements.

However, efforts to anticipate changes in market conditions continue to affect budget formulation. As a result, three closure-site contractors have requested and received Departmental approval to transfer the liabilities and assets of pension plans to insurance companies. This win-win situation (1) safeguards the former worker's pension benefits by eliminating the funding risk associated with an uncertain federal budget, and (2) frees up contractor and Department resources to address other issues. This action is consistent with Departmental policy (DOE Order 350.1).

LM will continue to implement strategies that reduce risks and control costs to contractor post-retirement benefits.

In FY 2015, half of LM's budget was used to fund contractor post-retirement benefits, with medical insurance accounting for the single largest outlay. This creates a significant funding risk for LM because (1) the cost of health care has been increasing faster than inflation, (2) a growing federal deficit has contributed to increased pressure to reduce or maintain the current level of federal spending, and (3) the full impact of the Affordable Care Act on retiree medical benefits remains unknown.

Two contractors have mitigated this funding risk by proposing and receiving Department approval to implement health reimbursement arrangements for retirees over the age of 65. This vehicle provides retirees with a fixed amount to be used to purchase Medicare supplemental insurance on the open market. Several other DOE contractors at the open sites have also adopted this method for continuing retiree medical benefits, which is also consistent with DOE Order 350.1.



LM retirees and spouses from LM closure sites covered by retiree medical plans through FY 2015.

We will continue to implement strategies that reduce risks and control costs to contractor post-retirement benefits. LM expects that contractor actions to replace retiree pension plans with lump sum buyouts and insurance company annuities, and implementation of health reimbursement arrangements (for retirees eligible for Medicare) will continue. We will continue working closely with an intra-agency working group, contractor staff, and independent actuarial firms to understand the latest practices being considered by the nation's retirement benefit communities, to safeguard retirement benefits while controlling costs.

An LM staff member at a reunion of former Fernald, Ohio, production workers.

Objectives

1. **Ensure prudent funding of former contractor workers' retirement benefits.**

Strategies

- Use multi-year, post-retirement benefit projections by federal actuaries and independent consultants to review annual contractor-cost estimates.
- Use a fiscally conservative approach to estimate, and budget for, the funding necessary to meet contractor pension and health care commitments.

2. **Shelter former contractor workers' retirement benefits from risks.**

Strategies

- Review and support, as appropriate, contractor efforts to annuitize pension benefits from an insurance company, and to mitigate rising retiree health care costs through health reimbursement arrangements.
- Evaluate the potential impacts of health care legislation and out-year funding restrictions for the ability to maintain contractor health care plans at current levels.

Performance Measures

1. Legacy benefits (retired-contractor pension checks and medical and life insurance payments) are delivered on time.
2. The systems in place to predict pension and post-retirement benefit funding requirements are reliable.
3. Business cases related to contractors' proposals to change pension and retiree medical benefits are developed and submitted for Secretarial approval on a timely basis.

Sustainably Manage and Optimize the Use of Land and Assets

GOAL 4

Situation Analysis

LM maintains environmental remedies and manages federal land in a manner that is protective of human health and the environment. In addition, many LM sites have unique and irreplaceable natural, historic, and cultural heritage resources. The LM site responsibility in 2025 is expected to be distributed across 30 states and the Territory of Puerto Rico.

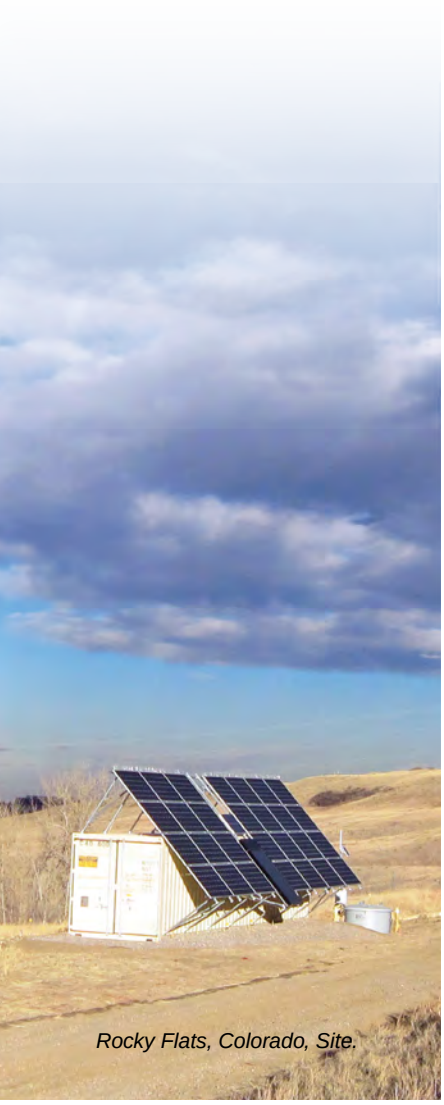
Currently, more than one-third of LM's federally owned sites are in reuse.

Sustainable, Long-Term Management

A major challenge that LM has in managing our sites is to work sustainably while being compliant with federal, state, and tribal regulations. We are proud of LM's Joint Environmental Management System (EMS) program accomplishments. However, Executive Order 13693 of March 19, 2015, *Planning for Federal Sustainability in the Next Decade,* set new targets to meet in several areas, including:

- Energy efficiency
- Water conservation
- Greenhouse gas reductions
- Renewable energy use
- Use of zero-emission and plug-in hybrid vehicles

The long time frame over which LM sites must remain protective means we must account for the potential impacts of climate change and how remedy performance and natural resources might be affected. LM also considers the environment when managing the nine sites where federal and contractor employees are located. Whether we lease or own, we plan to promote High Performance and Sustainable Building (HPSB) guiding principles and strive to meet Leadership in Energy and Environmental Design (LEED) criteria.



Rocky Flats, Colorado, Site.

Beneficial Reuse

LM will continue to place more sites into beneficial reuse and partner with other agencies and organizations so our sites contribute to regional goals. Currently, more than one-third of LM's federally owned sites are in reuse. For example, the Fernald, Ohio, Site—a 1,050-acre former uranium processing facility—has been restored to its pre-settlement condition with grasslands, wetlands, and hiking trails. A visitors center at Fernald helps tell the story of the site from a time before it was developed as a weapons complex site, to its cleanup and reuse today.

Disposal (i.e., sale or transfer) of LM federally owned properties will remain a priority as a means of reuse. The 2014 transfer of approximately 80 percent of the Rocky Flats site in Colorado to the U.S. Fish and Wildlife Service is a great reuse example of a former nuclear weapons production facility. LM manages a number of sites that are adjacent to other federal and state public lands. At these sites, LM can contribute to watershed or regional conservation, and land management initiatives. For example, in 2015, LM joined the Dolores River Restoration Partnership, a consortium of federal, state, and local agencies; nonprofit organizations; and individual land owners who are controlling invasive species and restoring native plants in the riparian corridor of the Colorado River. A 3-mile section of the Dolores River flows through a Uranium Leasing Program (ULP) tract that LM manages.

LM has recently screened current sites and sites to be transferred for opportunities to contribute to other such partnerships. The Conservation Reuse screening and related activities will also be part of LM's strategy for addressing the October 2015 Executive Memorandum, "Incorporating Ecosystem Services into Federal Decision Making" and for meeting the objectives of the May 2015, White House-issued *National Strategy to Promote the Health of Honey Bees and Other Pollinators.*

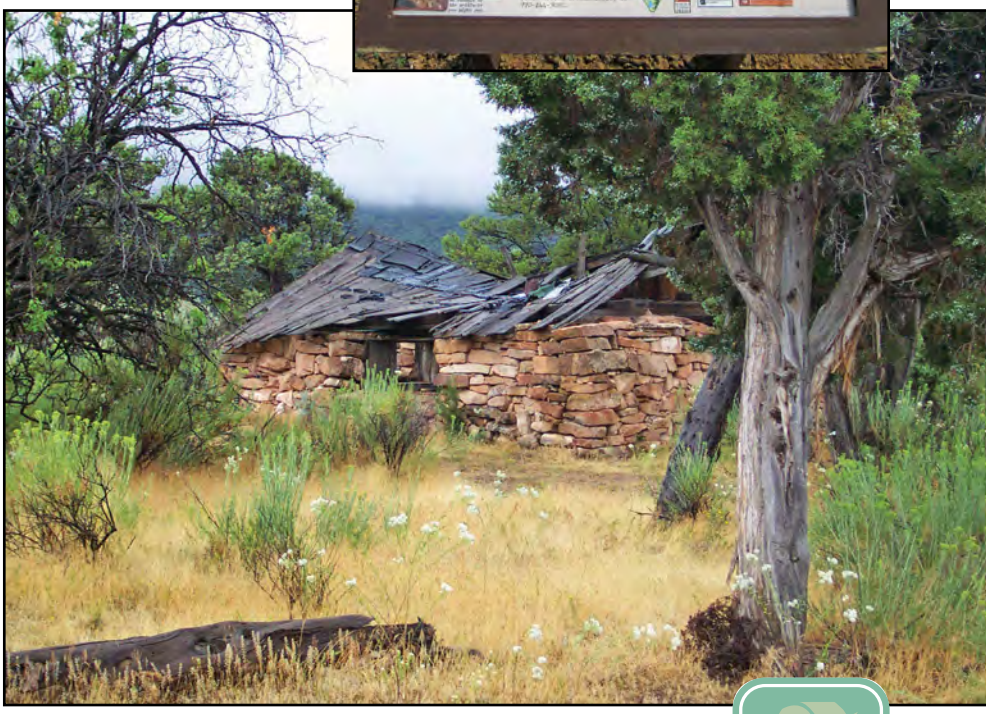
Beneficial reuse is not just limited to land; it also applies to personal property. We recently donated no-longer-needed computers and other IT equipment to the schools of one our tribal partners. LM property reuse is consistent with the tenets of public health and safety; sustainability; federal, state, local, and tribal law; and with heritage resource management best-management practices.

Some transferred LM land and sites have restrictions due to contamination that remains in the subsurface or is safely contained in disposal cells. Communicating the significant histories of these sites, the cleanup effectiveness, and the residual risks to stakeholders helps ensure that the sites are used in a manner that does not pose human or environmental risks. LM is beginning to use interpretive history as a means to address this. For example, LM is assisting the U.S. Forest Service in developing interpretive displays at the site of the 1967 Gasbuggy underground nuclear test in New Mexico, which was conducted as part of the Plowshare Program. Subsurface radiological contamination from the test remains.

As stewards of 25,000 acres of land, ULP manages the old and new sites. An example is Calamity Camp, a community of old stone houses and earthen dugouts that date back to the early 1900s.

Uranium Leasing Program

In addition to work on former uranium milling sites and abandoned uranium mines, LM manages 31 lease tracts (29 active) in western Colorado, where private companies can mine uranium and vanadium. ULP tracts (approximately 25,000 acres in total area) are leased on a competitive-bid basis to mining companies that operate under terms of agreements that include payment of annual and production royalties to the U.S. Department of the Treasury. A programmatic environmental impact statement (PEIS) for the ULP was completed in 2014. In accordance with the Record of Decision (ROD), LM plans to manage exploration, mine development, mining, and reclamation for 10 more years —the decade covered by this plan.[1]



ULP management is an opportunity for LM to demonstrate responsible lifecycle uranium mining. The leases require actions to mitigate potential environmental impacts at all mining-cycle stages, including mine reclamation when production ends. Additionally, the ULP is an opportunity for the Department to support U.S. mining companies in their efforts to provide a domestic supply of uranium. The ULP helps to alleviate concerns about reliance on foreign uranium reserves.

[1]After DOE issued its PEIS and ROD for the ULP, DOE filed, with the U.S. District Court for the District of Colorado, a motion to dissolve the court's injunction of the ULP. The court had issued its injunction in October 2011, and modified it in February 2012 to allow DOE, other government agencies, and the uranium lessees to conduct certain necessary activities on the ULP leases. The parties are continuing to brief this issue before the court. *See Colorado Environmental Coalition v. Office of Legacy Management, No. 08-cv-01624 (D. Colo.).*

Sustainably Manage and Optimize the Use of Land and Assets

GOAL 4

Objectives

1. **Enhance sustainable environmental performance for facilities and personal property, and account for climate change in LM site management.**

   Strategies

   - Meet or exceed new federal-agency goals that include further reducing greenhouse gas emissions, water-use intensity, and the percentage of energy obtained from renewable sources, among others.
   - Understand regional climate-change predictions and evaluate potential impacts of these changes on the performance of remedies and facilities at LM sites.
   - Ensure new and existing facilities, whether leased or owned, adhere to HPSB principles, and achieve LEED goals.
   - Ensure that acquisition and maintenance of IT and other personal property are implemented in accordance with all applicable environmental advocacy programs, including the ENERGY STAR and WaterSense programs.

2. **Optimize public use of federal lands and properties.**

   Strategies

   - Promote beneficial use and development of renewable energy projects, and parks on LM sites that remain in federal ownership.
   - Collaborate with government and private entities, tribal nations, and nonprofit organizations to enhance land use and contribute to regional conservation initiatives.
   - Identify, protect, and preserve important natural, cultural, and historic features on LM sites.
   - Evaluate the need and eligibility to protect historic features at LM sites under the National Historic Preservation Act, and similar state and local designations.
   - Use screening results of existing LM sites (and those that will transfer to LM by 2025) to collaborate with other agencies and organizations on regional conservation initiatives.

Indoor and outdoor activities for all ages are available at the Fernald Preserve in Ohio.

The Wayne, New Jersey, Site was cleaned up by the U.S. Army Corps of Engineers to unrestricted-use standards. In 2003, EPA verified that all remedial action had been completed. DOE transferred the property to Wayne Township under the National Park Service's Lands to Parks Program in 2006 and the Township constructed a public playground and dog park on the site.

3. Transfer excess real and personal government property.

Strategies

- Transfer real property no longer needed for LM site management to other agencies, tribal nations, or individuals for beneficial reuse.
- Apply federal regulations and programs when disposing of excess government personal property, including IT equipment, to other federal agencies, nonprofit groups, schools, and tribal nations.

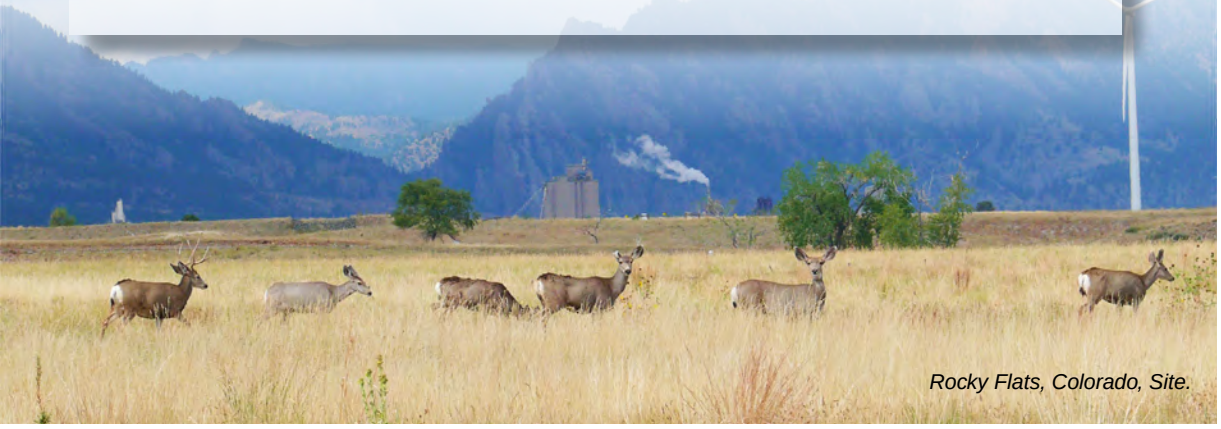
4. Manage the ULP.

Strategies

- Ensure that ULP lease holders meet all compliance requirements and implement mitigation measures while conducting mine exploration, development, operation, and reclamation.
- Facilitate domestic uranium production from ULP tracts to help mitigate concerns about reliance on foreign uranium supplies.
- Remain aware of developments in mining technology and monitor developments in mineral extraction, reclamation, and remediation, such as in situ recovery of uranium.

Performance Measures

1. Meet or exceed new sustainability goals for federal agencies.
2. Reduce long-term facility operating costs and minimize the use of natural resources through adherence to HPSB guiding principles.
3. Increase the number of LM sites in federal ownership that are put to beneficial reuse.
4. Manage the ULP so there are no environmental-compliance violations. Fully implement the 2014 Mitigation Action Plan and measure its effectiveness.



Rocky Flats, Colorado, Site.

GOAL 5

Situation Analysis

In 2012, a proposal was submitted to OMB to extend LM's designation as a high-performing organization (HPO). To sustain the designation requirements, we will continue to operate within the set of parameters that were negotiated by LM, the DOE Office of Management, and OMB, from LM's original HPO designation in February 2007. The parameters include federal staffing levels, budget allocations, acquisition strategies, and program outcomes and performance measures.

Planning, Budget, and Acquisition

Since the organization's inception, the President and Congress have acted in concert to provide LM with sufficient funds to carry out our mission. Congressional appropriations are distributed using a variety of procurement mechanisms, including agreements with national laboratories, states, and tribes, with the largest one being a small-business, nation-wide, technical-support contract. To facilitate governmental, regulatory, and tribal interactions, LM uses a variety of grants, cooperative agreements, and interagency agreements. Our current nation-wide, technical-support contract is for 5 years; in FY 2020, LM will need to award a new contract.

Project Management

LM places high priority on using project management principles and tools to manage activities. An emphasis on sound project management is consistent with the Energy Secretary's direction provided in a June 8, 2015, memorandum entitled Project Management Policies and Principles. LM uses a graded approach for project management that is appropriate for large environmental projects, complex IT system development, and collaboration with other parts of the Department and other federal agencies.

The LM Rifle, Colorado, Site Manager describes features of the site to IAEA members.

LM places high priority on the use of project management principles and tools to manage activities.

Human Resources

LM's mission scope and functions will continue to grow as sites are cleaned up, closed, and transferred into the program. LM plans to receive 30 additional sites between FY 2016 and FY 2025 and will need additional site managers and personnel to provide essential support services (e.g., realty officers to acquire ICs at a number of those sites). LM's role in an interagency effort to address the impacts of defense-related uranium mines (DRUMs) may require additional staff resources. There will be a continued need for more federal staff and a broader skill base.

We will need to work hard to maintain our goal of management excellence as federal staff retire and our work load increases and evolves. LM will continue current recruitment strategies to hire the best talent we can from the private sector, the Department, and other federal agencies.

One of LM's Core Values is, "People are our most important resource. We respect and use our experience and skills and appreciate our diversity." LM's demographics demonstrate that we are a very diverse organization.

LM must address a serious problem facing the federal government as a whole—an aging workforce. The current average age of LM's federal staff is 49, with over one-third of the staff and a majority of the managers fully eligible for retirement. We are keenly aware of the importance of knowledge management to LM's success. We will need to take additional steps to address the potential negative effects of an aging workforce.

To sustain management excellence, LM will continue to encourage employees to take the annual U.S. Office of Personnel Management (OPM) Federal Employee Viewpoint Survey (FEVS) and take action based on those results. For the past several years, LM has had a participation rate of over 90 percent. The LM management team takes the results of this yearly survey seriously. Each year action plans are developed to address areas within the survey that fall below the DOE average, and to address employee concerns.

During the 2015 LM All-Hands Training in Ohio, LM staff are shown the wastewater treatment process at the Fernald site (above), and are briefed on the draft of the new LM Strategic Plan (below).

Administrative Excellence

LM will continue to strive for administrative excellence. This includes having a customer-oriented environment. We want our customers to feel connected to us and have positive experiences. We will work closely with our customers and embrace their different needs, considerations, and concerns.

Objectives

1. **Develop and maintain high standards for planning, budget, acquisition, and project management.**

   Strategies

   - Develop, maintain, and review, procedures for major financial-management functions that incorporate sound project- and business-management practices.
   - Fully examine the most cost-effective methods, such as small-business contracts, cooperative agreements for the U.S. General Services Administration, or design-build contracts for major efforts.
   - Encourage project management training and associated certifications.
   - Use a transparent corporate approach to managing our financial resources.

2. **Sustain a talented, diverse, inclusive, and performance-driven workforce.**

   Strategies

   - Develop and retain a best-in-class workforce through recruitment of diverse talent.
   - Promote a performance-based culture. Ensure the federal and contractor workforces are properly incentivized and rewarded.
   - Actively develop strong LM leaders through leadership development programs.
   - Encourage employee development by using rotational assignments, supporting intra-agency details, and providing funding for training.

GOAL 5

3. Improve the efficiency and effectiveness of administrative actions.

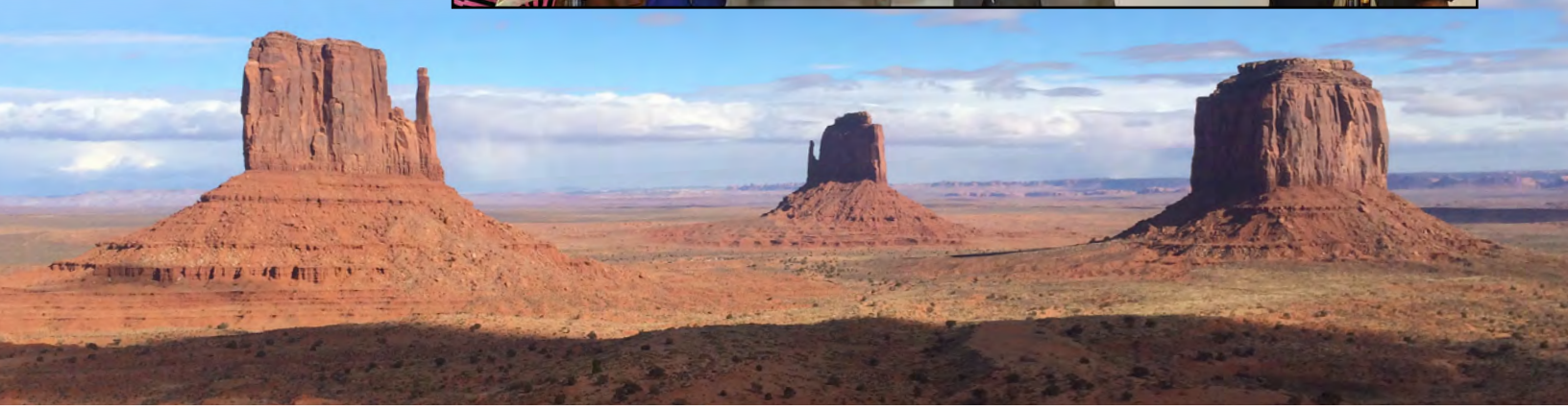
Strategies

- Embrace a continual service-improvement culture.
- Balance effectiveness and efficiency in delivery of services.
- Build customer satisfaction and empowerment with relevant information and service.

Performance Measures

1. Over 90 percent of actions identified in the *LM Human Capital Management Plan* (HCMP) are implemented.
2. OPM FEVS results show that LM is one of the best organizations to work for, not only in DOE, but in the federal government.
3. Within 5 years, all identified LM personnel received applicable and relevant project management training and associated certification levels.
4. Contribute to efficient and high-quality office functions by providing timely, high-quality administrative assistance including email, correspondence, scheduling, and presentations. Work should be consistently accurate and completed by deadlines.

Ribbon-cutting ceremony to unveil the LM history display at the Forrestal Building in Washington, DC.



Monument Valley, Arizona.

Engage the Public, Governments, and Interested Parties

Situation Analysis

Outreach to the public, intergovernmental collaboration, and effective dialog with tribal nations are integral to LM work. Across the organization, LM management and staff recognize that engaging the public and governmental organizations is critical to achieving nearly all organization objectives. Although communication is an ongoing challenge, given LM's diverse and geographically distributed stakeholders, our success depends on connecting and effectively communicating with the public, other government organizations, and tribal nations.

LM understands that two-way communication with engaged stakeholders is critical and valuable. One advantage of two-way communication is the benefit to LM from observant stakeholders and employees of other agencies, especially at remote sites. LM relies on residents living near some of our most remote sites to help maintain site integrity (e.g., mending fence breaks that allow livestock access). Community members have also been helpful in notifying LM of localized natural events (e.g., flash floods) that might require LM to conduct additional inspections and repair work at a site.

LM will continue to seek ways to measure and improve stakeholder satisfaction. We conducted stakeholder surveys in 2005, 2012, and 2015, to obtain comparative performance feedback. LM will also improve stakeholder engagement by enhancing vertical integration of outreach activities within the organization. Policy and a wide range of goals that are developed at a national level will increasingly be more site and program specific and be implemented at the team level. Such vertical integration will ensure that important information is shared consistently across the broad spectrum of LM's public, intergovernmental, and tribal nation partners.

For over a decade, DOE and the National Park Service (NPS), in cooperation with other federal agencies, state and local governments, and stakeholders, discussed the possibility of including the Department's most significant Manhattan Project properties within a national Manhattan Project park. After numerous studies and several draft bills, Congress authorized creation of the Manhattan Project National Historical Park in the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for FY 2015, Public Law 113–291. President Obama signed the bill into law on December 19, 2014. On November 10, 2015, Energy Secretary Ernest Moniz, and Secretary of the Interior Sally Jewell, signed a Memorandum of Agreement that officially established the Park. Implementation of this Act may have implications for the conduct of the LM mission.

GOAL 6

Outreach to the public, intergovernmental collaboration, and effective dialog with tribal nations are integral to LM work.

Engaging the Public

LM public engagement efforts currently include the following:

- Quarterly LM *Program Update* newsletter—sent to more than 6,000 individuals.
- Internet website—visited by nearly 2,100 people daily.
- Interpretive centers at the Weldon Spring, Missouri, Site and the Fernald Preserve in Ohio.
- Site visits for regulators, tribal nation representatives, and other members of the public.
- Formal and informal consultation with tribal nations.
- Web-based videos and webinars.
- Publications in peer-reviewed journals.
- Press releases.
- Hosting public meetings.
- Participating in professional meetings.

The log cabin at the Grand Junction, Colorado, office, was recently nominated for inclusion on the National Register of Historic Places. It is scheduled to be transformed into a learning center by fall 2017.

Engage the Public, Governments, and Interested Parties

GOAL 6

Stakeholders today expect timely access to information that is delivered in a user-friendly fashion. LM is engaged in a major effort to enhance access to data through our Internet-based Geospatial Environmental Mapping System (GEMS). Interactive, web-based tools provide customized reporting on multiple data types to personnel and stakeholders.

Interpretive centers are also proven, effective means of connecting with the public. In addition to our existing visitor centers at the Weldon Spring site and the Fernald Preserve, LM is evaluating partnerships with other government agencies, museums, and educational institutions to expand access to both current and legacy information. Finally, LM is evaluating ways to better preserve Cold War history. Preserving our sites' histories is a key element in protecting future generations from long-lived residual contamination.

Weldon Spring, Missouri, Site Interpretive Center history exhibit.

Working with Local, State, and Federal Governments

LM has been, and will stay, active with other national organizations including the Energy Communities Alliance, the National Governors Association, the National Association of Attorneys General, and the National Conference of State Legislatures. We work closely with state and federal regulators to share information, collaborate on environmental solutions and public meetings, and to understand and address potential impacts to surrounding areas.

In many cases, LM also works closely with local governments on reuse and economic opportunities, and to ensure sites remain protective of human health and the environment. Local government engagement is important to LM's success. For example, ICs such as deed restrictions are often enforced by local governments. Increasingly, federal agencies also rely on intergovernmental collaborations to accomplish their missions. LM put two new sites into beneficial reuse in 2015 as a result of collaborations with other agencies and organizations.

Working with Tribal Nations

LM is committed to effective dialog with tribal nations to make informed decisions that comply with environmental and historical preservation laws, regulations, agreements, and tribal treaty rights, and to demonstrate respect for natural and cultural resources. LM currently conducts LTS&M on sites located on or near—or historically used by—eight tribal nations. Cooperative agreements and grants for affected tribes provide financial support for technical oversight of LM's activities on their lands. We have learned from our engagement with Native Americans that an approach to waste isolation that works with the natural environment can be more acceptable to stakeholders and often more sustainable, as well. Through research and

projects, summer interns and graduate students have provided valuable input to LM work. In Alaska, LM participates in an annual environmental forum, which is an important opportunity for us to interact with Alaska Natives and state corporations.

An important national forum for policy development of remediation and post-closure management at DOE sites is the State and Tribal Government Working Group (STGWG), comprised of policy-level representatives from 16 states and 10 tribal nations. LM has, and will continue to be, a participant in tribal summits organized by cabinet-level agencies such as DOE.

Effective engagement with tribal nations is a critical component of several important LM initiatives and programs, such as the Navajo Nation Five-Year Plan. The purpose of the Plan is to coordinate and integrate federal agency activities to address the impacts of past uranium mining and milling contamination on the Navajo Nation. In addition to DOE, participating agencies include EPA (lead agency for the Plan), the Centers for Disease Control and Prevention (Department of Health and Human Services), the Bureau of Indian Affairs (Department of the Interior), Indian Health Service, and the U.S. Nuclear Regulatory Commission (NRC). The original plan was created in 2007 and updated in 2014, building on information gained and lessons learned.

IAEA members learn about sampling and monitoring techniques at the Rocky Flats, Colorado, Site during a tour of LM facilities in Colorado and Utah.

Environmental Justice

LM has ensured that site management activities comply with Executive Order 12898 of February 11, 1994, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. By continuing to review, plan, and implement commitments through the lens of environmental justice (EJ), we have made significant progress in engaging minority and low-income communities, including tribal communities, in the decision-making process. This is reflected through ongoing LTS&M activities, such as LM's participation in the second Five-Year Plan, *Federal Actions to Address Impacts of Uranium Contamination in the Navajo Nation,* as well as rehabilitation and community reuse of former defense nuclear facilities and other properties.

During a Northern Arapaho public meeting, the LM Riverton, Wyoming, Disposal Site Manager explains the extent of contamination at the site.

In addition to ensuring community involvement in decision-making, we have also continued to pursue educational partnerships for the public, working with a variety of culturally distinct communities. The partnerships include public open-house sessions at LM-managed sites, educational opportunities, student site visits, and internships that provide hands-on mentoring and work experience at LM's Grand Junction, Colorado, Site. Training sessions on tribal culture, regulations, and environmental ethics are conducted for LM staff on a regular basis. We also continue to play a key role in federal-wide efforts to provide training to all federal employees and promote a national dialogue on EJ.

Engage the Public, Governments, and Interested Parties

GOAL 6

Objectives

1. Engage the public in our program, project, and site activities.

Strategies

- Adapt communication methods to those that are most effective or preferred by the public. Communicate broadly through the web and new media tools.
- Expand and enhance visitor center operations at LM sites. Communicate the importance of current LM activities as well as each site's role in the history of the Cold War.
- Preserve, protect, and interpret the histories of LM sites, including their roles in the Cold War. Work collaboratively with NPS and Manhattan Project National Historical Park sites.
- Analyze feedback from Internet use to modify approaches and improve outreach.
- Provide training to improve LM employees' public engagement skills.

2. Work effectively with local, state, and federal governments and nonprofit organizations.

Strategies

- Build and maintain effective intergovernmental partnerships.
- Actively participate in collaborative efforts that are important for LM to meet performance goals (e.g., interagency work on DRUMs), and identify new beneficial site-reuse opportunities.
- Use intergovernmental relationships as a means of sharing lessons learned.

Posters and a groundwater flow model were displayed for stakeholders attending the uranium issues open house near the Monument Valley, Arizona, Site.

3. Consult, collaborate, and partner with the people and governments of tribal nations.

Strategies

- Participate in national forums that involve tribal governments such as STGWG and the Tribal Leaders Summit hosted by the U.S. President and the Energy Secretary.
- Partner with tribal nations through the National Environmental Policy Act process. Fulfill engagement commitments by implementing programmatic agreements for ULP and other programs.
- Provide LM internship opportunities for a diverse pool of qualified and interested students and scholars.
- Seek to have native-language speakers available to enhance communication during outreach events with different tribal nations.
- Engage tribal nations regarding ways to improve LTS&M effectiveness in order to better understand their concerns, keep them informed, ask for and listen to their input, and involve them in decisions.

4. **Support development of the Manhattan Project National Historical Park.**

Strategies

- Determine what work DOE can undertake to support immplementation of the Park.
- Collaborate with NPS on planning activities and to provide historical information concerning the Manhattan Project.
- Work with the DOE Office of History and Heritage Resources and NPS to identify projects, programs, and new partnerships (cooperative agreements, philanthropy) to support the Park, consistent with the National Defense Authorization Act and other authorities.

5. **Implement Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, within LM.**

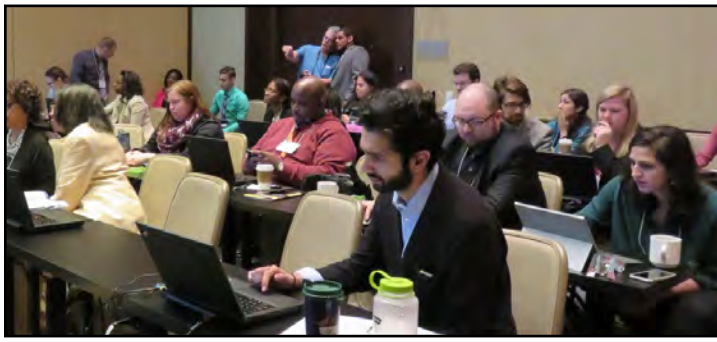
Strategies

- Provide high-quality EJ training to the LM workforce.
- Identify and reach out to EJ communities and leaders near LM sites.
- Partner with EJ communities to address environmental concerns.
- Leverage Department and other federal agency EJ work.

Performance Measures

1. Overall stakeholder survey results identify higher levels of satisfaction regarding LM communication.
2. Attendance at existing visitors centers continues to increase and new centers show an upward visitation trend over time.
3. LM website content, articles in the LM quarterly newsletters, and information provided through other media reflect the subjects that are of most interest to stakeholders.
4. New intergovernmental collaborations are formed and their value is documented and/or measured.
5. Measure feedback on engagement activities that are tailored to the history, interest, and needs of different tribal nations.
6. Periodic reviews of the EJ strategies used to inform, stimulate, and involve the public.

DOE is involved with supporting the development of the Manhattan Project National Historical Park.



2016 National Environmental Justice Conference and Training Program *attendees at the Educate, Motivate, and Innovate Initiatives inaugural student climate change workshop.*

Lobby display at the National Environmental Justice Conference and Training Program.

Performance Measures

Performance information is used to lead, learn about, and improve outcomes. We need to carefully consider and then monitor the implementation of performance measures, as they can heavily influence program priorities and direction. As a relatively small federal program, LM is usually limited to one or two performance measures in the President's budget. However, we can establish additional performance measures as part of our HPO commitments with OMB, as well as internal measures as part of our normal procedures.

In this plan, performance measures (program level and lower tier) were identified for each goal. LM is working within the Department and with OMB to establish program-level performance measures for the next 5 years (FY 2016 through FY 2020). The measures listed below are under consideration as the primary indicators of LM's overall programmatic performance. We will use other performance measures identified in this plan at various levels within the organization.

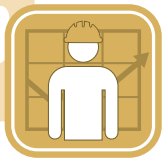
GOALS

Goal 1

- Post-closure requirements are met and final remedies are maintained in accordance with applicable laws and other requirements.
- The cost to maintain environmental remedies is reduced from an approved and validated baseline.

Goal 2

- The cost of managing hard-copy records decreases, from the baseline, each year on a per-unit volume basis.
- The cost to manage electronic data and information decreases each year, from the baseline, on a per-terabyte basis.
- LM stakeholders and regulators are satisfied with their access to site environmental information.



Goal 3

- Legacy benefits (retired contractor pension checks and medical and life insurance) are delivered on time and comply with DOE guidance.

Goal 4

- New sustainability goals for federal agencies are met or exceeded.
- More LM sites are put into beneficial reuse, and excess real and personal federal property is transferred to other agencies, organizations, and individuals for use.
- Manage the Uranium Leasing Program.

Goal 5

- Develop and maintain high standards for planning, budget, acquisition, and project management.
- Utilize workforce planning methods to recruit, maintain, and cultivate a strong federal and contractor workforce.
- Reduce the cost and improve the effectiveness of administrative services.

Goal 6

- Stakeholder surveys indicate increased satisfaction with how LM communicates.
- Partnerships with other governments result in lower costs and more effective solutions.

Program Evaluation

LM's performance is evaluated by a diverse group of organizations in a variety of ways. Evaluation processes, internal and external to the Department, serve as constant reminders that we must not only do the job we are assigned to do, but do it well. LM and our contractors also have self-assessments and internal audits to determine performance and cost effectiveness.

Organizations that review LM performance include local, state, and federal government agencies and tribal nations. Local governments participate in a bi-annual survey conducted by the Energy Communities Alliance; the survey evaluates the major DOE programs with site (and community) responsibilities. At many LM sites, state agencies serve either as environmental regulators or they own land adjacent to our sites. At the federal level, LM is regulated by DOE, EPA, and NRC. The General Accountability Office reviews several aspects of LM's mission.

Within the Department, specific areas of performance are evaluated by the Inspector General; the Chief Financial Officer; the Office of Environment, Health, Safety and Security; the Office of Enterprise Assessments; the CIO; the Office of Management; the Office of Human Capital; as well as other organizations. The Under Secretary for Management and Performance reviews LM's overall programmatic performance on a regular basis.

Finally, LM receives feedback (formal and informal) from members of the communities near our sites, and from retired contractor workers who receive pension checks and health benefits from contractors funded by LM. Individual stakeholders near LM sites and retirees are the taxpayers who are most affected by LM's activities.

LM's internal evaluations and audits include reviews of our contractors' performance, our own assessment of programmatic performance, and individual federal employee reviews within the context of a federal employee performance management system.

Evaluation processes, internal and external to the Department, serve as constant reminders that we must not only do the job we are assigned to do, but do it well.

Grand Junction, Colorado, Office.

Strategic Plan Definitions

Cleanup
The process of addressing contaminated facilities and materials according to applicable requirements. Cleanup does not imply that all hazards will be removed from a site. This function includes stabilizing contaminated soil; treating groundwater; decommissioning process buildings, nuclear reactors, chemical separation plants, among other facilities and activities; and excavating sludge and buried waste drums. “Remediation” is often used synonymously with cleanup.

Disposition
Reuse, recycling, sale, transfer, storage, treatment, or disposal.

Engineered Controls
Includes radioactive, hazardous, and sanitary landfills; vaults; repositories; in situ stabilization; residual contamination caps; or other man-made controls designed to isolate or contain waste or materials.

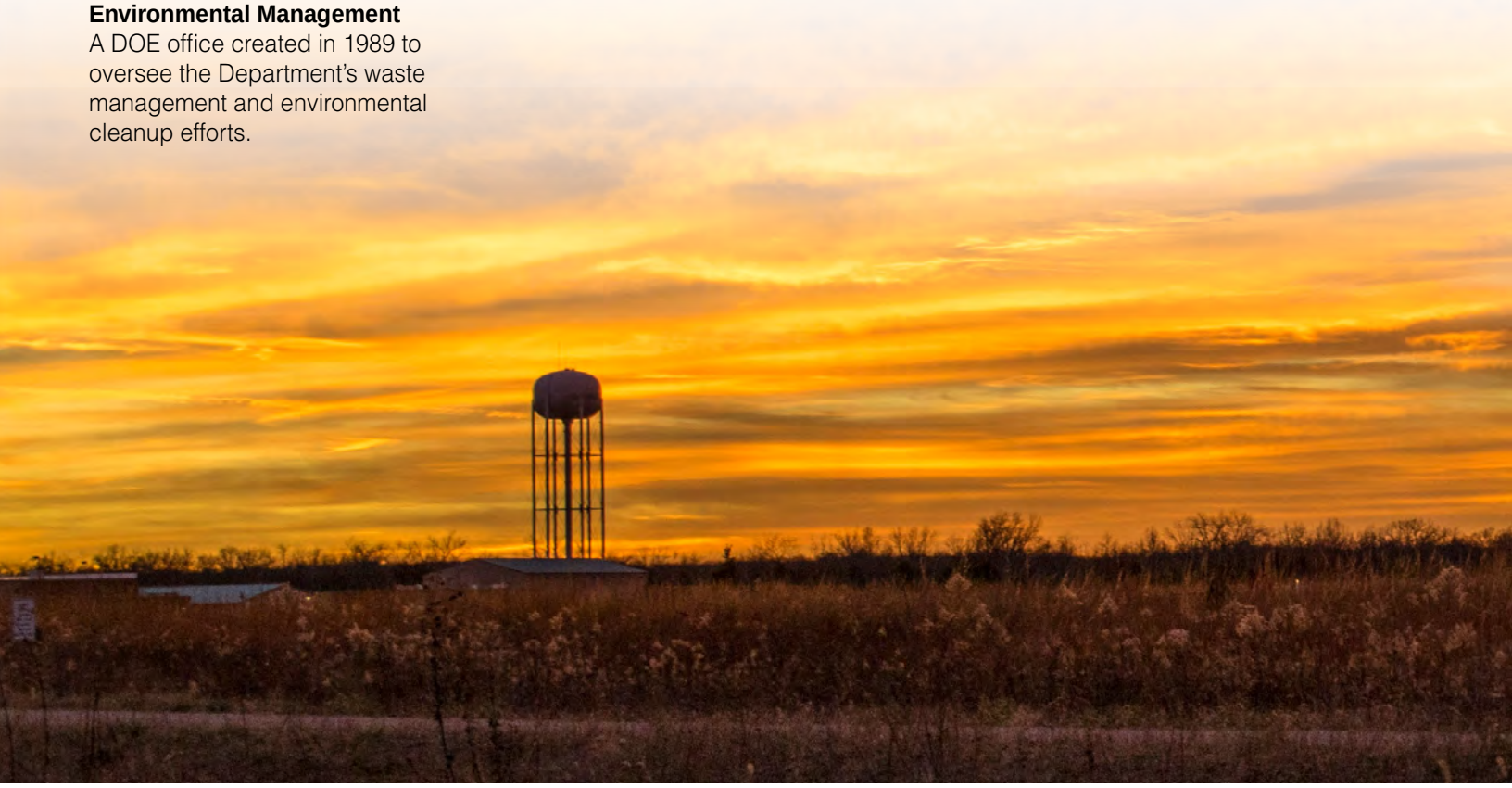
Environmental Management
A DOE office created in 1989 to oversee the Department’s waste management and environmental cleanup efforts.

Hazards
Site materials or conditions with potential to cause adverse effects to health, safety, or the environment. Residual hazards may include radionuclides and other constituents in entombed facilities and landfills, groundwater, and other media that are restricted from exposure to people and the environment by LTS&M within the long-term site boundary. Hazards may persist for generations.

Legacy Management (LM)
A DOE office created in 2003 to manage the long-term responsibilities of closed sites. Responsibilities include LTS&M, as well as physical site management. Conditions sometimes permit compatible reuse of a site. Long-term responsibilities also include managing site records and electronic information, overseeing pension and benefit programs for retired contractor personnel, and responding to stakeholder inquiries.

Long-Term Surveillance and Maintenance (LTS&M)
Site-specific physical or engineering controls, institutions, information, and other mechanisms that ensure protection of people and the environment at LM sites where cleanup (landfill closures, remedial actions, removal actions, facility stabilization) has occurred. The LTS&M scope includes land-use controls, monitoring, maintaining in-place remedies, monitoring systems and information management, and requesting adequate funding to implement the specific plans. “Long-term stewardship” is often used synonymously with LTS&M. The duration of activities is defined in site-specific Long-Term Surveillance and Maintenance Plans.

Long-Term Surveillance and Maintenance Plan
Includes actions, agreements, and legal documentation that define the plan for LTS&M; including contingency plans.



Radionuclide
An unstable isotope that undergoes spontaneous nuclear transformation, emitting radiation.

Radiation
Energy emitted by unstable (radioactive) atoms containing extra energy that is released as invisible particles or waves as the atoms change or decay into more stable forms. Particles and waves are referred to as radiation, and their emission is called radioactivity.

Residual Contamination
Contamination remaining on a site after cleanup is completed to the extent practicable. Typical residual contamination includes deep radioactive contamination below any usable water table, or a low-level groundwater contamination plume. Residual contamination is allowed to remain if the cost to remove it is high and disproportionate to the low risk it poses to human health and the environment.

Unrestricted Use
Land-use status upon which there are no restrictions on the types of activities that may occur, including permanent residential use.

Uranium Mill Tailings
Waste produced by extracting or concentrating uranium or thorium from ore. Legacy Management provides LTS&M for sites that are transferred to the federal government for custodial care.

A Monarch butterfly tagging event at the Weldon Spring, Missouri, Site was well attended by the community.

LTS&M activities at the Amchitka, Alaska, Site.

Anticipated LM Sites Through FY 2025

Site Category

Category 1 activities typically include records-related activities and stakeholder support

Category 2 activities typically include routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/maintenance, records-related activities, and stakeholder support

Category 3 activities typically include operation and maintenance of active remedial action systems, routine inspection (any site visit needed to verify the integrity of engineered or institutional barriers) and monitoring/maintenance, records-related activities, and stakeholder support

D/P = Disposal/Processing

DR = Decommissioned Reactor

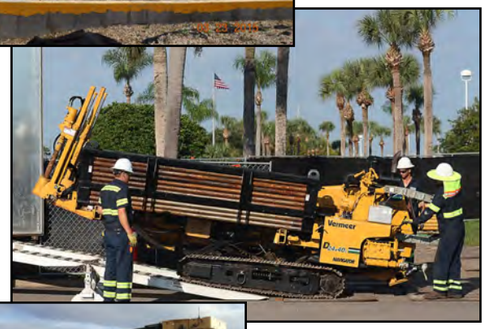
Planned transfer dates are subject to change.

01/20/2016

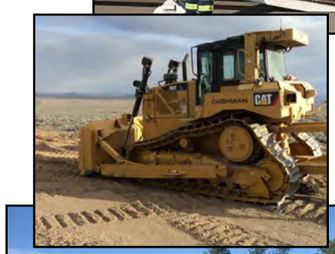
Anticipated LM Sites Through FY 2025

Acid/Pueblo Canyon, New Mexico, Site.

Weldon Spring, Missouri, Site.



Pinellas County, Florida, Site



Central Nevada Test Area Site.

Sherwood, Washington, Disposal Site.

SITE	STATE	FY
Acid/Pueblo Canyon Site	NM	1985
Adrian Site	MI	1996
Albany Site	OR	1993
Aliquippa Site	PA	1997
Ambrosia Lake Disposal Site	NM	1998
Ambrosia Lake West Disposal Site	NM	2020
Amchitka Site	AK	2008
Ashtabula Site	OH	2010
Attleboro Site	MA	2018
Bayo Canyon Site	NM	1984
Bear Creek Disposal Site	WY	2016
Berkeley Site	CA	1985
Beverly Site	MA	2004
Bluewater Disposal Site	NM	1997
BONUS Decommissioned Reactor Site	PR	2004
Buffalo Site	NY	2002
Burrell Disposal Site	PA	1994
Burris Park Site	CA	2015
Canonsburg Disposal Site	PA	1996
Center for Energy and Environmental Research Site	PR	2006
Central Nevada Test Area Site	NV	2008
Chariot Site	AK	2005
Chicago North Site	IL	1989
Chicago South Site	IL	1989
Chupadera Mesa Site	NM	1986
Church Rock Disposal Site	NM	2025
Colonie Site	NY	2017
Columbus East Site	OH	2001
Columbus Site	OH	2008
Conquista Disposal Site	TX	2019
Curtis Bay Site	MD	2022
Deepwater Site	NJ	2021
Durango Disposal/Processing Sites	CO	1996
Durita Disposal Site	CO	2020
Edgemont Disposal Site	SD	1996
El Verde Site	PR	2006
Energy Technology Engineering Center Site	CA	2020
Fairfield Site	OH	1996
Falls City Disposal Site	TX	1997
Fernald Site	OH	2008
Ford Disposal Site	WA	2022
Gas Hills East Disposal Site	WY	2019
Gas Hills North Disposal Site	WY	2018
Gas Hills West Disposal Site	WY	2025

SITE	STATE	FY
Gasbuggy Site	NM	2008
General Atomics Hot Cell Facility Site	CA	2005
Geothermal Test Facility Site	CA	2005
Gnome-Coach Site	NM	2008
Grand Junction Disposal/Processing Sites	CO	1999
Grand Junction Site	CO	2002
Granite City Site	IL	1994
Grants Disposal Site	NM	2024
Green River Disposal Site	UT	1998
Gunnison Disposal/Processing Sites	CO	1997
Hallam Decommissioned Reactor Site	NE	1998
Hamilton Site	OH	1997
Highland Disposal Site	WY	2020
Indian Orchard Site	MA	2004
Inhalation Toxicology Laboratory Site	NM	2012
Jersey City Site	NJ	1983
Laboratory for Energy-Related Health Research Site	CA	2006
Lakeview Disposal/Processing Sites	OR	1995
L-Bar Disposal Site	NM	2004
Lisbon Valley Disposal Site	UT	2019
Lowman Disposal Site	ID	1994
Madison Site	IL	2002
Maxey Flats Disposal Site	KY	2004
Maybell Disposal Site	CO	1999
Maybell West Disposal Site	CO	2010
Maywood Site	NJ	2024
Mexican Hat Disposal Site	UT	1997
Middlesex South Site	NJ	2020
Middletown Site	IA	2022
Missouri University Research Reactor Site	MO	2005
Moab Disposal/Processing Site	UT	2025
Monticello Disposal and Processing Sites	UT	2002
Monument Valley Processing Site	AZ	1997
Mound Site	OH	2012
Naturita Disposal/Processing Sites	CO	1999
New Brunswick Site	NJ	2001
New York Site	NY	1996
Niagara Falls Storage Site Vicinity Properties Site	NY	1992
Oak Ridge Warehouses Site	TN	1994
Oxford Site	OH	1997
Oxnard Site	CA	2008
Painesville Site	OH	2016
Panna Maria Disposal Site	TX	2018
Parkersburg Disposal Site	WV	1994

SITE	STATE	FY
Pinellas County Site	FL	2004
Piqua Decommissioned Reactor Site	OH	1998
Ray Point Disposal Site	TX	2018
Rifle Disposal/Processing Sites	CO	1998
Rio Blanco Site	CO	2008
Riverton Processing Site	WY	1991
Rocky Flats Site	CO	2008
Rulison Site	CO	2008
Salmon Site	MS	2008
Salt Lake City Disposal/Processing Sites	UT	1997
Sequoyah County Disposal Site	OK	2020
Seymour Site	CT	1995
Sherwood Disposal Site	WA	2001
Shiprock Disposal Site	NM	1996
Shirley Basin South Disposal Site	WY	2005
Shoal Site	NV	2008
Site A/Plot M Decommissioned Reactor Site	IL	1998
Slick Rock Disposal/Processing Sites	CO	1998
Split Rock Disposal Site	WY	2019
Spook Disposal Site	WY	1993
Springdale Site	PA	1996
St. Louis Site	MO	2021
Toledo Site	OH	2001
Tonawanda Site	NY	2017
Tonawanda North Site Unit 1	NY	2009
Tonawanda North Site Unit 2	NY	2009
Tonawanda North Site Unit 3	NY	2025
Tuba City Disposal Site	AZ	1996
Uravan Disposal Site	CO	2018
Vallecitos Nuclear Center Site	CA	2013
Wayne Site	NJ	2007
Weldon Spring Site	MO	2003
Windsor Site	CT	2018

Edgemont, South Dakota, Disposal Site.

Acronym List

AUMs	abandoned uranium mines
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIO	Chief information officer
D&D	Decontamination and Decommissioning
DOE, Department	U.S. Department of Energy
DRUMs	defense-related uranium mines
EEOICPA	Energy Employees Occupational Illness Compensation Program Act
EJ	environmental justice
EM	Office of Environmental Management
EMS	Joint Environmental Management System
EPA	U.S. Environmental Protection Agency
EQuIS	Environmental Quality Information System
ERISA	Employee Retirement Income Security Act
FEVS	Federal Employee Viewpoint Survey
FITARA	Federal Information Technology Acquisition Reform Act
FOIA	Freedom of Information Act
FUSRAP	Formerly Utilized Sites Remedial Action Program
FY	fiscal year
GEMS	Geospatial Environmental Mapping System
HCMP	*Human Capital Management Plan*
HPO	high performing organization
HPSB	High-Performance and Sustainable Buildings
IAEA	International Atomic Energy Agency
ICs	institutional controls
IT	information technology
LEED	Leadership in Energy and Environmental Design
LM	Office of Legacy Management
LMBC	Legacy Management Business Center
LTS&M	long-term surveillance and maintenance
NARA	National Archives and Records Administration
NPS	National Park Service
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
NWPA	Nuclear Waste Policy Act
OMB	Office of Management and Budget
OPM	U.S. Office of Personnel Management
PA	Privacy Act of 1974
PEIS	Programmatic Environmental Impact Statement
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
STGWG	State and Tribal Government Working Group
ULP	Uranium Leasing Program
UMTRCA	Uranium Mill Tailings Radiation Control Act
YMP	Yucca Mountain Project

LM federal and contractor staff met with a Congressional representative at the Grand Junction, Colorado, Office.

Grand Junction, Colorado, Office.

U.S. DEPARTMENT OF ENERGY | Legacy Management

2016–2025 STRATEGIC PLAN

http://energy.gov/lm

Managing Today's Change, Protecting Tomorrow's Future