



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

2020–2025 STRATEGIC PLAN

Fernald Preserve, Ohio.



www.energy.gov/lm

Managing Today's Change, Protecting Tomorrow's Future



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U.S. DEPARTMENT OF
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January 2020

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Managing Today's Change, Protecting Tomorrow's Future



Organizational Core Values

PEOPLE

We recognize people are our most important resource and respect and value our collective experience, skills, and diversity.

SAFETY

We protect the health of the public and our workers and promote safe work practices at all of our offices and sites.

BUSINESS EXCELLENCE

We are fiscally responsible and actively pursue continuous improvement through the implementation of leading business practices.

COMMUNICATION

We share information in a clear and concise manner throughout all levels of the organization and leverage all communication platforms.

LEADERSHIP AND TEAMWORK

We value leadership and teamwork and encourage active participation in program decision-making.

STAKEHOLDER FOCUS

We openly communicate with all of our stakeholders 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 implement ethical practices in executing our mission and ensure our integrity is not compromised.



Kids helped capture and tag monarchs to experience real citizen science at the Weldon Spring, Missouri, Site Monarch Madness event.



Melinda Downing, DOE Environmental Justice Program Manager, (second from right) with the 2018 National Environmental Justice Conference award recipients: Clarence Brown (left), coordinator for Mentoring for Environmental Scholars program at Pre-College University; Donna Christensen (second from left), former U.S. Representative from the U.S. Virgin Islands; Carolyn Sawyer (right), communications strategist with the Tom Sawyer Company.

Letter to the Reader



The U.S. Department of Energy (DOE or Department) remains committed to managing our responsibilities associated with the legacy of World War II and the Cold War. This legacy includes radioactive and chemical waste, environmental contamination, and hazardous materials at sites across the United States and the territory of Puerto Rico. The Department has taken significant steps toward fulfilling its commitments to clean up this environmental legacy by successfully implementing an environmental remediation program.

Since Congress established the DOE Office of Legacy Management (LM) more than 15 years ago, the LM long-term surveillance and maintenance (LTS&M) responsibilities have expanded considerably from 33 sites in 2003 to 100 sites today and counting. We anticipate this responsibility will continue to grow to more than 122 sites by 2025.

We remain committed to protecting human health and the environment within the communities that made sacrifices for the nation during one of the most critical periods in our country's history. We continue to conduct LTS&M at sites where nuclear waste has been disposed, where residual contamination remains, and where passive or active treatment of groundwater contaminated by radionuclides or other contaminants of concern is being conducted. Our LTS&M activities make certain that the remedies at our legacy sites continue to protect human health and the environment.

Our responsibilities extend beyond environmental protection activities at sites. We continue to ensure that the pensions and health care benefits of former workers are honored; that records of site operations and remediation, as well as site records created by LM are collected, preserved, and made available to stakeholders; and that our sites and facilities are sustainably managed, which includes identifying opportunities for beneficial reuse. Throughout all of our operations and activities, we remain committed to engaging with the public and governments at all levels, and consulting and collaborating with tribal nations.

This Strategic Plan represents the fifth iteration of our organization's strategic planning efforts. While the plan is similar in format to prior versions, our site management responsibilities have grown, and we have adapted accordingly to continually improve our performance. As LM inherits additional remediated sites from DOE's Office of Environmental Management (EM) and others, we will continue to learn and grow as an organization, and adopt more effective and efficient ways to carry out our responsibilities. This includes locating federal and contractor staff in locations closer to stakeholders and allocating resources to areas of highest program need.

While we have made significant contributions to protecting human health and the environment through our commitment to long-term stewardship, the best of our work is yet to come. As we learn more about these sites and engage with the experts in our industry and communities, we will provide the highest quality of stewardship at these legacy sites. We thank you for your sustained interest and support and look forward to the continued involvement of all our stakeholders and tribal nations as LM implements cost-effective solutions to address the challenges that lie ahead.

Sincerely,

A handwritten signature in black ink that reads "Carmelo". The signature is written in a cursive, slightly stylized font.

Carmelo Melendez

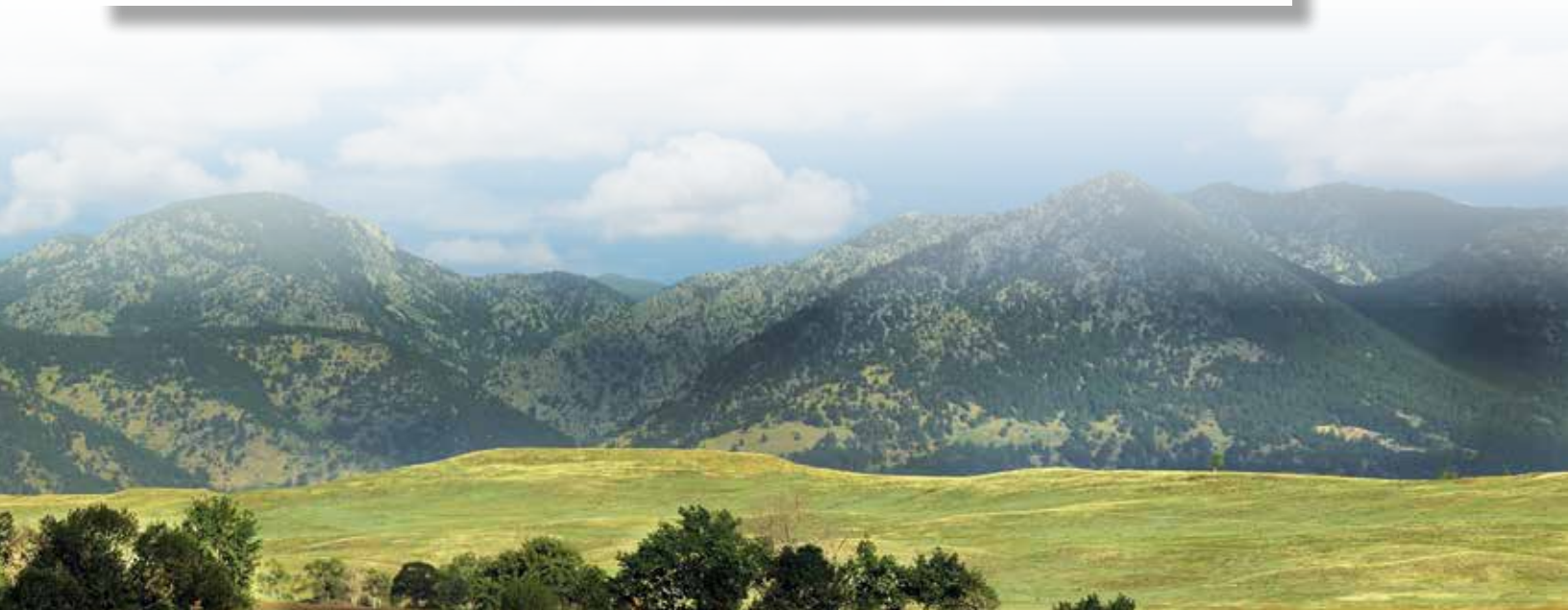
Director, Office of Legacy Management

Rocky Flats Site, Colorado.



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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

Our vision is to ensure:

- The communities near our legacy cleanup sites, the environment, and our legacy workforce are protected and well-served.
- People and the environment are protected by consistent and effective long-term surveillance and maintenance.
- Records and information are readily accessible to the public.
- Stakeholders, tribal nations, and state and local governments trust us because we are open, honest, and have a collaborative working relationship.
- Benefits are delivered to the Department's former contractor workforce in a timely manner.
- Decisions are made based on meaningful involvement of interested and affected personnel.

Weldon Spring, Missouri, Site.

Operating Principles

Seven principles guide the implementation of our strategic plan:

1. We operate safely with protection of human health and the environment our top priority.
2. We are serious about our responsibility, as a federal trustee, to safeguard land and resources.
3. We recognize that legacy activities are local and tailor site-specific solutions to short- and long-term issues facing our sites and the nearby communities.
4. Stakeholder involvement is integral to our operations and we understand our success requires engaging with our communities and tribal nations.
5. We operate in an open, honest, and transparent manner.
6. We are fiscally responsible in managing taxpayer money.
7. We ensure continuity of operations, including relocation of personnel and resources and the performance of critical functions in the event of emergencies.

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 waste and materials.
2. Improve cost effectiveness while reducing post-closure-related health risks.
3. Improve the long-term sustainability of environmental remedies.
4. Address the environmental legacy of defense-related uranium mining and milling sites.
5. Transition new sites to LM in a safe, timely, and cost-effective manner.



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

1. Protect and maintain legacy records and information.
2. Make technology solutions more efficient, relevant, and accessible to the LM stakeholder and user communities.
3. Preserve the 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 address severe weather events.
2. Optimize the use of federal lands and properties.
3. Transfer excess government real and personal property.



Goal 5. Sustain management excellence.

1. Ensure LM sites are safe and secure for federal and contractor personnel, regulators, and the general public.
2. Develop and maintain high standards for planning, budgeting, acquisition, and program and project management.
3. Sustain a talented, diverse, inclusive, and performance-driven workforce.
4. Improve the quality, efficiency, and effectiveness of site management and business support 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 partners; nonprofit organizations; international organizations; and other countries.
3. Consult, collaborate, and partner with 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's site management responsibilities are broad and diverse — we are currently protecting human health and the environment at 100 sites in 28 states and territories. We manage commitments to more than 12,000 retired contractor workers, more than 130,000 cubic feet of records, 210 terabytes of electronic material, and tens of thousands of acres of land. We also expect an additional 22 sites to be transferred to LM during the next five years. Accordingly, we 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.

We manage commitments to more than 12,000 retired contractor workers, more than 130,000 cubic feet of records, 210 terabytes of electronic material, and tens of thousands of acres of land.

People and Organizations

The LM organization anticipates a staff of 80 authorized federal employees and approximately 500 contractor personnel. Our federal and contractor staff are located 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; Westminster, Colorado; and Washington, DC. This organization of professionals is connected through state-of-the-art teleconferencing, videoconferencing, and internet capabilities.

The LM organization is composed of personnel with a multidisciplinary set of skills and abilities. Our geologists, hydrologists, engineers, and physical scientists ensure long-term protection of the environment. Our certified realty officers and property specialists manage and dispose of federal property. We also have information technology (IT) specialists and records professionals to capture, safeguard, and share information. Our historians and public participation specialists help us engage with stakeholders and governments. And lastly, our human resource and administrative staff provide cost-effective support to management and site personnel and associated workflow needs.

LM augments federal staff with 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.

In addition, LM also uses existing DOE management and operating contractors to manage pension plan assets and provide post-retirement benefits to retired contractor workers. This approach reduces cost, utilizes a knowledgeable existing workforce, and ensures timely and accurate payment of benefits.

Management of our sites requires close cooperation with local, state, and federal government agencies and tribal nations. We also have agreements with private landowners, commercial operators, public utilities, non-profit organizations, and DOE national laboratories. These relationships and arrangements provide LM with resources necessary to conduct our mission and meet our goals in a timely and cost-effective manner.

U.S. Department of Energy, Washington, DC.



Technology and Processes

LM is proactive in studying and applying new cost-effective technologies that improve worker and public safety and enhance protection of the environment. We continually evaluate emerging engineering and scientific advancements, and expect to further apply remote sensing, telemetry, and unmanned aviation-based sensors with instruments to assist with site monitoring efforts.

LM remotely monitors instrumentation and operates equipment systems that allow a single operator to simultaneously monitor the performance of environmental remedies at multiple sites. This technology has significantly expanded our monitoring capabilities, while allowing staff to focus on other mission-critical functions.

Environmental remedies installed by the Department are conservative in nature and often include multiple layers of protection. DOE has spent billions of dollars to perform cleanup and establish long-term sustainable remedies. LM protects those investments through active maintenance, as well as administrative institutional controls (ICs), as part of a “defense in depth” strategy for our sites.

Funding and Acquisition

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

In addition, some LM operations also generate revenue for the federal government. Money is provided to the U.S. Department of the Treasury through royalties from the Uranium Leasing Program (ULP).

Lastly, LM works closely and collaboratively with land management agencies, adjacent landowners, and other government agencies to cost-effectively manage land and related infrastructure. This includes allocating resources for construction and maintenance of roads, bridges, dams, landfills, disposal cells, parking lots, sidewalks, trails, signs, fences, weed and animal control, and other common aspects of asset management.



LM staff attend the 2018 Long-Term Stewardship Conference in Grand Junction, Colorado.

Protect Human Health and the Environment



GOAL 1

Situation Analysis

LM protects human health and the environment by conducting LTS&M activities at 100 sites (currently) to ensure that environmental remedies put in place during site cleanup continue to protect human health and the environment. Our site inventory will expand as other DOE sites are transferred to LM upon the completion of remediation and regulatory closure. Sites can be transferred to LM when treatment or management strategies for contaminated groundwater are in place. Consequently, groundwater treatment continues to be an important LM responsibility at some of our sites.

Additionally, LM leads the effort to ensure the protection of low-income, minority, and tribal populations potentially affected by DOE activities (Executive Order 12898). LM maintains compliance with regulations designed to prevent the exposure of the public to radioactive and hazardous materials at these sites. LM is also addressing hazards at uranium mines, many of them abandoned, that provided uranium ore to the U.S. Atomic Energy Commission (AEC), a predecessor agency to DOE, between 1947 and 1970.

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

- Resource Conservation and Recovery Act (RCRA).
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).
- Uranium Mill Tailings Radiation Control Act (UMTRCA).
- Formerly Utilized Sites Remedial Action Program (FUSRAP).
- Defense Decontamination and Decommissioning (D&D) Program.
- Nevada Off-Sites, continental underground nuclear tests or proposed test sites in the United States within proximity of the Nevada National Security Site (including tests conducted under the Plowshare and Vela Uniform Programs).
- Nuclear Waste Policy Act (NWPA, 1984) Section 151.
- Mercury Export Ban Act.

Core sampling of a test pit at the Mexican Hat, Utah, Disposal Site.



The sites for which LM is currently responsible are included on page 37. Maps of current and future LM sites are summarized on pages 38 and 39. Site-specific information is available via the internet at www.energy.gov/lm/sites/lm-sites.

Long-Term Surveillance and Maintenance

LM conducts LTS&M activities including the isolation of radioactive and hazardous materials (often in engineered disposal cells), management and remediation of contaminated groundwater, and maintaining ICs ranging from signs to legal instruments such as deed restrictions. Even at LM sites where no contamination was left and there are no future use restrictions, LM maintains site information and addresses stakeholder inquiries as part of maintaining institutional knowledge.

LTS&M of LM sites includes annual site inspections, environmental monitoring, implementation of environmental remediation strategies (particularly for groundwater), and ensuring ICs remain in place and are being enforced. ICs do not take the place of site remediation and are not intended as a substitute for such things as groundwater cleanup, but rather are protective measures needed while cleanup progresses. Some engineering controls will remain indefinitely, such as barriers to the mill tailings from processing uranium ore at UMTRCA sites and low-level radioactive waste that was left in place at sites closed under RCRA and CERCLA. ICs inform the public of the potential danger from residual contamination, and prevent uses of sites (e.g., drilling of water supply wells where groundwater contamination is present) that could cause inadvertent exposure to people.

After years of conducting LTS&M, our understanding of the challenges posed by protecting human health and the environment at LM sites has changed. Many sites were expected to require only records retention and limited inspections. However, at some UMTRCA sites, water discharged during mill operations resulted in contaminated groundwater that has proved to be more difficult to remediate than originally anticipated, requiring more extensive characterization, monitoring, and implementation of new treatment technologies.

Due to technical or economic limitations, many sites will never be released for unrestricted use. However, these sites must meet the regulatory standards and agreements defined by LTS&M responsibilities. For example, LM will be responsible for several small, privately owned FUSRAP sites and adjacent properties that will require close monitoring because of their residual contamination and proximity to commercial and residential areas. We recognize that, as environmental remediation efforts continue and sites are transitioned to LM for long-term care, our LTS&M responsibilities will become increasingly complex and varied and require continual improvements to protect human health and the environment.

Severe weather events pose additional challenges. To gain insight into how we might adapt LTS&M strategies, LM routinely participates in a DOE-wide working group to exchange knowledge and experience and attends training and conferences focused on climate resilience. Internally, we have conducted various initiatives to determine where LM sites are most vulnerable, ways to mitigate those vulnerabilities, and how to incorporate relevant severe-weather-event factors into program decisions. Other changes to remedies such as landfills and disposal cells are the result of soil formation and vegetation establishment and succession. For LM sites in arid and semi-arid regions, some of these processes have occurred faster than originally anticipated. LM is studying the potential impacts of these changes, and in some cases, several of these processes are improving the effectiveness of disposal cells for isolating waste.



A trailside observation deck at the Fernald Preserve in Ohio overlooks the former production area, which is now an excellent wildlife viewing and photography spot.



The tailings pile at the former Atlas Uranium Mill site in Moab, Utah, after the start of removal and relocation to the Crescent Junction site (2018). This project is being conducted by the DOE Office of Environmental Management.

Protect Human Health and the Environment



GOAL 1



Well field used for the apatite field study at the Old Rifle former uranium mill site near Rifle, Colorado.



A tour is conducted at the Moab UMTRA site.



The Abandoned Uranium Mines Working Group tour the Argo Tunnel Water Treatment Facility in Idaho Springs, Colorado.

Site Transition

As previously mentioned, we anticipate additional sites will be transferred to LM. Our work on these sites begins well before the formal transfer date. We may begin “site transition” activities three to five years ahead of when LM takes full responsibility, depending on the complexity of the site. Significant site transition activities include:

- Preparing LTS&M plans and receiving feedback from stakeholders and approval from site regulators;
- Obtaining records of the history of sites, including how remediation decisions were made;
- Asserting that all administrative ICs are in place, and developing relationships with site stakeholders, regulators, and tribal governments for some sites to understand their concerns;
- Ensuring stakeholders understand the role of LM in making certain that the site remains protective of human health and the environment; and
- Conducting due-diligence reviews of remediation conducted at the site, including inspecting features such as waste disposal cells or groundwater treatment systems to assure that they are functioning properly.

Uranium/Thorium Reimbursement

Title X of the Energy Policy Act of 1992 directed DOE to reimburse private licensees of one thorium and 13 uranium processing sites for a portion of their remedial action costs attributable to the sale of source material to the federal government, primarily during the Cold War era. In May 2011, LM and EM entered into a Memorandum of Agreement assigning LM the responsibility to conduct technical and financial audits and determine the amount eligible for reimbursement under Title X. Subsequent to consultation with EM, who oversees funding requests and issuing payments for the Title X Program, reimbursements are then provided to the Title X licensees.

Defense-Related Uranium Mines

LM leads a multi-agency effort to address the environmental legacy of defense-related uranium mines (DRUM) and uranium milling sites in the United States. In 2014, after consulting with other federal agencies, affected states and tribal nations, and the interested public on abandoned uranium mines (AUMs), LM submitted the *Defense-Related Uranium Mines Report to Congress*. A DOE national inventory database was developed for the DRUM report and findings confirmed there were about 4,225 purchase records in which uranium ore was provided to the AEC between 1947 and 1970 for atomic energy defense activities. Some reclamation and remediation of uranium mines has occurred by state, tribal, and federal partners under different regulatory frameworks. However, there is an opportunity to coordinate government goals and improve the allocation of resources to address this national problem.

To better address the environmental legacy of DRUM and milling sites, LM has partnered with the U.S. Environmental Protection Agency (EPA), the U.S. Bureau of Land Management, the U.S. Forest Service, and other agencies to improve the content and quality of mine data in the DOE national inventory. The DRUM Program partnership is verifying and validating the condition of an estimated 2,500 mines on federal public land by FY 2022. We will transition to inventorying mines on private and tribal lands following completed assessments of mines on federal public land. LM will begin closure, or reclamation, of physical hazards at these mines once inventories and condition

assessments are completed. We are providing a significant national service by addressing existing data gaps, helping to validate and verify site-specific mine data, and mitigating hazards. Our efforts help governments address high-priority mines using a coordinated and cost-effective approach.

Applied Studies and Technology

Given the long half-lives of 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 the effectiveness of site clean-up and reduces long-term costs. We remain informed of emerging engineering and scientific advancements that support ongoing LM studies and promote data sharing and scientific achievements by collaborating with other federal agencies, the environmental community, universities, national laboratories, and the international scientific community. The overriding goal is to incorporate advances in science and technology to improve LM capabilities. Individual countries and international organizations are recognizing the importance of long-term stewardship as they address their own environmental issues from Cold War activities. As a result, LM engages in multi-lateral (e.g., the International Atomic Energy Agency [IAEA]) and bi-lateral (e.g., Canada's Nuclear Safety Commission) international activities.

These engagements provide LM the opportunity to share lessons learned and expertise in legacy uranium sites and in LTS&M at all types of former radioactively contaminated sites, in stakeholder participation, records management, and beneficial reuse of sites.

Legacy Management National Lab Network

LM is expanding and maximizing access to environmental management technical expertise and assistance through collaboration with the Savannah River National Laboratory (SRNL) and other DOE laboratories in the development and deployment of environmental remediation and monitoring technologies. This includes, but is not limited to, evaluation and optimization of long-term performance of disposal cells, groundwater treatment systems, and LTS&M systems and strategies. This commitment was acknowledged with a Memorandum of Understanding signed on March 1, 2018, between DOE's SRNL, EM, and LM. We have developed a National Lab Network for collaborative efforts to support LM's mission needs.



(L-R) Dr. Terry A. Michalske, director of SRNL, DOE Under Secretary Paul Dabbar, and Michael Budney, manager of the Savannah River Operations Office signed a Memorandum of Understanding establishing SRNL as the lead national laboratory providing technical support to remediated cleanup sites around the United States.

Protect Human Health and the Environment



GOAL 1

Objectives

1. Comply with environmental laws and regulations related to radioactive and hazardous waste and materials.

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 policies to ensure their integrity and efficacy.
- Make the results of LTS&M site inspections and monitoring readily available to regulators and stakeholders.

2. Improve cost effectiveness while reducing post-closure-related health risks.

Strategies

- Use the relative ranking of human health and environmental risks of sites to prioritize actions.
- Improve efficiencies through development and implementation of cost-effective plans.
- 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.

Fernald Preserve, Ohio.



- Collaborate with organizations that conduct scientific research and development in support of LTS&M objectives.
- Explore and advance innovative technical approaches (e.g., expanding the use of unmanned aerial vehicles to enhance data gathering efforts) that improve the quality of LTS&M and inform remediation strategies.
- Develop changes to LTS&M plans that maintain compliance objectives and reduce costs.
- Assess the effects of severe weather events on environmental remedies and develop plans to mitigate significant impacts.
- Participate in IAEA efforts and other international initiatives to develop guidance and recommendations for the management of post-closure care of uranium mining and milling sites and other legacy nuclear sites around the world and implementation of leading practices developed in other countries.
- Host visits by regulators and legacy site managers from the U.S. and other countries to share lessons learned and operational experiences of LTS&M activities conducted by LM employees.

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

Strategies

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

5. Transition new sites to LM in a safe, timely, and cost-effective manner.

Strategies

- Improve the transition program through the early identification of site transition activities.
- Develop tailored LTS&M plans based on the risk and complexity of the site to be transitioned.
- Obtain site records, including how remediation decisions were determined.
- Ensure all administrative ICs are in place.
- Establish relationships with site stakeholders, regulators, and tribal governments to understand their concerns and to ensure they understand the role of LM in making certain that the site remains protective of human health and the environment.
- Conduct due-diligence reviews of site remediation.

Performance Measures

1. Periodic monitoring, and compliance reports 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. Five-year and other periodic independent program reviews (conducted by parties not performing the work) validate the scientific and engineering soundness of site remedies and identify opportunities for risk and cost reduction.
5. Complete the inventory of DRUM on federal public land.
6. Physical hazards of DRUM on federal public land are safeguarded.

Preserve, Protect, and Share Records and Information



GOAL 2

Situation Analysis

We continue to modernize our records and information management policies and practices to become a more efficient and increasingly digital workplace. This work meets the Department's initiative to develop a framework for modern records and information management practices. Our efforts support the Department's goal to promote openness and reduce long-term records and information costs by transitioning to a digital government.

Records and Information 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 transferred into LM authority, the associated records and information are identified, transferred, and preserved in accordance with established retention policies. LM's ability to fulfill records preservation and information management responsibilities is enhanced by our NARA-certified LM Business Center (LMBC) records storage facility — a state-of-the-art, climate-controlled storage area designed to maximize LM's preservation capabilities. The facility is equipped to house 132,000 cubic feet of records materials, lower the long-term cost of records storage, and improve efficiencies and responsiveness to stakeholders seeking information about America's Cold War era nuclear sites.

LM's level of requests for records has remained steady, averaging approximately 2,000 requests per year since 2012. The majority of requests support the U.S. Department of Labor efforts to process claims associated with the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). The volume of documents per request under the Freedom of Information Act, as well as the Privacy Act of 1974, requires a significant level of effort to meet statutory timeliness requirements. With the Department's emphasis for open and transparent government through the use of electronic record keeping, LM began a transition toward an information governance approach to managing all of LM's information assets the same way it manages federal records. Key to this transition is the acquisition and implementation of an Electronic Content Management system. Over the next two years, the system will be rolled out to 28 identified work groups within LM to provide all federal and contractor employees access to the system to better manage information and to place appropriate governance on our information assets.

Data governance will be a focus at LM to exercise authority and control (planning, monitoring, and enforcement) over the management of data assets. Leveraging data as a strategic asset is the mission of the Federal Data Strategy established by OMB (OMB, M-19-18). Accordingly, LM will develop and implement an enterprise data governance strategy consistent with the operational principles and best practices described in the OMB memorandum. Current governance processes developed for environmental and spatial data will be refined in consideration of the Foundations for Evidence-Based Policymaking Act of 2018 and the Geospatial Data Act of 2018 and inform the comprehensive LM data governance strategy.

Information Technology Management

Improved use of IT continues to be a key factor in enhancing the productivity of the LM workforce. Both information sharing (mission enablement) and information safeguarding (mission assurance) are expected to increase and require continued



An LM Support warehouse professional transports boxes via handcart at the LMBC records storage facility.

evaluation and prioritization. To accomplish this focus, LM has implemented a risk-based decision-making IT governance process, which will improve effectiveness and operational efficiency and align LM with the Federal Information Technology Acquisition Reform Act. The risk-based decision-making process ensures risks are identified, understood, and mitigated, as necessary.

Securing our systems continues to demand constant awareness by all LM staff. When new technologies emerge, (e.g., cloud computing), the system security enables the safe adoption of new technology to improve operational efficiency. These LM processes provide a forum for the best ideas from within the entire LM-user community to be considered, evaluated, and implemented. LM has embarked on feature enhancements for the Geospatial Environmental Mapping System (GEMS), a publicly available system (<https://gems.lm.doe.gov/>) to provide regulators and the public access to our LTS&M data. And lastly, LM is implementing Aquarius to enhance and improve the data loading, processing, reporting, and visualization of our historical and future real-time continuous data.

Preserve Yucca Mountain Project Records and Information

One of LM's ongoing responsibilities is the preservation of the science and information generated by the Yucca Mountain Project (YMP) in Nevada. In 2010, LM assumed responsibility for the preservation of approximately 14,400 cubic feet of physical records, as well as more than 200 information systems, containing over 96 terabytes of data that document the science and information when the project was active. LM remains responsive to stakeholders and researchers that have an ongoing need for YMP scientific information. LM must carefully balance technical risk and cost while ensuring that all of the critical information systems and information are functional and available to the Department once a final disposition decision is reached. LM remains ready to support the Department's implementation with dependable, cost-effective information management services.

Objectives

1. Protect and maintain legacy records and information.

Strategies

- Proactively obtain records for pre-license transfer (transition) sites throughout project life cycle.
- Actively populate and maintain metadata consistent with federal guidelines.



Records at the LMBC records storage facility are analyzed for possible early transfer to NARA.

- Implement leading practices in information governance, including new tools and techniques to improve the efficiency and effectiveness of LM's records and information management.
- 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 and effective on-demand IT solutions.
- Use the Federal Strategic Sourcing Initiative to leverage volume-pricing discounts for IT solutions.
- Enhance LM transparency by actively improving LM's presence on the data.gov website (www.data.gov).

2. Make technology solutions more efficient, relevant, and accessible to the LM stakeholder and user communities.

Strategies

- Enable additional, and more user-friendly, public search and retrieval capability through website improvements.
- Empower users to interact with, explore, and share their environmental and spatial data through intuitive and engaging tools.

Preserve, Protect, and Share Records and Information



GOAL 2

- Continue to evaluate systems hosted in the LM environment and reduce risks.
- Improve the understanding of data and information workflows within the LM Enterprise to proactively address user needs.
- 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 (<https://gems.lm.doe.gov/>), which provides the public with access to LM environmental and geospatial data associated with LTS&M.

3. Preserve the Yucca Mountain Project science and information.

Strategies

- Evaluate the condition of hardware and software and make the necessary modifications and upgrades in order 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 the science and information associated with the YMP.

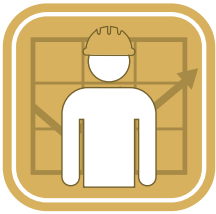
Performance Measures

1. Requests for information are answered with high-quality, timely responses that meet or exceed legally mandated time requirements.
2. LM's IT up-time meets or exceeds industry standards.
3. Control and reduce (where possible) baseline costs to manage hard copy records.
4. Control and reduce (where possible) baseline costs to manage electronic data and information.
5. LM's presence on data.gov meets or exceeds other federal organizations of similar size and mission.



LMBC in Morgantown, West Virginia.

Safeguard Former Contractor Workers' Retirement Benefits



GOAL 3

Situation Analysis

LM funds pensions and post-retirement medical and life insurance benefits for more than 12,000 former contractor workers and their spouses. The Department's oversight of retirement benefits of former contractor workers at closure sites is unique in the federal government — DOE continues to fund the benefit programs after contract closeout, while maintaining and improving the quality of services to post-closure retirement plan participants. DOE holds the risks of investment return volatility; changes in the bond market, which affects the interest rates used to value liabilities; medical costs inflation; and changes in legislation that affect funding pension plans long after the contract work is complete.

Closure site contractors have revised their investment approaches and 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 stock and bond markets, and a fiscally conservative approach for funding the minimum contribution required under the Employee Retirement Income Security Act has resulted in pension plan assets rising to 100% or more of liabilities. The outcome has significantly reduced LM's out-year budget requirements for pensions and post-retirement benefits.

However, efforts to anticipate changes in market conditions continue to affect budget formulation. Accordingly, five closure-site contractors have requested and received Departmental approval to transfer the liabilities and assets of pension plans to insurance companies. The result has been to safeguard former workers' pension benefits by eliminating the funding risk associated with an uncertain federal budget.

During FY 2020-FY 2025, a significant amount of LM's budget will be 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 the cost of

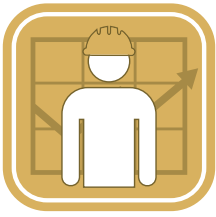


Mound, Ohio, during the operational era, circa 1974.

health care has been increasing faster than inflation. In addition, a growing federal deficit has contributed to increased pressure to reduce or maintain the current level of federal spending. Also, the full impact of the Affordable Care Act on retiree medical benefits remains uncertain. Three contractors have mitigated this funding risk by proposing and receiving Departmental approval to implement health reimbursement arrangements for retirees. This provides retirees with a fixed amount to be used to purchase Medicare supplemental insurance on the open market. Several other DOE contractors with open plans have looked to LM's approach as a model.

LM expects the following contractor actions to continue: lump-sum buyouts and insurance company annuities, and implementation of health reimbursement arrangements for retirees eligible for Medicare. We have created a process for handling these contractor actions. LM will continue to safeguard retirement benefits and control costs by working closely with an intra-agency working group, contractor staff, and independent actuarial firms to understand the latest practices.

Safeguard Former Contractor Workers' Retirement Benefits



GOAL 3

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 health care costs.

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

Strategies

- Continue to review and support, as appropriate, contractor efforts to mitigate rising retiree health care costs through health reimbursement arrangements.
- Evaluate the potential impacts of health care legislation and out-year funding restrictions on the ability to maintain contractor health care plans at current levels.

Performance Measures

1. Retired contractor medical and life insurance payments are delivered on time.
2. The systems used to predict post-retirement benefit funding requirements are accurate and reliable.
3. Business case analyses of contractors' proposals to change retiree medical benefits are developed and submitted to the Secretary of Energy for approval in a timely manner.



Weldon Spring, Missouri, during the operational era, circa 1957.

Sustainably Manage and Optimize the Use of Land and Assets



GOAL 4

Situation Analysis

LM is responsible for managing a broad and diverse portfolio of land and assets. Several LM sites have unique and irreplaceable natural, historic, and cultural heritage resources that increase the complexity of our mission. Due to LM's unique long-term mission that extends generations, we must recognize, understand, and implement sustainable management practices for the successful maintenance of environmental remedies in place and for the future management of lands in a manner that protects human health and the environment. We also support the beneficial reuse of land and assets, so that former sites can become community assets.

Sustainable, Long-Term Management

LM implements sustainable management practices at sites and facilities in accordance with federal, state, and tribal government regulations. LM achieves and demonstrates environmental excellence by assessing and controlling the impact of our activities and facilities on public health, employee safety, and the environment under our

Environmental Management Systems program. LM strives to be mindful of the long-term nature of our mission and plans for efficiency, optimized performance, and reduced costs and waste associated with energy use, renewable energy, water conservation, and our fleet and aviation management programs. We are cognizant of potential impacts our program may have on natural resources, but also how potential severe weather events may impact the effectiveness of the remedies at LM sites for protecting human health and the environment. LM strongly considers the environment when managing our occupied facilities across the country. Whether we lease or own assets, we plan to promote High Performance and Sustainable Building (HPSB) guiding principles and strive to meet Leadership in Energy and Environmental Design (LEED) standards for construction.

Beneficial Reuse

LM supports proactively managing real property assets over the long-term to use lands and facilities for federal, public, and private purposes while remaining consistent with the tenets of sustainability and good land-management practices. Beneficial reuse for LM refers to a productive use of

Slick Rock, Colorado, Disposal Site.



Sustainably Manage and Optimize the Use of Land and Assets



GOAL 4



Windsor, Connecticut, Site.



Wildlife can be found in abundance at many of LM's beneficial reuse sites.



Durango, Colorado, Disposal Site.

land or assets that no longer have a DOE mission after being remediated to a specified land use. LM promotes beneficial reuse activities that are consistent with final cleanup objectives and compatible with long-term maintenance and ensures protection of human health and the environment. Our reuse activities are environmentally sound and retain good stewardship of natural resources.

LM's overall goal for beneficial reuse is to revitalize 100% of available DOE-owned sites and implement multi-faceted reuse at as many sites as feasible. LM implements DOE's integrated land-use planning processes, taking into account environmental, economic, ecological, social, and cultural factors affecting each site or parcel of land. LM supports seven categories of reuse: disposal, energy-related, conservation, commercial/industrial, community, agriculture, and cultural resources.

To pursue national and regional initiatives, LM collaborates with internal and external working groups when developing beneficial reuse opportunities. These activities include supporting adjacent land uses or local community master plans on properties that are owned or managed by multiple entities. For example, conservation reuse is a viable option for many of the LM sites and it provides for various environmental, economic, and social benefits. Ecologically revitalizing a site encourages recreational activities and economic development such as tourism, agriculture, and urban development.

Uranium Leasing Program

In addition to work on abandoned uranium mines, LM manages 31 lease tracts (29 of them active) within the Uravan Mineral Belt in southwestern Colorado where private companies can mine uranium and vanadium ores. The ULP tracts (approximately 25,000 acres in total area) are leased on a competitive bid basis to mining companies who operate under the terms of agreements that include the payment of annual and production royalties to the U.S. Treasury. A programmatic environmental impact statement for the ULP was completed in 2014. In accordance with the Record of Decision, LM plans to manage exploration, mine development and operations, and reclamation of uranium mines for an additional 10-year period.

ULP management is an opportunity for LM to demonstrate responsible life-cycle uranium mining. The leases require actions to mitigate potential environmental impacts at all stages of the mining cycle, including reclamation of the mines 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 supply of uranium is vital to U.S. national and energy security, since the U.S. is the world's largest consumer of uranium. The ULP helps to lessen concerns about reliance on foreign uranium reserves. This domestic industry provides the key ingredient to power nearly 100 commercial nuclear reactors in the United States. Commercial nuclear energy contributes roughly 20% of the electricity for the U.S. electric grid, which is essential to the critical industrial infrastructure upon which the nation's economy, security, and health rely.

Objectives

1. Enhance sustainable environmental performance for facilities and personal property and address severe weather events.

Strategies

- Meet or exceed goals for federal agencies that include further reduction in greenhouse gas emissions, water-use intensity, and the percentage of energy obtained from renewable sources, among others.
- Understand regional predictions of severe weather events 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 guiding principles and LEED standards.
- Ensure that acquisition and maintenance of IT and other personal property are implemented in accordance with all applicable environmental advocacy programs, to include the ENERGY STAR and WaterSense programs.

2. Optimize the use of federal lands and properties.

Strategies

- Promote conservation efforts, recreational opportunities, redevelopment for commercial/industrial purposes, development of renewable energy projects, and other beneficial uses on LM sites that remain in federal ownership.
- Collaborate with federal or state agencies, tribal nations, and organizations to enhance land use and contribute to national, regional, and local initiatives.
- Identify, protect, and preserve important natural, cultural, and historic features on LM sites.
- Evaluate the need and eligibility for protection of historic features at LM sites under the National Historic Preservation Act, and similar state and local designations.
- Manage exploration and mining on ULP tracts as an example of responsible life-cycle mining of uranium and vanadium ores.

Fernald Preserve, Ohio.



Sustainably Manage and Optimize the Use of Land and Assets



GOAL 4

3. Transfer excess government real and personal property.

Strategies

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

Performance Measures

1. Meet or exceed 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 and LEED standards.
3. Evaluate and track potential opportunities for beneficial reuse to increase the number of DOE-owned sites that incorporate beneficial reuse.
4. Ensure excess real and personal federal property is transferred to other agencies, organizations, and individuals for their use.
5. Manage the ULP so that there are no environmental compliance violations on the lease tracts.

Atomic Legacy Cabin at the Grand Junction, Colorado, Site.



Sustain Management Excellence



GOAL 5

Situation Analysis

LM has been designated as a high performing organization (HPO) since 2007. We have continued to meet and exceed the requirements to sustain that designation and operate within the set of parameters that were negotiated by LM, DOE's Office of Management, and OMB. The parameters include federal staffing levels, budget allocations, acquisition strategies, program outcomes, and performance measures.

Planning, Budget, and Acquisition

Since the inception of LM, the Department and Congress have acted in concert to provide the organization with sufficient budget resources to carry out the mission. Congressional appropriations are distributed using a variety of procurement mechanisms, with the largest one being a small business, nation-wide strategic partner to help execute LM's mission. To facilitate governmental, regulatory, and tribal interactions, LM uses a variety of grants, cooperative agreements, and interagency agreements.

Program and Project Management

LM places a high priority on the use of program and project management principles and tools to manage activities. An emphasis on sound project management is consistent with the Department's policies and directives for project management. 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.

Human Resources

LM's mission scope and functions will continue to grow as sites are cleaned up, closed, and transferred. As LM receives additional sites, there will be an increased need for realty services to acquire ICs at a number of those sites. LM's role in an interagency effort to address the impact of DRUM may require additional staff resources. There will be a continued need for more staff with multidisciplinary skills.

We will need to work hard to maintain our goal of management excellence as federal staff retire and our workload increases and evolves. LM will continue its 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, "We recognize people are our most important resource and respect and value our collective experience, skills, and diversity." The LM organization's demographics demonstrate that we are one of the most diverse organizations within DOE.

We have addressed a serious problem facing the federal government, dealing with an aging workforce. Over the past few years, as employees retired or left the organization for other reasons, we have found that our current workforce is well-positioned to address current and future organization needs. In 2016, the average age of LM's federal staff was 49, with over one-third of the staff and a majority of the managers fully eligible for retirement. Today, only 16% of the



Colorado Mesa University intern working in the Grand Junction site's Environmental Sciences Laboratory microscope room.

Sustain Management Excellence



GOAL 5

staff are fully eligible to retire and of that 16% only 4% are in management positions. We are keenly aware of the importance of knowledge management to LM's continued success. Through careful planning, we have documented the need for knowledge transfer through succession planning and will continue to take additional steps to address the potential impacts 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 LM will take action based on those results. For the past several years, LM has had a participation rate higher than 90%. The LM management team takes the results of these yearly surveys seriously. Each year, action plans are developed to address areas within the survey that fall below the DOE average, and to address employee concerns.

Risk Management

LM has implemented risk management practices to provide for an intentional and data-driven risk management strategy for prioritizing funding and other resource allocations for management of sites and support activities. A primary tool for this is a site risk-ranking methodology, which assesses all the LM sites (including those transitioning soon) on a set of common factors, including:

- **Human Health Risk:** Likelihood that human receptors can be exposed to unacceptable levels of site-related contamination.
- **Stakeholder Risk:** Likelihood that the status of a given site can be affected or questioned in some way based upon input from stakeholders (individuals or organizations). Scrutiny could lead to a need for conducting additional studies or characterization at the site. This could also lead to reevaluating an existing remedy or selecting a different remedy.
- **Regulatory Risk:** Likelihood that a site will not attain compliance goals (as in the case of sites where groundwater cleanup is ongoing) or that compliance will not be maintained into the future (if the remedy is no longer operating properly or site conditions change).
- **Institutional Control Risk:** Likelihood that ICs could be violated in the future.

Fernald Preserve, Ohio.





LM, USACE, and LM Support attendees at the third annual Joint FUSRAP Meeting, October 24-25, 2018.

In addition to prioritizing funds for site management, the results of the risk ranking help LM make science and technology investments through programs such as Applied Studies and Technology and the National Laboratory Network for LM.

LM also performs a programmatic risk assessment annually in accordance with OMB Circular A-123, *Management's Responsibility for Enterprise Risk Management and Internal Control*. This annual programmatic risk assessment provides LM management an understanding of where the areas of highest programmatic risk reside within the organization, and a basis for prioritization of resources to help mitigate systemic areas of high risk.

Environmental Compliance, Safety and Health, and Quality Assurance

Integration of LM management systems associated with environmental compliance and sustainability, safety and health, and quality assurance into our day-to-day practices enhances the effectiveness and efficiency of LM operations. While this Strategic Plan addresses its Environmental Management System in Goals 1 and 4, safety and health and quality assurance are also key elements in management excellence.

Safety and Health: We consider no aspect of our mission more important than ensuring safe and healthy work conditions for all LM employees; contractors; subcontractors; and visitors, including regulators, at legacy sites, offices, and other work areas. This is achieved by fostering a culture focused on awareness, open communication, safety education and supervision, and safe working methods. Because LM sites are in a variety of environments and settings, we implement tailored safety and health programs and systems. Safety and

health are also responsibilities of every person. If an LM employee, contractor, or visitor observes a situation or feels that something they are asked to do is unsafe, they have a right to ask for work to stop until the problem is addressed or until everyone is satisfied that the activity will be completed safely.

LM provides safety program management, technical oversight, and expertise in the fields of industrial safety and hygiene, occupational safety, construction safety, radiation protection, fire safety, accident/incident investigation and reporting, and safety and health training. In addition, we are implementing a comprehensive Emergency Management Program (EMP), including site-specific requirements for all our offices outside of Washington, DC; our sites that have federal and/or contractor workers assigned to them; as well as our "unoccupied sites." Because our sites have little or no infrastructure, LM works closely with local first responders for EMP implementation. LM is using more effective systems to notify, account for, and communicate with our federal and contract partner staff in the event of an emergency or catastrophic event. We are also implementing measures to ensure the continuation of necessary business functions and to effectively communicate with stakeholders in the event of a catastrophic event.

As part of our safety and health program, LM implements the Federal Employees Occupational Safety and Health Program, Title 10 *Code of Federal Regulations* 851, "Worker Safety and Health Program," and we have an Integrated Safety Management program to ensure compliance with federal and state laws, DOE Orders, codes, standards, guides, federal and state regulations, and industry best practices.

Sustain Management Excellence



GOAL 5

Quality Assurance: LM has implemented Quality and Performance Assurance (Q&PA) processes and programs to assure work is performed in a compliant manner and consistently meets or exceeds mission objectives while minimizing potential hazards to the environment, the public, and workers. LM's program incorporates the requirements of DOE Order 414.1D, *Quality Assurance*, using ISO Standard 9001:2015 as the chosen national standard. Our Q&PA management systems ensure requirements are identified and integrated into LM procedures and work activities are adequately described in documents such as workplans and procedures.

Objectives

1. Ensure LM sites are safe and secure for federal and contractor personnel, regulators, and the general public.

Strategies

- Increase awareness of potential hazards by conducting safety and health training for LM federal and contractor personnel, completing the Readiness Review Process prior to conducting new projects at an LM site, and conducting emergency management exercises and drills to ensure site personnel are prepared in the event of an emergency.
- Identify, analyze, and mitigate hazards at LM sites by conducting oversight assessments, correcting any findings, and completing lessons learned.
- Monitor and review LM work activities to identify and implement opportunities to improve safety and health via the incident management process.

2. Develop and maintain high standards for planning, budgeting, acquisition, and program and project management.

Strategies

- Develop, maintain, and review procedures for major financial management functions and implement leading program, project, and business management practices.



LM personnel at the 45th Annual Waste Management Conference in Phoenix, Arizona.



Melinda Downing, Environmental Justice Program Manager, supports 18 interns from DOE's Mentors for Environmental Scholars Program and instructor Clarence Brown (Pre-College University) during the program's Boot Camp orientation.

- Fully examine the most cost-effective methods, such as small business contracts, cooperative agreements, or General Services Administration or design-build contracts for major efforts.
- Implement program, project, and contract management training.
- Use a transparent corporate approach to manage our financial resources.

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

Strategies

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

4. Improve the quality, efficiency, and effectiveness of site management and business support actions.

Strategies

- Prioritize financial investments to address highest risk site management activities.

- Enhance the quality of LM products and services by revising policies, procedures, and processes, as necessary.
- Foster a culture of continuous performance improvement.
- Implement effective and efficient service delivery.
- Increase customer satisfaction by empowering personnel with high-quality information and services.

Performance Measures

1. Complete the milestones identified in the LM Human Capital Management Plan (HCMP).
2. OPM FEVS results show that LM is one of the best organizations to work for in DOE and the federal government.
3. LM-identified personnel have received applicable and relevant safety and project management training.
4. Site management funding, resource allocation, and science and technology investments are prioritized based on the implementation of well-defined risk management practices.
5. Oversight results confirm LM programs are achieving their intended results in a safe, compliant, and efficient manner.

Engage the Public, Governments, and Interested Parties



GOAL 6

Situation Analysis

LM's success depends on connecting and effectively communicating with the public, other government organizations, and tribal nations. Accordingly, public outreach, intergovernmental collaboration, and effective dialog with tribal nations are central to all our work and remains a high priority. LM management and staff recognize that engaging the public and governmental organizations is critical to achieving nearly all objectives of the organization. Engaging the public, governments, and interested parties includes strategic outreach, interpretive services, and participation in environmental justice (EJ) efforts. Outreach often takes the form of person-to-person interaction between LM and community members at open houses, site tours, and interpretive centers.

LM understands that two-way communication with stakeholders is crucial and valuable. One advantage of two-way communication is the benefit to LM from involved stakeholders, including employees of other agencies, especially at remote sites. LM relies on local residents who live near some of our most remote sites to help maintain site integrity. 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 have conducted stakeholder surveys in 2005, 2012, 2015, and 2019 to obtain performance feedback and will continue to conduct these surveys.

LM will also improve stakeholder engagement by enhancing vertical integration of outreach activities within the organization. Policy and broad 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.

LM has also assigned public participation specialists to each of the site operations team locations. The specialists are embedded into the environmental teams, attending their assigned team's meetings as well as the meetings of the LM Office of Site Operations. This integration provides more efficient, proactive, effective, and responsive communication of planned and unplanned events to stakeholders. This organizational alignment also allows the communications team to develop and implement more effective plans that are closely aligned with field operations.



DOE and U.S. Army Corps of Engineers (USACE) break ground on a new interpretive center at the Weldon Spring, Missouri, Site.

Engaging the Public

LM public engagement efforts currently include the following:

- Quarterly LM *Program Update* newsletter – More than 300 hardcopies mailed, and more than 16,000 email notifications sent to stakeholders.
- Website – Receives thousands of page views monthly.
- Interpretive centers at the Weldon Spring site in Missouri, the Fernald Preserve site in Ohio, and the Grand Junction office in Colorado.
- Partnerships, such as the Mound Cold War Discovery Center that communicate DOE's rich history.
- Site visits for regulators; federal, state, and local, governmental officials; tribal-nation representatives; the press; and members of the public.
- Formal and informal consultation with tribal nations.
- Publications in peer-reviewed journals.
- News releases.
- Hosting public meetings.
- Participating in professional meetings.

Stakeholders continue to expect timely access to information that is delivered in a user-friendly fashion. As a result, LM completed a major effort to enhance access to data through our internet-based GEMS. Interactive, web-based tools provide customized reporting on multiple data types to internal and external stakeholders.

Interpretive centers are also an effective means of connecting with the public. In addition to operating existing centers at the Weldon Spring site, the Fernald Preserve, and the Grand Junction office, LM is evaluating partnerships with other government agencies, museums, and educational institutions to expand access to current and legacy information, including collaboration with Dayton History who operate the Mound Cold War Discovery Center. Lastly, LM is evaluating ways to better preserve the history of the Manhattan Project and Cold War. Preservation of our sites' history is a key element in protecting future generations from long-lived residual contamination.

Working with Local, State, and Federal Governments

LM has been, and will continue to 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



Long-Term Stewardship Conference held in Grand Junction, Colorado, August 20-24, 2018.

of State Legislatures. LM works closely with state and federal regulators to share information, collaborate on environmental solutions and public meetings, and to understand and address potential impacts (e.g., land use and/or land restrictions) to surrounding areas.

In many cases, LM also works closely with local governments on reuse opportunities, economic opportunities, and ensuring 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.

Engage the Public, Governments, and Interested Parties



GOAL 6

Working with Tribal Nations

LM is committed to meaningful, two-way communication with tribal nations. We work closely with an array of Native American and Alaska-Native stakeholders who are partners in our commitment to long-term monitoring and surveillance. We routinely collaborate on site inspections and environmental monitoring, document review, natural resources management, and community outreach. We will continue to seek increased opportunities for tribal nations in our operations.

LM currently conducts long-term stewardship and maintenance on sites located on or near multiple tribal and Alaska-Native communities. Cooperative agreements and grants for affected tribes provide financial support for technical oversight of LM's activities on their lands.

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 activities of federal agencies 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), Centers for Disease Control and Prevention, Bureau of Indian Affairs, Indian Health Service, and the U.S. Nuclear Regulatory Commission. The original plan was created in 2007 and updated in 2014, building on information gained and lessons learned.

We also work closely with the State and Tribal Government Working Group (STGWG), part of the National Conference of State Legislatures. STGWG is composed of states and Native American tribes and engages directly with DOE on issues related to the cleanup of the nuclear weapons complex. STGWG representatives provide recommendations to ensure that operation and cleanup activities follow all federal and state laws and regulations and tribal rights, including those retained by treaty, conferred by statute, and protected by the federal trust responsibility. STGWG's *Closure for the Seventh Generation*, 2017 Edition report provides updated information on long-term stewardship activities across DOE sites.

Diné College field trip.





Ribbon cutting opening of the new Mound Cold War Discovery Center. (L–R) Susan Smiley, LM Mound site manager; U.S. Congressman Mike Turner; Brady Kress, president and CEO of Dayton History; Paul Lamberger, vice president of Mound Science and Energy Museum Association; Dick Church, mayor of Miamisburg, Ohio; Douglas Little, DOE deputy assistant secretary for Intergovernmental and External Affairs; Gwen Hooten, LM team leader; Mike Leesman, chair of the Board of Trustees for Dayton History; Eric Cluxton, president of Mound Development Corporation.

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 our efforts to review, plan, and implement EJ commitments, we will ensure integration of EJ into our policies, programs, and activities. We have made significant progress in engaging minority and low-income communities, Native Americans, and Alaska-Native communities, in the decision-making process. This is reflected through ongoing long-term stewardship and maintenance 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.

In addition to ensuring community involvement in decision-making, we have also continued to pursue educational partnerships for the public by 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 office in Colorado. 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.

International Activities

In addition to engaging and working with local and state governments, other federal agencies, and tribal nations, LM will continue to contribute and share lessons learned with professionals in other nations and with international organizations that are addressing environmental remediation and long-term stewardship.

In FY 2019, LM signed a “Practical Arrangement” to more formalize its work with the IAEA, an independent, intergovernmental organization within the United Nations that serves as a global focal point for nuclear cooperation. Because of LM’s experience with abandoned uranium mines and mills, the Office will provide technical support to IAEA efforts to address areas of uranium mining and milling in the former Central Asian Republics of the Soviet Union. The IAEA International Working Forum on the Regulatory Supervision of Legacy Sites (RSLs), was initiated in 2010 to improve short- and long-term management of contaminated legacy sites in Member States around the world. LM is contributing to the workplan for the next phase of RSLs, which will include greater focus on post-closure management of remediated sites, and engaging people who live near sites. LM will help in developing “safety guides” for management of legacy sites and will host visitors from other Member States to help them learn first-hand how LM addresses post-closure requirements at its sites.

LM is also developing a mutual assistance agreement with Wismut GmbH, the federally owned company in Germany responsible for the world’s largest mine closure program in the

Engage the Public, Governments, and Interested Parties



GOAL 6

former East Germany where uranium was mined for use by Russia during the Cold War. Initiated in 1991, the Wismut program is nearing the point of having many of its sites enter long-term stewardship and wishes to benefit from LM's experience. In turn, Wismut GmbH has already put into beneficial reuse many of its sites, an accomplishment that can assist LM in its reuse efforts. LM will continue other exchanges with the Nuclear Decommissioning Authority of the United Kingdom and with the Canadian Nuclear Safety Commission.

Objectives

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

Strategies

- Adapt communication methods that are most effective or preferred by the public and communicate broadly through the selected methods and tools.
- Expand and enhance the operation of visitor centers at LM sites, including communicating the importance of current LM activities and 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 Manhattan Project and Cold War.
- Analyze feedback from stakeholders to modify approaches and improve outreach.
- Provide training to improve the public engagement skills of LM employees.
- Conduct Community Leaders Institutes around the country.
- Teach Radiation, Energy, and Technology Workshops for communities, teachers, and students.

2. Work effectively with local, state, and federal partners; non-profit organizations; international organizations; and other countries.

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 DRUM) and identify new beneficial site-reuse opportunities.
- Use intergovernmental relationships as a means of sharing lessons learned and leading practices.
- Leverage long-term stewardship leading practices through agreements that LM has established with international organizations and with other countries.



Lloyd Caldwell, director of Military Programs for the USACE, and Carmelo Melendez, director of the Office of Legacy Management, sign a Memorandum of Agreement at USACE headquarters in Washington, DC.

3. Consult, collaborate, and partner with tribal nations.

Strategies

- Participate in national forums that involve tribal governments such as STGWG and the Tribal Leaders Summit hosted by the Secretary of Energy.
- Participate in educational and outreach activities organized by our tribal partners.
- Partner with tribal nations throughout the National Environmental Policy Act process.
- Fulfill commitments for engagement through implementation of programmatic agreements for the ULP and other programs.
- Provide opportunities for Native American students and scholars to have internships with LM.
- Ensure native-language speaker availability to enhance the experience of outreach events with different tribal nations.
- Engage tribal nations regarding ways to improve the effectiveness of long-term stewardship and maintenance, including better understanding their concerns, keeping them informed, asking for and listening to their input, and involving them in decision-making.

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

Strategies

- Collaborate with National Park Service (NPS) on planning activities and to provide historical information concerning the Manhattan Project National Historical Park.
- Lead the coordination among multiple DOE offices and programs to perform management, operations, maintenance, and preservation activities for the historic Manhattan Project sites.
- Work with DOE Office of History and Heritage Resources and the 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.



Mound, Ohio, Site.



Fernald Preserve exhibit at the National Science Bowl®.

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 perform outreach to EJ communities and leaders near LM sites.
- Partner with EJ communities to address environmental concerns.
- Leverage Department and other federal agency EJ work.
- Provide mentors for the Environmental Scholars Program.
- Enable community capacity building through technology.

Engage the Public, Governments, and Interested Parties



GOAL 6

Performance Measures

1. Overall stakeholder survey results identify higher levels of satisfaction regarding LM communication.
2. Attendance at existing visitor centers continues to increase and new visitor centers show an upward trend in visits.
3. LM website content, articles in the LM quarterly newsletters, and information provided through other media reflect the subjects that are of the most interest to stakeholders.
4. Partnerships with other governments result in more effective solutions at reduced costs.
5. 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.



Bill Frazier (LM) and Mary Picel (Argonne National Laboratory) discuss the Riverton, Wyoming, site with students at a Northern Arapaho event.



LM Support staff engage STEM students by discussing LM's area activities.



Event exhibitors, educational activities, and native plant vendors inspired visitors to help support pollinators at home during the Weldon Spring Monarch Madness event.

Program Evaluation and Performance Measurement



Program Evaluation and Performance Measurement

LM's performance is evaluated by a diverse group of organizations in a variety of ways. The internal and external evaluation processes serve as benchmarks for continuous performance improvement. LM and our contractors also have self-assessments and internal audits to evaluate performance and cost effectiveness.

Local, state, and federal government agencies and tribal nations review LM performance. 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. State agencies serve as either environmental regulators or they own land adjacent to LM sites. At the federal level, LM is regulated by DOE, EPA, and the U.S. Nuclear Regulatory Commission, and the Government Accountability Office conducts reviews that address 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 Chief Information Officer; the Office of Management; the Office of Human Capital; as well as other organizations. The Under Secretary for Science also reviews LM's programmatic performance on a regular basis.

LM also receives formal and informal feedback 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. The personnel located near LM sites and retirees are the stakeholders most impacted 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.

Performance information is used by LM to identify lessons learned, leverage knowledge, and improve service delivery and outcomes. We carefully adopt and monitor the implementation of performance measures to establish program priorities and provide program direction. As a relatively small federal program, LM is typically limited to one or two performance measures in the Department's budget. However, we also establish additional performance measures as part of our HPO commitments with OMB, as well as internal measures as part of our continuous performance improvement initiatives.

Program level and lower tier performance measures have been identified for each goal. LM is working within the Department and with OMB to establish FY 2020-FY 2025 program-level performance measures. The measures listed below are under consideration as the primary indicators of LM's overall programmatic performance. We will use the other performance measures identified in this plan at various levels within the organization.

Goals



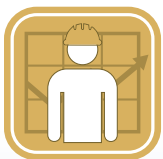
Goal 1

- Periodic monitoring and compliance reports are completed on time and the results are accepted by our regulators as demonstrating remedy performance.
- Post-closure requirements are met and final remedies are maintained in accordance with applicable laws. ICs are effective, durable, visible, and are protective.
- Baseline costs to operate, monitor, and maintain environmental remedies are reduced.
- Five-year and other periodic independent program reviews (conducted by parties not performing the work) validate the scientific and engineering soundness of site remedies and identify opportunities for risk and cost reduction.
- Complete the inventory of DRUM on federal public land.



Goal 2

- Requests for information are answered with high-quality, timely responses that meet or exceed legally mandated time requirements.
- LM's information technology up-time meets or exceeds industry standards.
- Control and reduce (where possible) baseline costs to manage hard copy records.
- Control and reduce (where possible) baseline costs to manage electronic data and information.
- LM's presence on data.gov meets or exceeds other federal organizations of similar size and mission.



Goal 3

- Retired contractor medical and life insurance payments are delivered on time.
- The systems used to predict post-retirement benefit funding requirements are accurate and reliable.
- Business case analyses of contractors' proposals to change retiree medical benefits are developed and submitted to the Secretary of Energy for approval in a timely manner.

Grand Junction, Colorado, Site.





Goal 4

- Meet or exceed sustainability goals for federal agencies.
- Reduce long-term facility operating costs and minimize the use of natural resources through adherence to HPSB guiding principles and LEED standards.
- Evaluate and track potential opportunities for beneficial reuse to increase the number of DOE-owned sites that incorporate beneficial reuse.
- Ensure excess real and personal federal property is transferred to other agencies, organizations, and individuals for their use.
- Manage the ULP so that there are no environmental compliance violations on the lease tracts.



Goal 5

- Complete the milestones identified in the LM HCMP.
- OPM FEVS results show that LM is one of the best organizations to work for in DOE and the federal government.
- LM-identified personnel have received applicable and relevant safety and project management training.
- Site management funding, resource allocation, and science and technology investments are prioritized based on the implementation of well-defined risk management practices.
- Oversight results confirm LM programs are achieving their intended results in a safe, compliant, and efficient manner.



Goal 6

- Overall stakeholder survey results identify higher levels of satisfaction regarding LM communication.
- Attendance at existing visitor centers continues to increase and new visitor centers show an upward trend in visits.
- LM website content, articles in the LM quarterly newsletters, and information provided through other media reflect the subjects that are of the most interest to stakeholders.
- Partnerships with other governments result in more effective solutions at reduced costs.
- Feedback on engagement activities that are tailored to the history, interest, and needs of different tribal nations.
- Periodic reviews of the EJ strategies used to inform, stimulate, and involve the public.

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

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.

Monument Valley, Arizona.



Long-Term Surveillance and Maintenance

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. LM provides LTS&M for sites that are transferred to the federal government for custodial care.

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 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

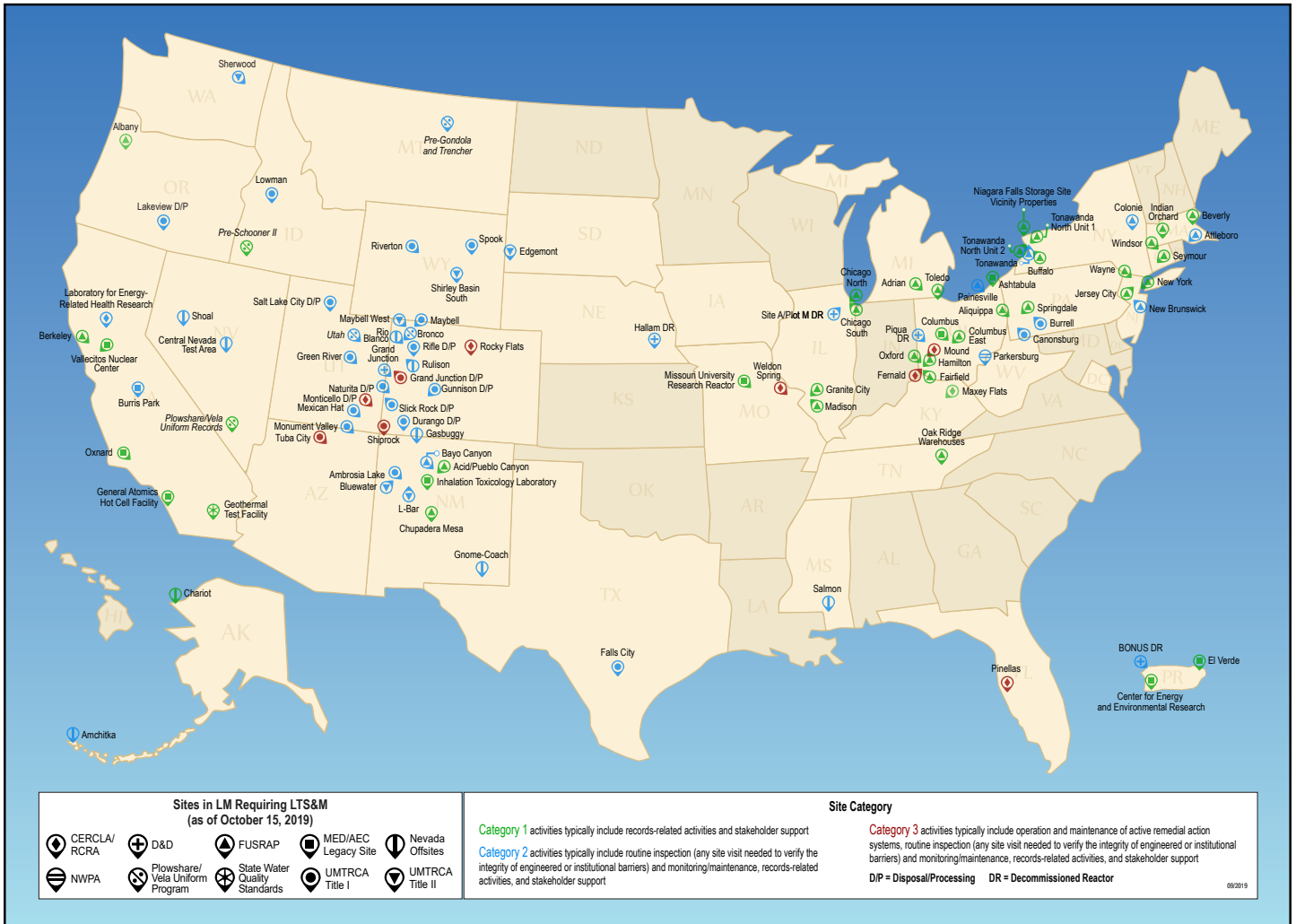
Land-use status upon which there are no restrictions on the types of activities that may occur, including permanent residential use.

Uranium Mill Tailings

Waste produced by extracting or concentrating uranium or thorium from ore.



Current LM Sites



Rocky Flats Site, Colorado.





*Location of future, Elemental Mercury Storage Facility Site (2022), undetermined as of date of issuance.

Anticipated Sites in LM Through FY 2025 Requiring LTS&M					Site Category	
CERCLA/RCRA	D&D	FUSRAP	MED/AEC Legacy Site	Nevada Offsites	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	
NWP	Plowshare/Vela Uniform Program	State Water Quality Standards	UMTRCA Title I	UMTRCA Title II		

D/P = Disposal/Processing DR = Decommissioned Reactor

Chartiers Creek streambank at the Canonsburg, Pennsylvania, site.



A water tank truck sprays the open Grand Junction disposal cell to minimize dust.



A teacher performs a hands-on exercise during an EJ workshop.



An LM Support environmental scientist engages a student in STEM outreach.



A butterfly that was tagged at the Fernald site to study monarch migration.

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	2025
Amchitka Site	AK	2008
Ashtabula Site	OH	2010
Attleboro Site	MA	2019
Bayo Canyon Site	NM	1984
Bear Creek Disposal Site	WY	2023
Berkeley Site	CA	1985
Beverly Site	MA	2004
Bluewater Disposal Site	NM	1997
BONUS Decommissioned Reactor Site	PR	2004
Bronco Site	CO	2019
Buffalo Site	NY	2002
Burrell Disposal Site	PA	1994
Burriss 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
Colonie Site	NY	2019
Columbus East Site	OH	2001
Columbus Site	OH	2008
Conquista Disposal Site	TX	2025
Curtis Bay Site	MD	2024
Deepwater Site	NJ	2024
Durango Disposal/Processing Sites	CO	1996
Durita Disposal Site	CO	2022
East Tennessee Technology Park Site	TN	2022
Edgemont Disposal Site	SD	1996
El Verde Site	PR	2006
Elemental Mercury Storage Facility	N/A	2021
Fairfield Site	OH	1996
Falls City Disposal Site	TX	1997
Fernald Site	OH	2008
Gas Hills East Disposal Site	WY	2022
Gas Hills North Disposal Site	WY	2022
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
Green River Disposal Site	UT	1998
Gunnison Disposal/Processing Sites	CO	1997
Hallam Decommissioned Reactor Site	NE	1998
Hamilton Site	OH	1997
Hazelwood Site	MO	2023
Highland Disposal Site	WY	2024
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	2024
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
Mexican Hat Disposal Site	UT	1997
Middlesex South Site	NJ	2024
Middletown Site	IA	2024
Missouri University Research Reactor Site	MO	2005
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	2022
Parkersburg Disposal Site	WV	1994
Pinellas County Site	FL	2004
Piqua Decommissioned Reactor Site	OH	1998

SITE	STATE	FY
Plowshare/Vela Uniform Sites	NV	2019
Pre-Gondola and Trencher Site	MT	2019
Pre-Schooner II Site	ID	2019
Ray Point Disposal Site	TX	2022
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	2025
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	2022
Spook Disposal Site	WY	1993
Springdale Site	PA	1996
Toledo Site	OH	2001
Tonawanda Site	NY	2017
Tonawanda North Site Unit 1	NY	2009
Tonawanda North Site Unit 2	NY	2009
Tonawanda Landfill Site	NY	2024
Tonopah Test Range Site	NV	2020
Tuba City Disposal Site	AZ	1996
Uravan Disposal Site	CO	2025
Utah Site	UT	2019
Vallecitos Nuclear Center Site	CA	2013
Wayne Site	NJ	2007
Weldon Spring Site	MO	2003
Windsor Site	CT	2019



The decommissioned Boiling Nuclear Superheater reactor in Puerto Rico.

Acronym List

AEC	U.S. Atomic Energy Commission	ICs	institutional controls
AUMs	abandoned uranium mines	IT	information technology
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	LEED	Leadership in Energy and Environmental Design
D&D	Decontamination and Decommissioning	LM	Office of Legacy Management
DOE, Department	U.S. Department of Energy	LMBC	Legacy Management Business Center
DRUM	defense-related uranium mines	LTS&M	long-term surveillance and maintenance
EEOICPA	Energy Employees Occupational Illness Compensation Program Act	NARA	National Archives and Records Administration
EJ	environmental justice	NPS	National Park Service
EM	Office of Environmental Management	NWPA	Nuclear Waste Policy Act
EMP	Emergency Management Program	OMB	Office of Management and Budget
EPA	U.S. Environmental Protection Agency	OPM	U.S. Office of Personnel Management
FEVS	Federal Employee Viewpoint Survey	Q&PA	Quality and Performance Assurance
FUSRAP	Formerly Utilized Sites Remedial Action Program	RCRA	Resource Conservation and Recovery Act
FY	fiscal year	RSLs	Regulatory Supervision of Legacy Sites
GEMS	Geospatial Environmental Mapping System	SRNL	Savannah River National Laboratory
HCMP	<i>Human Capital Management Plan</i>	STGWG	State and Tribal Government Working Group
HPO	high performing organization	ULP	Uranium Leasing Program
HPSB	High-Performance and Sustainable Buildings	UMTRCA	Uranium Mill Tailings Radiation Control Act
IAEA	International Atomic Energy Agency	USACE	U.S. Army Corps of Engineers
		YMP	Yucca Mountain Project

Weldon Spring, Missouri, Site.





U.S. DEPARTMENT OF
ENERGY

Legacy
Management

2020-2025
STRATEGIC PLAN

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Managing Today's Change, Protecting Tomorrow's Future