

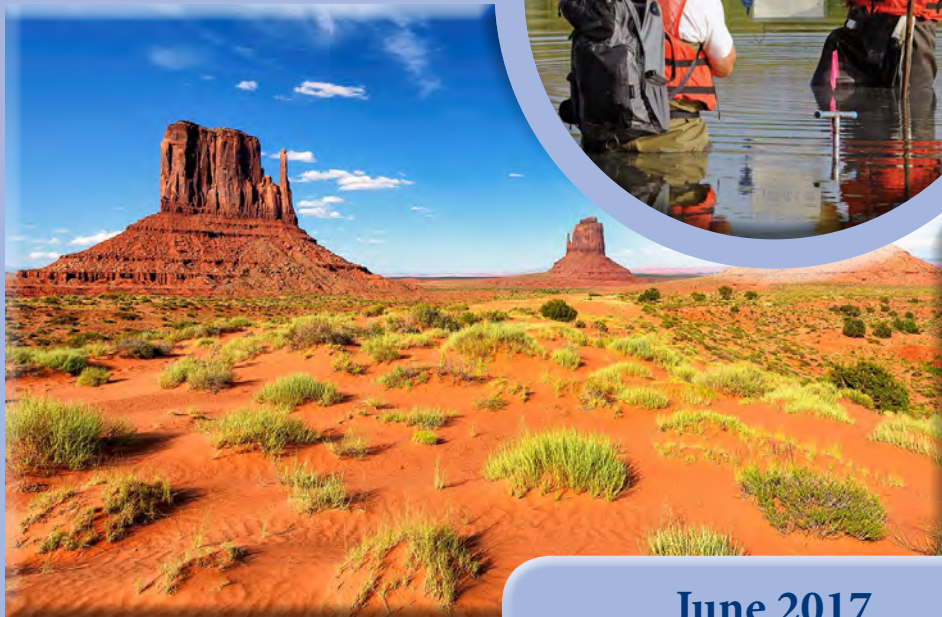


U.S. DEPARTMENT OF
ENERGY

Legacy
Management

FY 2017–FY 2021 High Performing Organization Plan

Office of Legacy Management Submission to the Office of Management and Budget



June 2017

Managing Today's Change, Protecting Tomorrow's Future

*Cover photos (clockwise from top left): Middlesex, New Jersey, Site;
Weldon Spring, Missouri, Site; Rocky Flats, Colorado, Site;
Monument Valley, Arizona. Center: Fernald Preserve, Ohio, Site.*

Letter to the Reader

When the U.S. Department of Energy (DOE or Department) Office of Legacy Management (LM or Office) was established in December 2003, it had missions, personnel, and offices associated with a host of previously existing departmental offices and programs. Although LM's focus was on former defense-related DOE sites across the country where active remediation was complete, the number of full-time-equivalent employees (FTEs), their geographic distribution, and the skill mix of the new organization was not optimal. To address this, LM began a comprehensive review of its mission and structure using techniques in the Office of Management and Budget (OMB) Circular A-76 and high-performing organization (HPO) principles. The results of this review were a more streamlined organization in terms of FTEs and office locations, new expertise to accomplish better defined missions, and stronger internal controls for carrying them out. OMB designated LM an HPO in 2007, only the second federal program to be recognized. The first LM HPO proposal (fiscal year [FY] 2007 through FY 2011) was a performance agreement with OMB where LM established Program Performance and Management Excellence goals, including achieving significant cost savings, along with internal controls and external reporting on performance. LM was successful in meeting the HPO proposal objectives.

OMB no longer has a formal HPO designation. However, LM has continued to see significant advantages in continuing to use the HPO tools. LM developed a second HPO proposal in May 2012 for the period FY 2012 through FY 2016, and as reported in this document, met most of its Management Excellence and Program Performance goals. In preparing this HPO plan, covering FY 2017 through FY 2021, LM is consciously referring to it as a plan with no expectation that it will be officially endorsed. With that being the case, why continue to prepare an HPO plan? Because continuing to perform as an HPO is a valuable means for LM to identify ways of being more productive and efficient, and being accountable for meeting its strategic goals.

- Representatives from all LM offices and teams contributed to the plan. Creating it challenged the organization to identify measureable performance goals for the next five years, consistent with LM's *2016–2025 Strategic Plan*.
- Although not a budget blueprint, the HPO proposal provides a framework by which LM can prioritize its resources and formulate its budget requests, as well as report on accomplishments from previous fiscal years.
- HPO guidance allows LM to communicate with internal and external stakeholders on the status of its major milestones. For example, LM prepares an annual *Post Competition Accountability Report (PCAR)* that it posts on its internet site. The PCAR serves as an important internal control for LM to assess progress and take corrective measures, if necessary, particularly on goals that take multiple years to meet.

Over the performance period of this plan (FY 2017 through FY 2021) there may be reasons at an office, departmental, or federal level, that could change some of LM's priorities. In fact, one of the most significant accomplishments during the last HPO period was something not envisioned when the 2012 plan was prepared—LM's preparation of the *2014 Defense-Related Uranium Mines (DRUM) Report to Congress*. As part of its follow-up to the DRUM report, LM continued interagency engagement to address the mines, work that forms the basis for important goals in this plan.

This third HPO plan provides LM with specific examples on how to implement the priorities of its Strategic Plan and continually strive to stretch goals and attain process improvements, recreating and renewing a flexible, efficient organization ready to take on the new challenges of the Department's legacy sites. We look forward to the hard work and collaboration that will shape our future success.

Executive Summary

LM Intends to Maintain Its Status as a High Performing Organization in the Federal Government

This document is a plan for the U.S. Department of Energy (DOE or Department) Office of Legacy Management (LM or Office) to continue to be a high performing organization (HPO) in the federal government. The U.S. Office of Management and Budget first designated LM an HPO in 2007 and LM developed a follow-on HPO proposal in May 2012. This report summarizes LM's performance alongside its HPO goals and milestones between fiscal year (FY) 2012 and FY 2016, as well as goals and milestones that LM will pursue as an HPO for the next five years, FY 2017 through FY 2021.

DOE created LM in December 2003 to manage post-environmental remediation activities at former defense-related sites that were part of the Department's nuclear weapons complex. The sites have been remediated under a variety of authorities and programs, including DOE's Office of Environmental Management (primarily through the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and the Resource Conservation and Recovery Act of 1976), under various titles of the Uranium Mill Tailings Radiation Control Act of 1978, as part of the Formerly Utilized Sites Remedial Action Program, and through DOE's Decontamination and Decommissioning Program. Nine of the sites are referred to as the "Nevada Offsite Test Areas;" eight

locations in the continental United States where underground nuclear tests were conducted off the Nevada National Security Site (formerly called the Nevada Test Site) and one location where a test had been planned.

LM is responsible for more than 90 sites in the United States and the territory of Puerto Rico. LM conducts long-term surveillance and maintenance (LTS&M) at sites where nuclear waste has been disposed, where residual contamination remains, or where passive or active treatment of groundwater contaminated by radionuclides or other contaminants of concern is being conducted. The major LTS&M objective is to make certain that legacy sites remain protective of human health and the environment.

Half of LM's sites are "clean-closed," for which LM manages only records and stakeholder requests. Other major LM responsibilities include collecting, maintaining, and making site records available to interested parties; ensuring contractor pensions and medical benefits of workers at former DOE sites continue to be honored; sustainably managing LM assets, including real and personal property; implementing beneficial reuse of sites or disposing of real property for use by others; and engaging the public and partnering with tribal nations, other federal, state, and local governments, as well as international organizations.

LM Achieved the Majority of the Goals Established in Its May 2012 HPO Plan and Had Other Significant Accomplishments

Management Excellence goals met by LM between FY 2012 and FY 2016 include:

- Continuing to be a leader in DOE and the federal government in sustainability
- Maintaining a worker safety record better than the DOE average in four of the five years
- Scoring 5 percent or more above the DOE average in the Office of Personnel Management Federal Employee Viewpoint Survey in four of the five years
- Maintaining an average grade among its employees of GS-13 while also increasing promotion potential opportunities

Among Program Performance goals, LM site responsibility increased to 91 by the end of FY 2016 and the Office reduced the cost of LTS&M by 2 percent or more each year, while having no environmental compliance violations. LM disposed of six properties and increased its beneficial reuse sites to 42 percent, including new categories of reuse, such

as historic interpretation and those that fulfilled objectives of the 2015 Executive Order (EO) on Ecosystem Services of land managed by federal agencies. LM also made significant advancement in reducing the liabilities of former workers' pensions through a combination of lump sum distributions and purchasing annuities on workers' behalf.

The most significant accomplishment, which LM did not anticipate when the last HPO plan was finalized, was the preparation of the August 2014 *Defense-Related Uranium Mines (DRUM) Report to Congress*. Pursuant to the National Defense Authorization Act (NDAA) for FY 2013, LM—aided by numerous other federal and state agencies and tribal nations—reported on the location, ownership, status of reclamation and remediation, potential cleanup costs, and the risks posed by 4,225 mines that provided uranium ore to the U.S. Atomic Energy Commission between 1947 and 1970 for defense-related purposes of the United States. Follow-up to the DRUM report is one of the major new responsibilities that LM has in the FY 2017 through FY 2021 HPO period.

Executive Summary (continued)

LM Has Other Planning Efforts that Contribute to this HPO Plan

The strategies, goals, and metrics presented in this HPO plan were drawn from internal and external evaluations. They will be used to improve the efficiency and effectiveness of LM's programs, program- or project-specific strategic planning efforts, and higher-level planning efforts. For example, LM contributes most significantly to Goal 3, Management and Performance, of DOE's *Strategic Plan 2014–2018*. Goal 3 includes the Department's responsibilities for the Manhattan Project and Cold War legacies, performing LTS&M at legacy sites, disposing of excess land for other beneficial uses, and meeting EO goals in sustainability. In FY 2016 LM issued its *2016–2025 Strategic Plan*. In it, LM describes the types of activities and strategies for achieving and measuring successes for each of its five goals from its previous plan. In addition, LM created a new Goal 6, "Engage the Public, Governments, and Interested Parties," a reflection of the increasing importance of LM's collaboration with other federal, state, and local agencies in accomplishing its mission, and its obligations to work with tribal nations. For both this plan and LM's Strategic Plan, employees representing each of LM's teams led the efforts to develop

the plans, and all employees have had the opportunity to contribute to identifying goals and metrics.

Although the number of official LM sites is important, focusing on only the number ignores the significant work that LM does at sites before they are transferred to the Office. LM conducts activities as part of what has informally been referred to as the "site transition" phase. Transition includes developing LTS&M plans, which, depending on the authorities under which the site has undergone remediation, may require approval by regulators such as the U.S. Nuclear Regulatory Commission or the U.S. Environmental Protection Agency; identifying and preserving records; and ensuring appropriate real property instruments, including administrative institutional controls, are in place. It is not uncommon for these due diligence activities to begin as many as five years prior to formal transition. To better capture the importance of this work, the concept of a "transitioning site" is introduced in this plan. The formal designation of when transition activities begin at a site will help LM better align its budget formulation, life-cycle planning, and staffing decisions to when LM work actually begins at future LM sites.

LM Has Established New Metrics and Goals as Part of this HPO Plan

For the period covered by this plan (FY 2017 through FY 2021), LM's goals and metrics reflect growth in the depth and breadth of its mission. Some of LM's Management Excellence goals for this plan were also part of previous HPO plans, but reflect their importance at any time, such as maintaining a safety record better than the DOE average and continuing to strive to be a diverse and inclusive organization. Program Performance goals include working on transition activities at 16 sites that will increase the number of LM sites to 107. As part of follow-up to the 2014 DRUM Report to Congress, LM has started work with the U.S. Department of the Interior Bureau of Land Management and the U.S. Department of Agriculture Forest Service to "verify and validate" (V&V) the condition of defense-related uranium mines on public lands. Nearly 60 percent of the mines identified in the 2014 report are on federal public land managed by these two agencies. V&V work will better define the location of mines; screen for potential risks from various types of radiation, as well as from non-radiological constituents; and identify safety hazards such as open shafts and adits. This work will add significant information to databases on abandoned mines and will assist both federal and state land management agencies with determining if mines need to be reclaimed or remediated.

Another significant responsibility assigned to LM in FY 2016 was to serve as the DOE liaison organization with the U.S. National Park Service in developing the Manhattan Project National Historical Park (MAPR), created as part of the NDAA for FY 2015. The park will eventually provide public access to historical facilities and features at three of the seminal sites for the U.S. Army Corps of Engineers Manhattan Project: the Oak Ridge site in Tennessee, the Hanford site in Washington, and the Los Alamos site in New Mexico. LM will also increase its public outreach and institutional control (IC) efforts over the next five years by updating existing visitor centers at the Mound, Ohio, and Weldon Spring, Missouri, sites. LM is also collaborating with the U.S. Fish and Wildlife Service (USFWS) on a multi-purpose public facility on the Rocky Flats National Wildlife Refuge in Colorado. A major step in creating the refuge occurred in February 2014 when LM transferred approximately 80 percent of the Rocky Flats site to USFWS. Finally, LM will preserve and open to the public the historic cabin at the Grand Junction site in Colorado. In addition to public outreach, LM views its visitors centers and other similar facilities as important ICs for the sites, reminding people of past activities at the sites, the risks that remain, and actions that LM is taking to ensure that public health and the environment are protected.

Executive Summary (continued)

The **Archives and Information Management (AIM) Team** will continue to manage the priority data systems and the licensing support network for the Yucca Mountain, Nevada, project, a major LM responsibility since the project was shut down in 2010. In addition, the AIM Team, and the LM **Environment Teams** that conduct LTS&M, have collaborated to significantly improve the quality of information and data LM shares with interested parties on its internet site by upgrading

its Geospatial Environmental Mapping System that is supported by a new data platform—the Environmental Quality Information System. The **Asset Management Team** will address new requirements in sustainability, contributing to the goals of the 2014 “Federal Strategy to Promote the Health of Honey Bees and other Pollinators,” and examining the resiliency of sites to future disturbance events, such as extreme weather and wildfires.

Changes to the LM Organization

The new LM organization chart reflects its new missions and goals. The **Uranium Mine Team (UMT)** is responsible for DRUM V&V work and managing the Uranium Leasing Program. The **Public and Intergovernmental Engagement (PIE) Team** is primarily responsible for implementing Goal 6 of LM's new Strategic Plan; working to vertically integrate outreach efforts from a national to a site-specific level; incorporating history as a tool maintaining institutional knowledge about LM sites among both LM employees and other interested parties; and working with site and program managers to develop tailored strategies for interacting with stakeholders, regulators, and tribal nations. LM's work with interested parties and the public is an integral responsibility of virtually every employee and team in the organization.

The composition of LM employees is changing rapidly, too. During the organization's first 10 years, it benefited significantly from people who had been involved in the cleanup of some of the major sites for which LM now has responsibility. However, many of those people are retiring (six in FY 2016, including four members of its **Management Team**), and more than 35 percent of LM's current employees will be eligible to retire in the next five years, including additional members of its Management Team.

Parallel with development of this HPO, LM is preparing its new *Human Capital Management Plan (HCMP)*. The HCMP will incorporate the results of an LM Management Team

exercise in June 2016, in which the number of new full-time-equivalent employees (FTEs), and the types of skills needed by the end of FY 2021 to fulfill its mission, were identified. LM began to immediately use the results to prioritize new hires over the next three years, including ones that were made in FY 2016 and ones planned for FY 2017. For example, a **DOE Principal Representative for MAPR** will be a priority hire in the first quarter of FY 2017. The work of the UMT and the PIE Team require that people with new skill sets be hired. The increasing number of LM sites will require new site managers as well. One of LM's hiring strategies is to bring on new site managers who can overlap with a soon-to- retire site manager to aid with knowledge transfer; this is one element of LM's Knowledge Management Initiative. As part of its internal planning, LM is proposing to increase its number of FTEs from 67 by FY 2016 end to 74 by FY 2021. An equally significant need will be successfully hiring new employees to replace those who are retiring.

In the last HPO plan, LM set and largely met a goal of holding Program Direction (PD) funding flat with levels increased only to reflect inflation. Although LM will be judicious, the Office will require increases in PD funding to support items such as:

- LTS&M at new LM sites
- New programs such as MAPR
- The need for UMT travel to new geographic locations
- Training for new site managers

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Section 1: Introduction to LM and the HPO Designation

LM Intends To Continue To Be a High Performing Organization (HPO) in the Federal Government

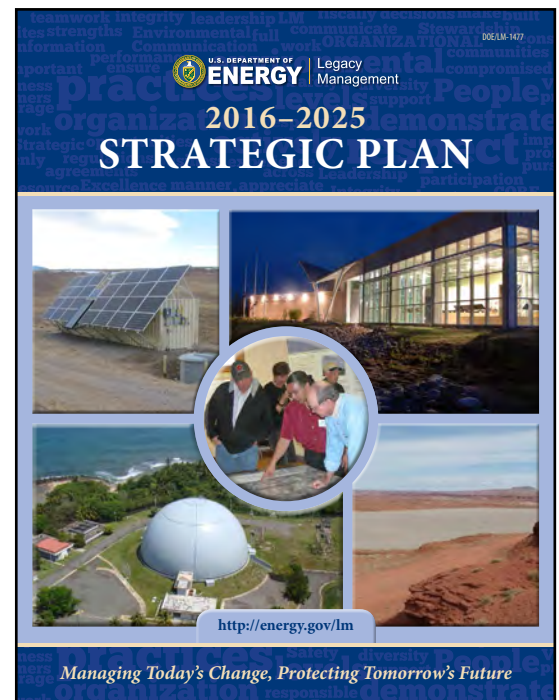
The U.S. Department of Energy (DOE or Department) created the Office of Legacy Management (LM or Office) in December 2003 to manage a host of post-remediation activities at former defense-related sites that were part of the Department's nuclear weapons complex. The sites have been remediated under a variety of authorities and programs, including DOE's Office of Environmental Management (EM) (primarily through the Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] of 1980 and the Resource Conservation and Recovery Act [RCRA] of 1976), under various titles of the Uranium Mill Tailings Radiation Control Act (UMTRCA) of 1978, as part of the Formerly Utilized Sites Remedial Action Program (FUSRAP), and through DOE's Decontamination and Decommissioning (D&D) Program. In addition, nine of the sites are referred to as the "Nevada Offsites (NVOs) Test Areas," with eight locations in the continental United States where underground nuclear tests were conducted off the Nevada National Security Site (formerly called the Nevada Test Site) and one site where a test was planned.

LM sites have no continuing mission for DOE, and although active remediation at them is complete, there may be residual contamination in the subsurface and waste disposal cells or landfills that remains. In addition, some sites already transferred to LM still have operating groundwater treatment systems. When LM was established, it assumed post-closure responsibility for 33 sites being managed by various DOE programs and field offices, including the long-term stewardship program of the Grand Junction, Colorado, Office. Today, LM is responsible for long-term surveillance and maintenance (LTS&M) at more than 90 sites in the United States and the territory of Puerto Rico. The responsibility to manage post-closure activities at sites will continue to grow as active remediation is completed at other sites.

LM's responsibilities extend beyond environmental activities at its sites. They include ensuring that the pensions and health care benefits of former closure-site 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 its sites and facilities are sustainably managed, which includes identifying opportunities for their reuse. LM is also committed to engaging with the public and governments at all levels, and consulting and collaborating with tribal nation governments.

In 2007, as part of an effort by LM to more effectively and efficiently carry out its mission, LM prepared its first HPO proposal and was designated by the U.S. Office of Management and Budget (OMB) as an HPO. Although OMB does not currently have a formal HPO designation, LM has continued to challenge itself by preparing and working to achieve milestones set in a subsequent HPO proposal published in May 2012, as well as with this HPO plan. The performance measures identified herein are an important part of LM implementing its *2016–2025 Strategic Plan* issued in May 2016.

See [Appendix A](#) for a history of LM as an HPO.



Section 1. Introduction to LM and the HPO Designation (continued)

*Table 1. 2012 LM Program Performance Goals and Metrics**

Program Performance Goals/Actions	Goal	Target	Status
Driving Top Priorities			
Increase LM site responsibility from 87 to 109 (sites transferred from EM, USACE, and private licensees under Title II of UMTRCA).	1	FY 2016	Site responsibility increased to 91
Increase records number from 86,000 to 110,000 cubic feet and data terabytes from 26 to 207.	2	FY 2012	114,000 cubic feet
Transfer inspection and reporting functions of Title X of the Energy Policy Act of 1992 (uranium and thorium licensee reimbursement program) from EM to LM.	1	FY 2012	Site inspection function transferred
With Office of Management and Budget and congressional approval, transfer Title X from EM to LM.	1	FY 2015	Site inspection function transferred
Complete analysis of LM management of ongoing mission sites with large footprint reductions (e.g., Hanford, Washington, and Savannah River, South Carolina).	1	FY 2013	Completed
Complete implementation of Five-Year Plan for Grants Mining District.	1	FY 2015	Completed
Renew and implement first four years of the second <i>Five-Year Plan for Addressing Uranium Contamination on the Navajo Nation</i> .	1	FY 2013 to FY 2017	Completed
Maintain compliance with environmental laws and regulations.	1	Annually	Achieved
Dispose of five federal properties.	4	FY 2016	Achieved (six)
Increase federal properties in reuse from 21 to 39 percent by FY 2016.	4	Annually	Achieved (42 percent)
Cut Waste (Improve Efficiency)			
Reduce long-term surveillance and maintenance cost by two percent per year, based on an independently reviewed baseline.	1	Annually	Achieved
Reduce records and information management cost by three percent per year on a cubic foot and terabyte basis.	2	Annually	Achieved

*Summary of LM Program Performance goals set in May 2012 High Performing Organization submission.

Section 1. Introduction to LM and the HPO Designation (continued)

Table 1. 2012 LM Program Performance Goals and Metrics (continued)*

Program Performance Goals/Actions	Goal	Target	Status
Cut Waste (Improve Efficiency) (continued)			
Eliminate closure site pension liability through purchase of annuities.	3	FY 2015	Achieved
Eliminate the <i>Annual Report to Congress on Workforce Restructuring</i> .	3	FY 2013	Achieved
Audit medical reimbursements on a rotating basis for improper payments.	3	Annually	Achieved
Reform Contracting			
Receive and transfer to U.S. Department of the Treasury \$10 million in UMTRCA Title II fees by FY 2016.	4	Annually	Not met
Complete Uranium Leasing Program environmental impact statement.	4	Annually	Achieved
Receive and transfer to U.S. Department of the Treasury a minimum of \$500,000 per year in royalties.	4	Annually	Not met
Close the Information Technology Gap			
Update or archive the Yucca Mountain, Nevada, project LSN.	2	FY 2014	Achieved
Promote Accountability and Innovation Through Open Government			
Establish uranium mining reclamation national standard, and contribute to International Atomic Energy Agency mine and mill site remediation and management guidance.	1, 4	FY 2014	Achieved

*Summary of LM Program Performance goals set in May 2012 High Performing Organization submission.

Section 1. Introduction to LM and the HPO Designation (continued)

*Table 2. 2012 LM Management Excellence Goals and Metrics**

Management Excellence Goals/Actions	Target	Status
Driving Top Priorities		
Achieve EMS sustainability goals (normalized to number of legacy sites). Be a leader in sustainability among DOE offices.	Annually	Achieved
Publish PCAR on LM internet.	Quarterly	Achieved
Conduct independent evaluations of key programs, projects, or technical issues by goal using external auditors.	Annually on a rotating basis	Achieved
Augment LM federal staff by using intra-agency and interagency agreements.	Annually	Achieved
Cut Waste (Improve Efficiency)		
Transfer workforce restructuring policy and oversight to DOE Office of Management.	FY 2013	Achieved
Manage increases in scope by raising federal staff levels by one FTE) per year, to a total of 64 in FY 2016.	64 in FY 2016	Achieved (56 in FY 2016)
Limit program direction increases to levels allowed by the Office of Management and Budget for inflation.	As directed	Achieved
Maintain LM's average grade level at GS-13.0.	Annually	Achieved
Close LM office in Las Vegas, Nevada.	FY 2013	Achieved
Reform Contracting		
Procure a five-year, small business, performance-based incentive contract for environmental surveillance and maintenance, records management, and property reuse.	First quarter, FY 2013	Achieved
Certify all LM task and sub-task monitors are Level II contracting officer representatives and trained on new contract requirements.	March 2013	Achieved

*Summary of LM Management Excellence goals set in May 2012 High Performing Organization submission.

Section 1. Introduction to LM and the HPO Designation (continued)

Table 2. 2012 LM Management Excellence Goals and Metrics (continued)*

Management Excellence Goals/Actions	Target	Status
Close the Information Technology Gap		
Increase teleworking by 20 percent.	FY 2012	Achieved
Enhance security and reduce LM's carbon footprint by switching desktop computers to laptops with docking stations.	FY 2012	Achieved
Promote Accountability and Innovation Through Open Government		
Maintain a safety record better than the DOE average.	Annually	Achieved in four of five years
Improve stakeholder satisfaction level with LM performance by 10 percent by FY 2015 (from baseline established in FY 2012).	FY 2015	Not met
Attract and Motivate Top Talent		
Score more than five percent above DOE average on the annual OPM FEVS.	Annually	Achieved in four of five years
Maintain LM as one of the most diverse and inclusive DOE organizations.	Annually	Achieved
Complete implementation of over 90 percent of actions identified in the LM 2011–2015 HCMP.	Annually	Achieved
Eliminate non-supervisory GS-15 positions.	FY 2016	Mostly achieved
Transfer salary and grade room to expand career ladders to GS-14 level.	FY 2016	Mostly achieved

*Summary of LM Management Excellence goals set in May 2012 High Performing Organization submission.

Section 1. Introduction to LM and the HPO Designation (continued)

LM Met Its 2012 HPO Proposal Commitments

Between fiscal year (FY) 2012 and FY 2016, the period covered by its last HPO plan, LM met or exceeded many of the Management Excellence and Program Performance goals that it set (see [Table 1](#) and [Table 2](#) on pages 2 and 4). Program Performance goals highlights included:

- Continuing to reduce LTS&M costs by 2 percent or more per year, and conducting LTS&M with no environmental compliance violations.
- Completing six property disposals, including the transfer of 80 percent of the Rocky Flats site to the U.S. Fish and Wildlife Service (USFWS) to create the Rocky Flats National Wildlife Refuge in Colorado.
- Successfully managing and maintaining records, including the Licensing Support Network, for the Yucca Mountain, Nevada, project. DOE evaluated Yucca Mountain as a repository for high-level nuclear waste and spent fuel and had submitted a license for it to the U.S. Nuclear Regulatory Commission (NRC) before the project was shut down in 2010.

Among its most significant management excellence HPO achievements identified between FY 2012 and FY 2016 were:

- Continuing to be a leader in sustainability by achieving an “Excellent” rating on the seven sustainability areas that existed throughout the performance period, and beginning to meet goals in three new ones created during the HPO period.
- Maintaining a worker safety record better than the DOE average in four of the five plan years.
- Keeping LM’s average employee grade level at or below a GS-13, while at the same time increasing opportunities for employees to move into GS-14/15 team leader positions.
- Scoring an average of 5 percent or more above the DOE average on the annual Office of Personnel Management (OPM) Federal Employee Viewpoint Survey (FEVS) in four out of the five plan years.
- Streamlining its operations and saving costs by closing the Las Vegas, Nevada, office and transferring workforce restructuring policy and oversight functions to the DOE Office of Management.

There were some areas where LM accomplished less than it projected in the May 2012 HPO plan, including:

- The number of sites for which LM is responsible grew from 87 to 91, which was less than the 112 that it had projected. Nevertheless, LM is completing transition activities required before taking full responsibility for additional sites and is currently planning that the number of sites for which the Office will take full responsibility will increase to 107 during the period of time covered in this FY 2017–FY 2021 HPO plan.
- Based on policies in the National Environmental Policy Act (NEPA) of 1970, the U.S. District Court for the State of Colorado issued an Order in 2011 suspending the Uranium Leasing Program (ULP) because LM had failed to adequately evaluate the potential impacts of an expanded program to mine the 31 ULP tracts in western Colorado. LM did prepare, as it had forecasted, a Programmatic Environmental Impact Statement (PEIS) and issued a Record of Decision in 2014 in which it chose to continue to enter into lease agreements with private mining companies on 29 of the 31 ULP tracts for an additional 10 years. In turn, the “lessees” would pay an annual fee to lease the tract and production royalties on the amount of uranium and vanadium ore produced. However, by the end of FY 2016, the court had not lifted its injunction on the program. Consequently, no royalties for the U.S. Treasury were collected between FY 2012 and FY 2016.

Section 1. Introduction to LM and the HPO Designation (continued)

Table 3. LM Responsibilities Over Time












Description	LM Standup December 2003	HPO Designation February 2007	September 2011	September 2016
 Number of Sites	33	71	87	91
 Volume of Records (cubic feet)	2,000	10,000	86,000	114,000
 Volume of Data (terabytes)	0.5	6.0	26.0	210.0
 Number of Former Workers	600	2,000	10,000	10,000
 Annual Cost of Post-Retirement Benefits	\$17.0M	\$20.0M	\$90.0M	\$65.0M
 Number of Acres Managed	41,973	44,407	58,754	66,222
 Number of Acres/ Percentage of Sites in Reuse	219	1,534	21 percent of sites	42 percent of sites
 Number of Properties Disposed	0	1	5	12
 Program Budget	\$29.2M	\$52.9M	\$159.1M	\$154.1M
 Number of Full-Time- Equivalent Employees	81	58	60	56
 Program Direction Budget	\$13.0M	\$11.2M	\$12.5M	\$13.1M

Chart provides an overview of key metrics that have been tracked since the creation of LM in December 2003 and details LM's responsibilities at the time of its standup, when it was designated an HPO in FY 2007, at the end of FY 2011 (the end of the first HPO performance period), and the close of FY 2016 (the end of the second HPO performance period).

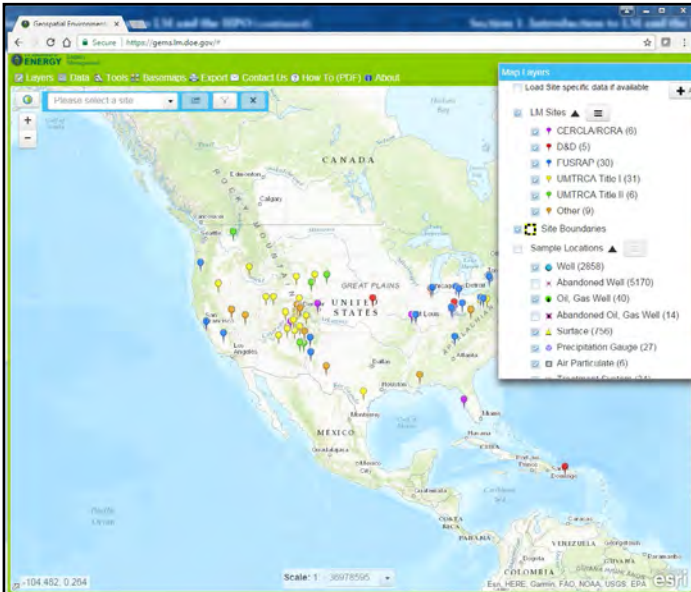
LM Had Significant Accomplishments Beyond Those Forecast in the Last HPO Proposal

Some of the most significant LM accomplishments between FY 2012 and FY 2016 received little attention or were not identified in the May 2012 plan. Some of these now have led to new LM programs for which metrics are identified later in this document, including:

- The National Defense Authorization Act (NDAA) for 2013 required DOE to prepare a report on the number, location, condition, risks, physical hazards, and estimated costs to reclaim or remediate abandoned mines that provided uranium ore to the U.S. Atomic Energy Commission (AEC) for the nation's nuclear weapons program. LM prepared the report for DOE, identifying 4,225 mines in the 2014 *Defense-Related Uranium Mines (DRUM) Report to Congress* (see [map](#) on page 9). LM has continued to work with many other federal and state agencies and tribal nations that assisted in preparing the DRUM report. In particular, LM is collaborating with the U.S. Department of the Interior Bureau of Land Management (BLM) and the U.S. Department of Agriculture Forest Service (USFS), the two federal agencies that managed

public lands where nearly 60 percent of the mines are located. LM will initiate a program in FY 2017 to assist these agencies to verify and validate (V&V) DRUMs. LM began piloting this work in FY 2016. V&V work will include rectifying existing data held by different agencies on the mines, inventorying mine field conditions, performing gamma surveys, collecting soil and water samples for laboratory analysis, screening for physical safety hazards and potential risks to human health and the environment, and maintaining a database on the mines. This work will significantly increase knowledge about the condition of the mines, and help BLM and USFS prioritize which mines to reclaim or remediate.

- In an effort to substantially improve the quality of information and data it shares with interested parties on its website, LM substantially upgraded its Geospatial Environmental Mapping System (GEMS) (available at <https://gems.lm.doe.gov/>) by implementing the Environmental Quality Information System (EQuIS) for storing data that can be imported into GEMS. Historical data is still being migrated to EQuIS, and when complete, it will hold environmental records spanning as many as 40 years for some LM sites. Other website advances are planned as part of this HPO plan.

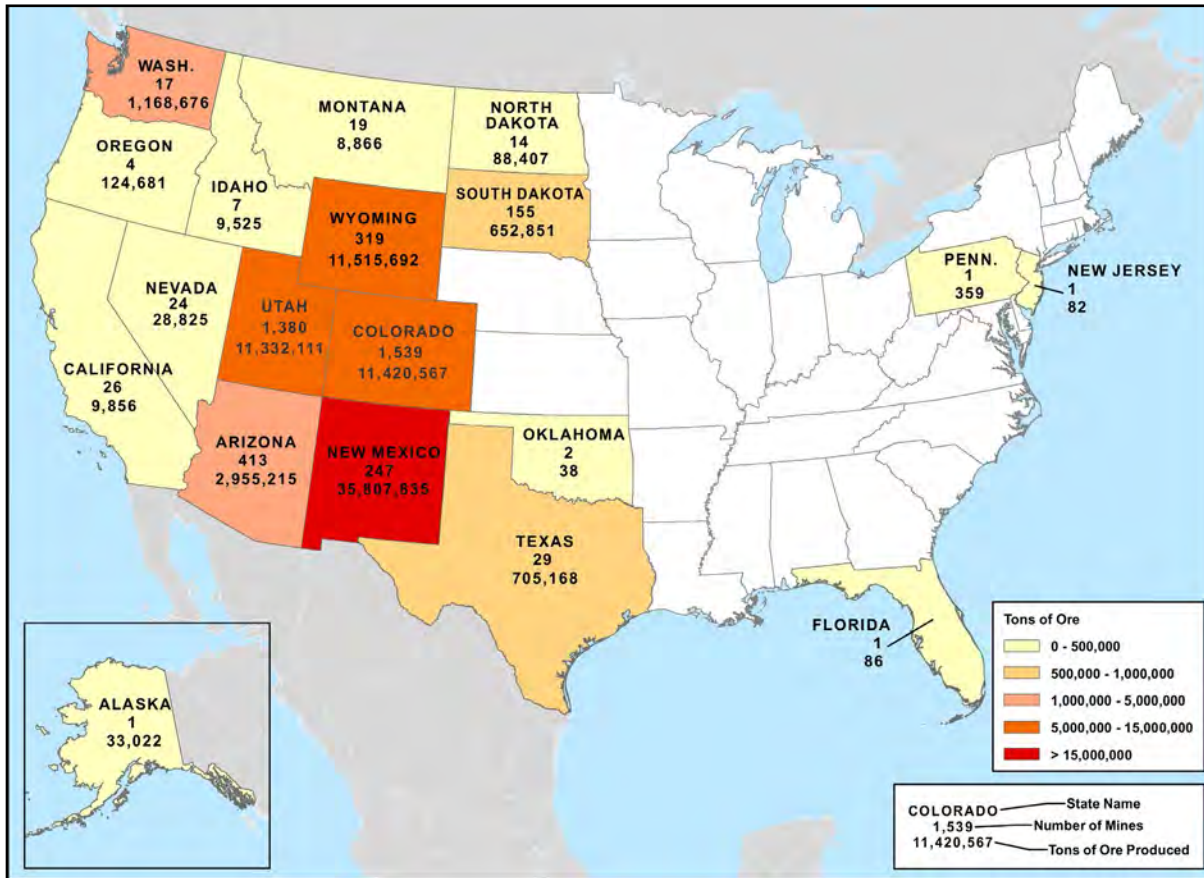


GEMS homepage.

Internal Controls and External Reporting on LM's HPO Goals

The goals and metrics in LM's HPO plan form the basis for many of the organization's annual high-level goals. Meeting them, or making measurable progress toward achieving ones that take multiple years to achieve, are incorporated in performance plans for the LM Director and Deputy Director. In turn, specific activities toward meeting HPO metrics are also incorporated into performance plans of LM Management Team members and their staff. All LM employees have two interim performance evaluations plus a year-end performance evaluation. Results of these evaluations inform the organization on progress being made, and corrective actions that need to be taken to meet HPO goals. In addition, twice each year the LM Management Team discusses the status of HPO milestones in the LM Director's Performance Plan. These actions, in addition to the annual *Post Competition Accountability Report (PCAR)* are some of LM's primary internal controls on its HPO proposal.

Section 1. Introduction to LM and the HPO Designation (continued)



The number of defense-related uranium mine sites and the tons of uranium ore produced for the U.S. Atomic Energy Commission by state.

Although OMB did not formally approve LM's May 2012 HPO proposal, it did recommend that LM continue external reporting on new commitments and performance measures. LM followed OMB's recommendation by monitoring and reporting on the previous HPO goals by submitting three quarterly and one annual PCAR each FY. The quarterly PCARs included a subset of goals and actions that warranted more frequent monitoring and reporting during the year. The annual PCAR included a comprehensive status of all goals and actions contained in the May 2012 HPO proposal.

LM will continue external reporting on the status of its goals and actions in the same manner, and at the same frequency for the FY 2017–FY 2021 HPO plan. The annual PCAR serves as important documentation of the status of major LM program and project milestones, and is a planning tool to identify areas where performance improvement is needed and changes in approaches may be necessary to meet HPO goals, such as:

- Increasing the percentage of eligible sites in beneficial reuse from 21 to 42 percent, including reuse that helped implement the 2015 Executive Order (EO) on Ecosystem Services, as well as providing historic interpretation at LM sites.
- Maintaining benefits of former site workers while supporting contractors' efforts to remove pension liabilities through offering lump sum distributions or purchasing annuities on behalf of participants at four sites.

LM's Mission Is Continuing To Grow with the Addition of New Sites and Programs

LM Was Responsible for 91 Sites at the End of FY 2016

One of the most visible ways in which LM's responsibilities are growing is the increase in the number of sites for which it has some type of post-closure responsibility. Annually, LM publishes its *Site Management Guide* (SMG) in which it forecasts the FY that it will take responsibility for a site. At the end of FY 2016, LM was responsible for 91 sites. Based on the 2016 SMG, LM is projecting it will be responsible for 16 more sites by the end of FY 2021 (see [Appendix B](#)). Among the new sites will be ones that have been remediated by the U.S. Army Corps of Engineers (USACE) as part of FUSRAP and uranium-mill-tailing sites remediated by private licensees under Title II of UMTRCA. No EM program closure sites are scheduled to transition to LM in the next five years. LM groups its sites into three categories: "records only" sites (Category I), sites that require LTS&M but have no operating treatment systems (Category II), and sites at which LM performs LTS&M and operates groundwater treatment systems (Category III).

Fewer sites transferred to LM than were forecasted in the May 2012 HPO submission. However, focusing on only the year a site officially transfers to LM ignores significant work that is conducted during what the Office informally calls the "transition phase." Transition activities, which can begin as many as five years prior to formal site transfer to LM, include important due diligence activities such as:

- Preparing regulatory documents on how site LTS&M will be conducted
- Evaluating site conditions so LM site managers are assured of the actual and interpreted conditions
- Conducting real estate actions to make certain that LM has titles to sites and that administrative institutional controls (ICs) are in place
- Collecting records, both paper and electronic, including site monitoring data collected before LM starts conducting similar activities under LTS&M
- Documenting the operating and remedial history of sites

Two examples of transition activities that occurred in FY 2016 for sites that LM is working to transfer during the next HPO period include:



LM federal and contractor staff performing an inspection of the Bear Creek site.

Bear Creek, Wyoming, UMTRCA Title II Site

Bear Creek is being remediated by the private operator or "licensee" of the uranium mill site. When NRC determines that the site is adequately remediated, it will transfer the site to LM for LTS&M. However, there are many additional steps that LM must take as part of site transfer. In FY 2016, LM submitted a revised site-specific Long-Term Surveillance Plan (LTSP) to NRC describing how the Office will carry out its LTS&M responsibilities. LM had previously developed an LTSP when it appeared that site transfer was going to occur, only to have NRC require the licensee to collect additional data and do more modeling of groundwater at the site. LM is also required to develop a cost estimate for implementing the LTSP. The estimate will be used by NRC to determine a "long-term care fee," a one-time payment that it will require the private licensee to submit to the U.S. Department of the Treasury to offset the costs of LM's LTS&M activities at the site. Although LM had worked to have the site transferred in FY 2016, as initially planned, LM was still addressing questions from NRC about the long-term care fee calculation at the end of the FY.

Section 2. LM's Mission (continued)

In addition, a portion of the Bear Creek site is public land managed as part of the Thunder Basin National Grassland. Consequently, LM is required to submit an application for a land and mineral withdrawal to BLM and prepare an Environmental Assessment pursuant to NEPA to evaluate the potential impacts of the withdrawal. Although the withdrawal does not have to be finalized prior to site transfer, it must eventually be in place for LM to have all the required administrative ICs for the site.

St. Louis, Missouri, FUSRAP Sites

Particularly during the Manhattan Project and the early days of the Cold War, AEC did not have federal facilities for storing and processing all of the ores—or manufacturing and testing all of the components—for nuclear devices, so it contracted with private companies across the United States to provide the facilities. Although many of these private sites were remediated to standards of their time, FUSRAP was established in 1974 to clean up the sites to current standards, as well as to identify other sites eligible to be remediated under the program. Even though there were other changes in program management in the interim, DOE and USACE entered into a Memorandum of Agreement (MOA) in 1999 in which the Department determined whether a site was eligible for cleanup under the program, USACE was responsible for site characterization and remediation, and DOE was responsible for the sites' post-closure responsibilities. Today, LM fulfills DOE's FUSRAP responsibilities.

The St. Louis FUSRAP sites in Missouri are currently undergoing remediation and will eventually transition to LM for LTS&M. They include the St. Louis Airport Site (SLAPS), SLAPS vicinity properties, the St. Louis Downtown Site vicinity properties, and the Latty Avenue vicinity properties. These sites are indicative of the complexities of some FUSRAP sites and the steps LM must take prior to taking LTS&M responsibility for them. Collectively, the four sites consist of 11 operating, or formerly operating, chemical manufacturing facilities. Contaminants of concern include both radioactive (radium-226, thorium-230, thorium-232, and uranium-238) and heavy metals (arsenic, cadmium, and uranium). LM transition activities for these sites are underway and include reviewing the integrity and completeness of records (all media), and assessing the adequacy of realty instruments for the sites, including administrative ICs. LM must become familiar with the bases for how the sites were remediated, and begin developing relationships with site stakeholders and regulators. LM and USACE must also determine how currently inaccessible contaminated areas will be dealt with after the transfer to LM. The St. Louis sites are anticipated to transition from USACE to LM in FY 2021.

Transition Sites—A New Category of LM Sites

To better capture the work that LM conducts prior to formal site transfer, as illustrated by the preceding examples, in FY 2017 LM will implement a new category of sites—Transition Sites—to better communicate LM's work at sites prior to their formal transfer, as well as to align life-cycle baseline planning, budget formulation, and staffing need projections with when LM will need resources for a site. Evaluating activities associated with sites that have already transferred to LM makes it apparent that LM begins expending resources for sites well ahead of the official transfer date identified in the annual SMG. Identifying when transition activities for sites are expected to begin will also help LM properly align its full-time-equivalent employee (FTE) levels with when site transition



1984 historical photo of St. Louis Hazelwood (HISS) and St. Louis Airport (SLAPS) sites.

Section 2. LM's Mission (continued)

work begins. If the transition date for a site is delayed by new issues or requirements, having FTEs aligned with the beginning of transition activities will mean LM has sufficient people available for these situations.

The Transition Sites category is being integrated as part the LM life-cycle baseline planning and budget formulation processes and the category will be added to the 2017 LM SMG. Although LM sometimes begins transition work more than five years ahead of transition, the new category will incorporate a rolling five-year site transition schedule. Sites entering the transition phase will become part of the Transition Sites category in the fiscal year in which transition activities for them begin, and will retain this site categorization until transfer is complete. For example, a site scheduled to transfer to LM in FY 2020 requiring two years of transition activities would be designated a Transition Site in FY 2018 and 2019.



LP-16 shaft headframe in the Long Park area of BLM Uncompahgre Field Office, Montrose, County, Colorado.

LM's Responsibilities Are Growing

DRUM Sites

The 2014 DRUM Report to Congress was the first attempt to identify uranium mines—many of them abandoned—that provided ore to AEC. Although 4,225 DRUM sites across the United States were identified in the report, reclamation or remediation status of only 15 percent of the mines could be determined. Nearly 2,500 DRUM sites are located on federal public lands managed by BLM and USFS. In FY 2016, LM established partnerships with these agencies to pilot site-specific reconnaissance and environmental sampling to V&V the condition of mines on land managed by them. Over the next five years, V&V work will add significant information to databases on abandoned mines and help BLM and USFS determine if a mine requires reclamation or remediation and what priority it should be given. LM is also establishing partnerships with state and tribal abandoned mine lands programs to V&V DRUM sites. LM's goal is to complete V&V for 50 percent of the DRUM sites it identified in its 2014 Report to Congress by the end of

FY 2021. As part of its interagency work with BLM and USFS, as well as other federal agencies (e.g., the U.S. Environmental Protection Agency and the National Park Service [NPS]), LM will maintain the DOE DRUM database that was developed as part of the 2014 Report to Congress. Updates to the database will include changes in the reclamation or remediation status of a mine and changes in information on ownership of the land where a mine is located, among other attributes.

Title X Uranium and Thorium Reimbursement Program

The Energy Policy Act of 1992 established the Title X Uranium and Thorium Reimbursement Program (Title X) to reimburse mill site licensees for a share of their site remediation costs, relative to the percent of product sold to AEC. In 2011, LM began assisting EM with implementing Title X by conducting the financial review of Title X claims to determine if they are eligible for reimbursement. EM continued to be responsible for making payments on allowable claims. LM has proposed that it is strategic for the Office to have full responsibility for Title X because of the Office's future responsibility for the Title X sites as UMTRCA Title II sites. There are 13 uranium and one thorium processing sites in Title X; all of the uranium sites are being remediated under UMTRCA Title II. When remediation is completed, the sites will transfer to LM for LTS&M, records management, and stakeholder engagement. At the end of FY 2016, LM and EM signed an MOA to have Title X transferred to LM, with the Office being responsible for requesting appropriations beginning in FY 2018. The program transfer will require the approval of the DOE Chief Financial Officer and OMB. In this HPO plan, LM is anticipating that this will be approved.

Section 2. LM's Mission (continued)

New Environmental Management System Responsibilities and Related Executive Orders

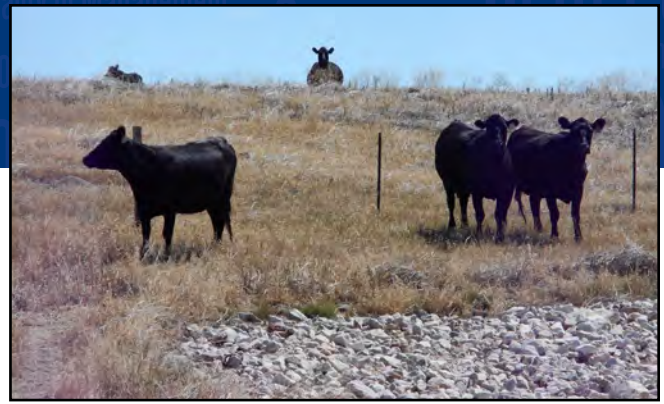
As part of the May 2012 HPO plan, LM met its goal of continuing to be a leader in DOE in sustainability by meeting or exceeding sustainability goals established by EOs issued during this period. New activities included addressing the 2015 EO Memorandum M-16-01, "Incorporating Ecosystem Services into Federal Decision Making," and the 2014 "Federal Strategy to Promote the Health of Honey Bees and Other Pollinators." LM has created an Ecosystem Management Team as part of its overall Environmental Management System Program to implement these federal initiatives. In addition, because some LM sites may pose human health and environmental risks for thousands of years, it is important for LM to understand how resilient or vulnerable site remedies may be when rare events such as wildfires or extreme weather events occur, as well as the potential for changes in the frequency and intensity of such events.

LM had the opportunity to evaluate the resilience of a remedy in July 2016 when a wildfire swept over the Edgemont, South Dakota, UMTRCA Title II Disposal Site. Fortunately, no injuries were sustained and the fire stopped short of the town. Even the rancher who grazes cattle on the grass cover of the disposal cell was able to move his animals out of danger. However, the site's vegetative cover was lost. Fortunately, LM had conducted its annual site inspection less than one week before the fire and was able to begin reexamining the site less than one week after the burn. Although the site will be reseeded with native plants in FY 2017, natural revegetation began within days of the fire. LM's measurements showing that there was no change in radon flux from the cell was strong evidence that the cell performance was not impacted by the fire. Examining sites after rare events such as the Edgemont fire will be one of the means by which remedy resiliency will be evaluated.

Public Outreach and Site Institutional Control Through History, Visitors Centers, and Other Facilities

LM manages interpretive centers at two former EM closure sites. Since opening in 2008, more than 74,000 people have visited the Fernald Preserve Visitors Center in Ohio. Meanwhile, the Weldon Spring Interpretive Center in Missouri opened in 2002 and hosted nearly 275,000 visitors by the end of FY 2016. The centers conduct regular public outreach programs, including ones for school groups; provide visitors with site information; and provide information on activities that can be conducted at the sites (e.g., bird watching at the Fernald Preserve, hiking and biking trails at Weldon Spring). These centers also have site history interpretation displays from when the areas were inhabited by Native Americans, their contributions during the Cold War, their environmental cleanup efforts, and the present LM mission for the sites.

LM views these centers as ICs since they help educate stakeholders about the history of the sites, including risks that remain today, and explain how LM is managing the sites to ensure that they remain protective of human health and the environment. Increasingly, as the populations around LM sites change and LM workers (federal and contractor) retire, fewer people have first-hand experience related to site operation or remediation. The visitors centers are important knowledge management tools for stakeholders and LM employees. Building on the success of the Fernald and Weldon Spring visitors and interpretive centers, LM is in



Cattle grazing on Edgemont disposal cell one week before a wildfire swept through the area.



Timeline exhibit at the Weldon Springs Site Interpretive Center.

Section 2. LM's Mission (continued)

the process of establishing similar facilities at other sites, including:

- The Mound Cold War Discovery Center at the Mound site in Ohio, in partnership with Dayton History, Mound Science and Energy Museum, and Mound Development Corporation.
- A multi-purpose building on the Rocky Flats National Wildlife Refuge in Colorado, by providing funding to and collaborating with USFWS.
- The historical log cabin at the Grand Junction, Colorado, Site, by preserving it for use as a multi-purpose public outreach facility. In July 2016, the Grand Junction office complex was placed on the National Register of Historic Places as a historical district, in recognition of the site's contribution to the Manhattan Project and subsequent Cold War events.



The log cabin at the Grand Junction, Colorado, Office, was listed on the National Register of Historic Places in July 2016.

A new visitors center will be established at the Weldon Spring, Missouri, Site. The original center, besides being heavily used and undersized for its number of visitors, was a pre-fabrication construction and damaged by a tornado in May 2013.

Visitors centers and interpretive signage recognize historic preservation and interpretation as an important type of beneficial site reuse, and act as components of a broader strategy for maintaining institutional knowledge about LM sites for future generations. Among the strategic hires made between FY 2012 and FY 2016, was a full-time LM historian who is on the new Public and Intergovernmental Engagement (PIE) Team. An example of LM's historian's work on historic interpretation site reuse is the assistance that LM is providing to the Carson National Forest to provide interpretive information about the Gasbuggy, New Mexico, Site, where an underground nuclear test was conducted in 1967 to determine the feasibility of using nuclear devices to fracture subsurface rock and increase natural gas production. Gasbuggy was a good candidate for interpretive signage because USFS already maintains a road that provides public access to the site, and which LM uses to access the area for conducting LTS&M. Gasbuggy and five other NVOs test areas managed by LM were part of the Plowshare Program where AEC explored peaceful applications of nuclear devices.

Manhattan Project National Historical Park

A major new responsibility assigned to LM in FY 2016 is representing DOE in establishing and ensuring ongoing operation and maintenance of the recently designated Manhattan Project National Historical Park (MAPR). The park was established as part of the NDAA for 2015 to "... improve the understanding of the Manhattan Project and the legacy of the Manhattan Project through the interpretation of historic resources." The law directed that the park include signature facilities and land at three principle Manhattan Project sites: Hanford, Washington; Oak Ridge, Tennessee; and Los Alamos, New Mexico. As directed by law, DOE and NPS signed an MOA in November 2015 that identifies the roles and responsibilities of each organization. DOE will retain ownership of the land and facilities, continue historic preservation and maintenance of the facilities, and provide safe access for the public. NPS will be responsible for interpreting the story of the Manhattan Project to the public.



Although LM has been involved in planning meetings and site visits with NPS since passage of the law, in August 2016 the Office was designated as the organization within DOE that will coordinate the work of the Department with NPS. A five-year plan has been developed to conduct deferred maintenance and upgrade or create roads, parking, and other facilities to provide safe public

Section 2. LM's Mission (continued)

access to the facilities, including visitors with disabilities (in accordance with the Americans with Disabilities Act of 1990). Some facilities have been open for limited public tours prior to establishment of the park, but the objective for DOE and NPS is to significantly expand public access, enhance the experience, and create a sustainable mission to preserve these historical treasures. LM will implement DOE's responsibilities for the park facilities with the DOE program offices at the three sites, which include EM at Hanford; the National Nuclear Security Administration (NNSA) and EM at Los Alamos; and the Office of Science, Office of Nuclear Energy, NNSA, and EM in Oak Ridge.

LM Manages Several Other Programs or Projects that Have Cross-Cutting Impacts Within LM or Support Broader Federal and International Objectives

Yucca Mountain, Nevada, Records

Since 2010, LM has been successfully maintaining records for the Yucca Mountain project. Yucca Mountain was investigated by DOE as a deep geological repository for spent fuel and high-level radioactive waste. Although the Department submitted a license to NRC in 2008 the project was canceled in 2010. However, LM has and will continue to maintain all records associated with the program, including the Licensing Support Network (LSN) until a different Program Secretarial Office is assigned responsibility for them, since the license has not been withdrawn from NRC. Maintaining the Yucca Mountain records and electronic information is a major LM responsibility, which continues to become more difficult with each passing year, particularly because of the age of 17 hardware and software systems that make up the LSN, as well as other priority data systems. Yucca Mountain records include 14,400 cubic feet of physical records and 96 terabytes of data. LM has identified updates to the hardware and software that need to be made over the next five years to mitigate the risk of not being able to maintain sufficient operability of these systems as technology advances.

Environmental Justice (EJ) Program

On February 11, 1994, President William J. Clinton issued EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which tasked each federal agency to make achieving EJ part of its mission. EO 12898 provides the opportunity for all organizations within DOE, and their stakeholders, to identify actions to achieve EJ goals and objectives. In response to this EO, DOE prepared and issued the first *Environmental Justice Strategy* in 1995. In 2005, responsibility for DOE's EJ program was assigned to LM. Since that time, LM issued an updated EJ Strategy in 2008 and a five-year implementation plan in 2009. To expand on its commitment to EJ in its 2009 plan, on August 4, 2011, DOE joined 16 other cabinet officials in signing a Memorandum of Understanding on EJ. In FY 2017 LM will lead the Department's effort to update its EJ Strategy and issue a five-year implementation plan.

Major EJ program objectives for DOE and other federal agencies have included identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. To this end, EJ has promoted having members of these populations be part of decision-making processes that affect the quality of their environment. Because many minority populations are underrepresented in science, engineering, and public health fields, DOE's EJ program has included directly providing



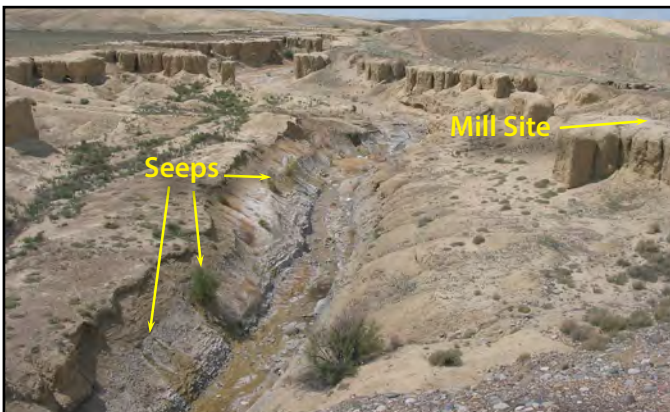
Panel discussion participants at DOE's National Tribal Energy Summit.

Section 2. LM's Mission (continued)

technical assistance and building through education so that members of these communities can contribute to technical decisions made by the agencies. For example, during the last HPO cycle, the LM Grand Junction office benefited from students from historically black colleges and universities and tribal nations who, as part of summer internships, assisted other LM employees performing LTS&M at LM sites.

Applied Studies and Technology (AS&T) Program

Because of the long half-lives of some radionuclides, LM must accept that there will be risks at its sites for hundreds or even thousands of years. AS&T objectives are to conduct research focused on improved understanding of natural processes at its sites, adaptation of emerging technologies to decrease the costs of LTS&M and improve the cleanup effectiveness of treatment systems, such as that used for groundwater. Scientific studies underway to verify remedy performance include work on “persistent plumes” of heavy metals in groundwater, and understanding how cells at UMTRCA sites will change from natural processes, such as soil formation and vegetation growth over time (and if they are detrimental to cell performance). Drones are already being used extensively by natural resource management agencies for taking environmental measurements, and LM is evaluating their use. For example, images taken by drones may quickly pinpoint areas on a site that need to be examined by workers during LTS&M, saving time and money.



Many Devils Wash, near the Shiprock site

A major AS&T success during the last HPO period was collaborative research by LM, the Navajo Nation, and the U.S. Geological Survey to distinguish between contaminants in groundwater from past operation at uranium mill tailings sites and similar naturally occurring constituents in rocks and soils at UMTRCA sites on or near the Navajo Nation. At the Shiprock, UMTRCA Title I Site in New Mexico, high levels of uranium, ammonium, nitrate, sulfate, and other constituents had been measured in seeps along Many Devils Wash (MDW), just east of the former mill. When the mill was operating, processing fluids with these same constituents were discharged to unlined ponds. Consequently, it was long assumed that mill operations were the source of the contaminants in the wash. However, by examining ratios of uranium isotopes, it was determined that the constituents in MDW were naturally occurring, being leached out of the Mancos Shale, a widespread rock unit on the

Colorado Plateau into which MDW is incised. Results of the work were published in a peer-reviewed journal, meeting another objective of the AS&T program to have its work independently evaluated and made available to wider science and engineering audiences. Although LM is continuing to treat groundwater plumes that occur on the terrace and floodplain of the San Juan River that did originate from the mill at Shiprock, it is ending water monitoring and treatment in MDW.

International Programs

Particularly during the last HPO period, LM increased its participation in international activities related to the remediation and post-closure management of legacy sites. The primary multilateral organization to which LM has contributed is the International Atomic Energy Agency (IAEA). LM has also participated in a more limited role in Nuclear Energy Agency initiatives. LM's bilateral technical exchanges have included ones with the United Kingdom Nuclear Decommissioning Authority and the

Section 2. LM's Mission (continued)

Canadian Nuclear Safety Commission. Topics of primary interest to international organizations and other countries include:

- LM's expertise in uranium mill site and uranium mine reclamation and post-closure care. Many countries, particularly in central Asia, were major sources of uranium ore during the Cold War for the former Soviet Union and still have enormous environmental legacies from uranium mining and milling.
- LM's LTS&M program. There is increasing recognition in other nations that "greenfield" remediation of legacy sites is technically impractical and that residual risks and maintenance of remedies must take place.
- LM's records management program, knowledge management (particularly as it relates to maintaining knowledge of risks at legacy sites across multiple generations), and the use of ICs as part of protecting public health at legacy sites.
- LM as a business model for countries or member states of international organizations that have multiple sites with post remedial closure responsibilities. LM is the largest organization in the world responsible for managing former contaminated sites. For countries with multiple sites of their own, LM represents one model by which these responsibilities can be effectively met.

Because of the increasing number of requests for LM to support international activities, the Office plans to designate an International Activities Coordinator. When a request is made for LM to participate in or support an international activity, LM will identify 1) which activities are most beneficial, 2) which activities LM can support in terms of time and funding, and 3) who will represent LM. Besides the gratification of helping other countries develop and implement legacy management programs, participation in international activities affords LM the self-assessment that comes from seeing its own programs through the perspective of other countries, as well as becoming more cognizant of how LM programs must reflect cultural differences. LM can also harvest best practices from other advanced countries participating in workshops and discussions.

LM Made Significant Progress in Completing Portions of Its Mission as Part of the Last HPO Plan

Termination of Pension Plans

LM is responsible for ensuring that pension plans and other post-retirements benefits for more than 10,000 former contractor workers and their dependents at seven sites continue to be provided. As part of an effort to reduce the risks of funding these benefits, DOE-funded contractors have been gradually "terminating" pension plans through annuitization. A pension plan termination results in participants receiving lump-sum payments or annuities purchased from top-rated insurance companies in lieu of traditional pension benefits. Since 2013 LM has sought and received approval, on behalf of active contractors, from the Secretary of Energy to terminate four pension plans, including those for the Fernald; Yucca Mountain; Mound; and Pinellas, Florida, sites. Upon secretarial approval, the process takes about 18 months to complete. To date, the Fernald and Yucca Mountain pension plans have been terminated, while termination of those for Pinellas and Mound is in process. LM will seek approval for termination of the remaining pension plans in FY 2017. Upon completion of all approved terminations, DOE will realize a savings of more than \$80 million over the lifecycle of the plans and will have reduced liabilities by nearly \$800 million. Most importantly, the Department will have met its commitment to ensure retirement income benefits for former workers of LM closure sites. LM's obligations to the former contractor workforce will not end upon completion of the pension plan



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

Section 2. LM's Mission (continued)

terminations. Post-retirement benefits (health and life insurance) costs are expected to continue for retirees (and spouses) of closure sites for the next 40 to 50 years, although the number of eligible individuals will decrease substantially with time.

Community Transition Program

With the fall of the Berlin Wall in 1989, the signing of the 1991 Strategic Arms Reduction Treaty, and the dissolution of the Soviet Union later that same year, the need for nuclear weapons production was significantly reduced. Although new jobs were created cleaning up the DOE defense complex, the downsizing and closure of many major DOE defense facilities had a dramatic economic impact on the communities around major DOE sites. Through Section 3161 of the NDAA for 1993, DOE initiated the Community Transition (CT) Program to reduce the social and economic impacts of workforce restructuring on communities near DOE facilities. The program encouraged affected communities to chart their own economic development future by establishing Community Reuse Organizations (CROs) to receive grants for programs to alleviate the impacts of job losses. In total, 15 CROs were established. LM began managing the CT Program in 2003. Over the life of the program, Congress authorized \$260.5 million and DOE provided an additional \$34.1 million funding for CT activities. DOE also transferred excess real and personal property to the CROs to be used as an incentive to attract new businesses and provide new uses of DOE assets. In FY 2016, the last of the "3161" funds were obligated as part of LM closing down the CT program. Although no funding remains, several CROs are still active, have retained their ability to receive excess personal and real property from DOE, and continue to be advocates for their DOE sites and communities. LM prepared a summary report of the accomplishments of the CROs in FY 2016. LM considers this programmatic function to be complete.

Complete Resolution Is Pending on Some Potential Changes to LM's Responsibilities Since the Last HPO Plan

Mercury Storage Facilities

The Mercury Export Ban Act (MEBA) of 2008 prohibited the export of elemental mercury from both federal and private sources in the United States. In December 2008, the Acting Deputy Secretary of Energy issued a memorandum regarding MEBA requirements for DOE to construct and operate one or more mercury storage facilities.

Responsibility for siting and constructing the facilities was assigned to EM, and facilities operation was assigned to LM. EM issued a 2011 PEIS and a 2013 Supplemental Environmental Impact Statement, which selected a preferred site in Texas for constructing a mercury storage facility. Because EM has experience in building and operating waste storage sites and because it makes sense to consolidate these activities into one program, EM and LM have agreed that EM will have full responsibility for DOE's responsibilities under MEBA. The original date for establishing mercury storage capability under MEBA was January 1, 2013. However, MEBA was amended in June 2016 to extend until January 1, 2019, the date for DOE to have an operating facility for storage of elemental mercury. In FY 2016, EM and LM signed a memorandum that would transfer responsibility for construction and operation of a mercury storage facility to EM. In this HPO it is assumed that this transfer is approved by OMB and the U.S. Congress.

Section 2. LM's Mission (continued)

LM Activities for Continuing Mission Sites

As identified in the May 2012 HPO proposal, LM evaluated the feasibility of conducting LTS&M and other long-term stewardship responsibilities at DOE sites with continuing missions, particularly given DOE's emphasis on reducing the footprint of land managed by the Department at such sites. LM made site visits or had discussions with EM about closure sites that have completed remediation on portions of the sites, but where the cleanup mission will continue for many years, frequently because of ongoing treatment of radioactive waste. It was not feasible for LM to do all of the LTS&M activities at these sites. One roadblock was the difficulty of integrating the responsibilities of contractors who were performing mission-related work. However, some ongoing mission sites have expressed interest in LM taking responsibility for parts of their long-term stewardship responsibilities prior to complete remediation of the site. For example, in 2014 LM worked with the Richland, Washington, Operations Office to transfer custody of about 800 cubic feet of Hanford site records as a pilot project to support early transition of LTS&M responsibilities. This transfer was successful and the Richland Operations Office has indicated that they will support the early transfer of additional Hanford records to LM. Another post-closure responsibility that LM might consider managing ahead of full site transfer would be pensions and other benefits for former DOE contractor workers at closure sites.



Visitors view the Fernald Preserve from the production area overlook, during the Decade of Difference event.

Other Planning Efforts Supporting LM's New HPO Proposal



DOE Strategic Plan 2014–2018

DOE's mission is enormous, carried out by more than 14,000 federal employees, over 90,000 contractors, and nearly 30,000 researchers at 85 field locations and 17 national laboratories. In its most recent Strategic Plan, the Department's mission is grouped into three major goals: 1) Science and Energy, 2) Nuclear Security, and 3) Management and Performance. Although it contributes to objectives in other goals, LM's primary contributions are for Goal 3, Management and Performance, which includes addressing the Manhattan Project and Cold War legacy responsibilities, performing LTS&M of legacy sites, disposing of excess land for other beneficial uses, and assisting DOE in meeting sustainability goals established in presidential EOs.

The LM Strategic Plan Is a Roadmap Through FY 2025

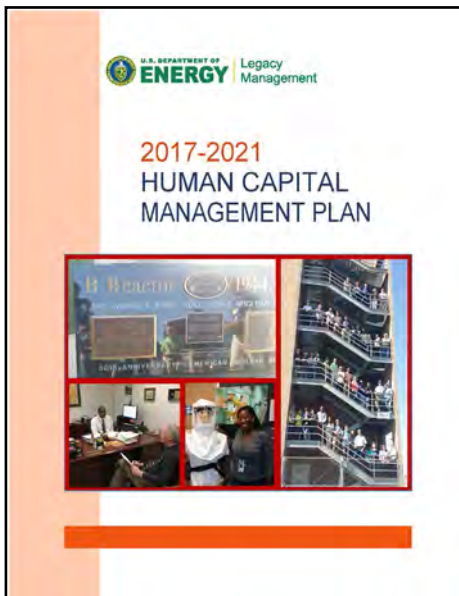
In May 2016 LM published its *2016–2025 Strategic Plan*, which describes the scope and strategies LM will use to achieve its mission. This plan is organized around the five goals from its *2011–2020 Strategic Plan*, as well as a new one, Goal 6, Engaging the Public, Governments, and Interested Parties. Each goal includes a situational analysis, objectives, and strategies for meeting the goal, along with the types of performance measures that LM will use. Although some of its performance measures are directly incorporated, this HPO plan provides metrics by which LM will measure its effectiveness in implementing its Strategic Plan.

LM 2017–2021 Human Capital Management Plan

Parallel with development of this HPO proposal, LM prepared its *2017–2021 Human Capital Management Plan (HCMP)*. There have been significant changes in the LM staff because of retirements, new members of its Management Team, and strategic hires required for new mission responsibilities. The HCMP describes:

- Where LM is today
- The objectives of changes to its organizational structure implemented in FY 2015 and FY 2016
- Current and projected future staffing levels, grade structure, and technical capability needs, including ones required for new parts of LM's mission
- Workforce planning, diversity, and the geographic distribution of its staff
- How LM plans to achieve its human capital objectives

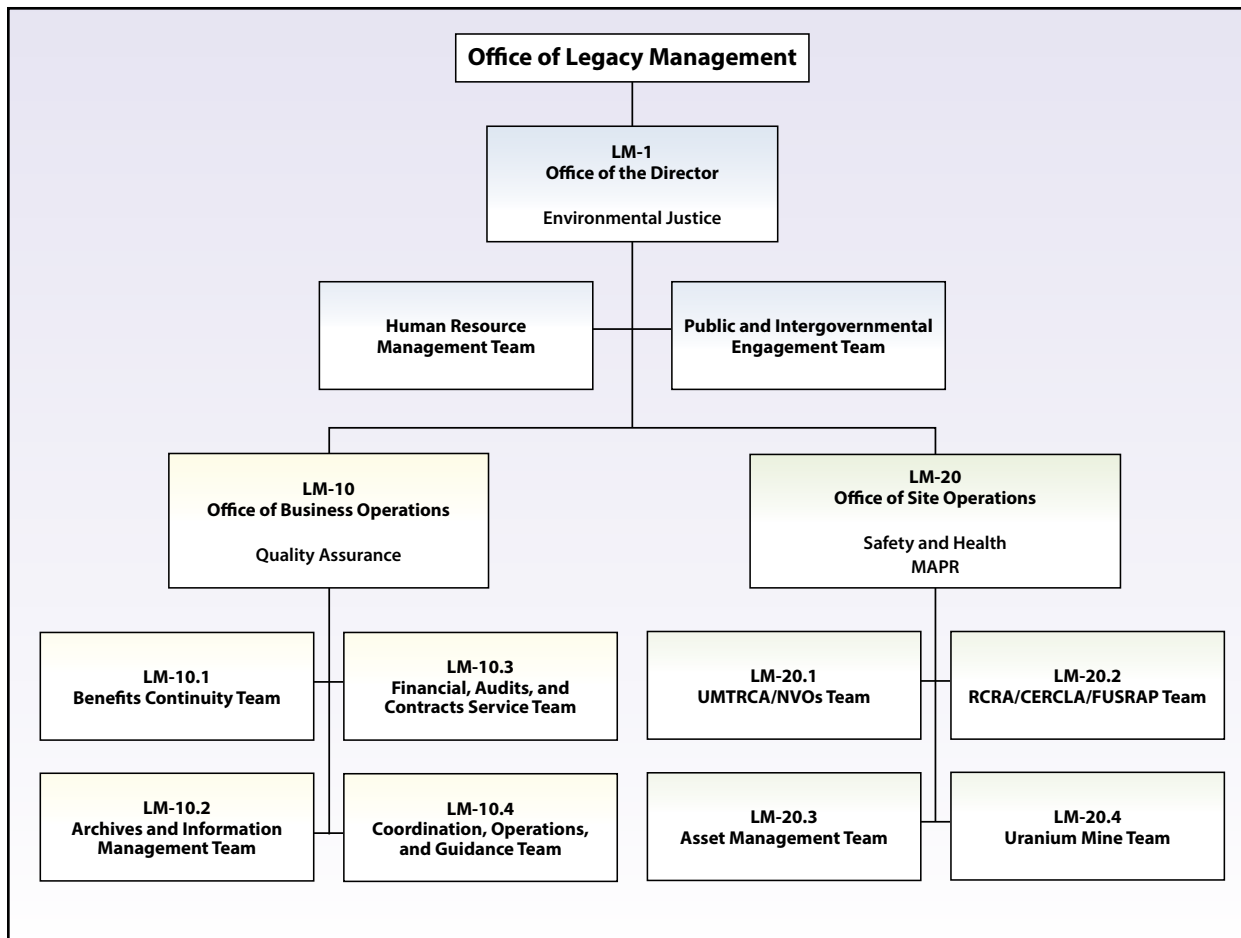
Portions of the HCMP are summarized in [Section 4. The LM Organization](#) (page 21).



Section 4: The LM Organization

The LM Organization Reflects Its New Responsibilities and Significant Changes in the Makeup of Its Employees

LM's organization chart reflects new missions for which the Office is now responsible, as well as the adoption of Goal 6 in its *2016–2025 Strategic Plan* (see [LM Organization Chart](#) (below) and [Table 4](#) on page 24). Less visible on the organization chart are new hires and plans to implement LM's continuing missions. For the first 10 years of its existence, LM benefited significantly from employees who had been involved in the remediation of sites at which LM now conducts LTS&M, and in a few cases worked at them when they were still operating. These employees brought significant first-hand knowledge of the sites when they joined LM. However, many of these site managers are retiring and the rest are eligible to retire now or by the end of the period covered by this HPO plan. Consequently, LM has begun a more formal succession hiring strategy so that new site managers can benefit from more senior ones before they retire.



LM Organization Chart

Section 4. The LM Organization (continued)



Members of the PIE Team joined other LM employees attending the annual Waste Management Conference in Phoenix, Arizona.

New Teams and Positions Align With New Programs and Strategic Goals

PIE Team

Although virtually all LM employees have some involvement in interfacing with stakeholders, as well as various levels and types of governments (local, state, federal, and tribal nations), LM made a decision to improve integration of its work with stakeholders by creating a new Goal 6, Engage the Public, Governments, and Interested Parties, in its *2016–2025 Strategic Plan* and by creating the PIE Team. The concept of integration is from a national to a local level, as well as having local site-specific engagement shape national policies. Finally, the PIE Team will continue to publish LM's quarterly *Program Update* newsletter and interface with DOE Headquarters organizations such as the Office of Public Affairs and the Office of Congressional and Intergovernmental Affairs.

The PIE Team's responsibilities include leading LM's participation in national forums such as the State and Tribal Government Working Group, the Energy Communities Alliance, and the National Conference of State Legislatures, among others. The team uses history as a means of preserving knowledge about sites and creates reuse opportunities at sites with historical significance, including the sites that will become part of MAPR.

The PIE Team will assist site managers to develop novel approaches to provide information and seek input from stakeholders and other governments, including tribal nations. Partner stakeholders and governments expect timely access to information on LM sites and other programs tailored to specific audiences. LM needs input from these groups to have consent on site-specific and programmatic decisions. Initial site-specific PIE Team efforts include assisting site managers with public outreach related to the evaluation of groundwater treatment alternatives at the Tuba City UMRCA Title I site on the Navajo Nation in Arizona; and, in collaboration with USFWS, working with local governments and stakeholders to address concerns about providing the first unescorted public access to the Rocky Flats National Wildlife Refuge in Colorado.

A cross-cutting initiative that the PIE Team will be responsible for during this HPO period is creating a Knowledge Management Plan for LM. The plan will address two major responsibilities. First, with the pending retirement of many of the first-generation LM site managers, there is a need to ensure that new employees responsible for sites have the knowledge or access to information to continue to manage the sites effectively. In addition, the stakeholder community, regulators, and tribal nation representatives who live around many LM sites are changing. Similar to LM's newer site managers, they do not have first-hand experience with decisions that were made during remediation or transfer of sites to LM. Helping new stakeholders understand the history of sites and the basis for previous management decisions will be an ongoing knowledge management responsibility for LM.

Uranium Mine Team

Among the most significant new LM organizational changes was creation of the Uranium Mine Team (UMT). Its responsibilities include management of LM's Uranium Leasing Program (as related to LM's Goal 4), as well as LM's continuing role in addressing DRUM sites (under LM's Goal 1) that began with preparation of the 2014 DRUM Report to Congress. There was significant interagency coordination in developing the 2014 report that continued with a multi-agency proposal to OMB to

Section 4: The LM Organization (continued)

address the physical safety hazards and risks to human health and the environmental posed by the mines. As part of LM's role in representing the Department, it will begin work with BLM and USFS to conduct V&V of DRUM sites on federal public lands managed by the two agencies beginning in FY 2017. The work will focus first on DRUM sites in Colorado and Utah, the two states with the largest number of mines. LM also signed a Memorandum of Understanding with the BLM New Mexico State Office. DRUMs in New Mexico provided more uranium ore to AEC than those in any other state.

DOE MAPR Principal Representative

LM will lead DOE's efforts to coordinate with NPS to create and manage MAPR. A strategic hire for FY 2017 is an MAPR Principal Representative who will report to the LM Office of Site Operations (LM-20) Director, and will coordinate NPS and DOE collaboration at each of the three DOE locations that make up the park.

Other Teams and Positions

In addition to the PIE Team, the UMT, and the MAPR Principal Representative, LM created a separate Human Resource Management (HR) Team in 2013 to give greater visibility to the importance of human resources for LM to be successful. The HR Team will continue to work with the DOE Office of Human Capital in recruitment. In addition an LM Deputy Director position, part of the Senior Executive Service, was reestablished in 2015. Finally, LM plans to fill a Quality Assurance (QA) Specialist position in the first quarter of FY 2017. QA has been the responsibility of the Safety and Health (S&H) Officer, but the workload necessitated a separate position. Both the QA Specialist and the S&H Officer have responsibilities across the entire organization. The former will report to the Director of the Office of Business Operations while the latter will report to the LM-20 Director.



LM Has Made and Will Make Important Strategic Hires

Although an individual hire may fill more than one objective, LM has identified and begun using five major objectives in prioritizing and hiring new employees into the organization (see [Table 4](#) on page 24), including filling needs for new missions and goals described in this HPO Plan. The HR Team, with input from the LM Management Team, maintains a prioritized list of new hires. For a significant portion of the last HPO plan, LM was well below the FTE level it had planned for. However, during FY 2016 and in FY 2017, LM has hired or plans to hire new employees to meet four of the five objectives. For example:

- In FY 2016, a new Beneficial Site Reuse Lead was hired to fill an important vacancy on the Asset Management Team, and a new Records Manager was hired for the AIM Team.
- A Principal Representative will be hired to head LM's leadership role for MAPR, and a Mine Reclamation Specialist will be sought for the UMT to V&V DRUM sites.
- The principal area of existing mission growth for LM will be transition of new sites into LM for LTS&M, and some new site managers were hired in FY 2016 to support this increase.
- LM has senior site managers for some of its more complex sites, such as Rocky Flats, that will be retiring soon. These site managers brought exceptional expertise to LM because they worked at LM sites when they were still operating or undergoing remediation. However, because of their pending retirements, LM has hired new site managers and will seek to hire others so that there will be one to two years of overlap for new employees, so they can benefit from knowledge transfer by working with the senior site managers before they retire.

Section 4: The LM Organization (continued)

Table 4. LM Functional Activities

Program Element	Program Functions and Direct Reports	Current Scope
LM-1: Office of the Director		
Director and Deputy Director	Environmental Justice Program Human Resource Management Team	
Human Resource Management Team	Supports employee hiring and processing. Implements LM's human resources program and LM's HCMP.	<ul style="list-style-type: none"> • Develops and implements LM's HCMP • Supports LM recruitment process • Manages performance awards process
Public and Intergovernmental Engagement Team	Integrates outreach and communication with the public; federal, state, and local governments; and tribal nations.	<ul style="list-style-type: none"> • Represents LM in stakeholder and intergovernmental forums • Maintains LM websites visited by 2,000 people daily • Answers stakeholder inquires • Publishes LM <i>Program Update</i> (quarterly newsletter) • Preserves history of LM sites • Develops site- and program-specific engagement strategies

Section 4: The LM Organization (continued)

Table 4. LM Functional Activities (continued)

Program Element	Direct Reports and Program Functions	Current Scope
LM-10: Office of Business Operations		
Office Director	Quality Assurance Specialist	
Benefits Continuity Team (LM-10.1)	Meets the Department's commitment for retired contractor workers' pensions and medical benefits after closure of applicable DOE sites/facilities.	<ul style="list-style-type: none"> Oversees contractor pension plans for four sites (total assets of approximately \$800 million) Manages post-retirement benefits for contractors at closure sites (approximately 10,000 retirees and family members)
Archives and Information Management Team (LM-10.2)	Manages records and information for LM sites.	<ul style="list-style-type: none"> Manages 114,000 cubic feet of records and more than 232 terabytes of data Processes approximately 1,800 requests for information each year (e.g., Freedom of Information Act, Privacy Act, and Energy Employees Occupational Illness Compensation Program Act) Develops, operates, and maintains secure IT systems supporting LM mission and activities
Financial, Audits, and Contracts Service Team (LM-10.3)	Coordinates LM program planning and budget formulation and execution. Implements and manages financial reporting and internal controls and coordinates the acquisition of goods and services.	<ul style="list-style-type: none"> Manages LM program finances Oversees procurement and LM support services contract (performed by contracting officer representative) Coordinates with DOE HQ staff offices Manages performance measurement administration
Coordination, Operations, and Guidance Team (LM10.4)	Provides administrative services, including monitoring and controlling correspondence, coordinating training programs, and managing domestic and foreign travel.	<ul style="list-style-type: none"> Manages domestic and foreign travel Controls correspondence and document tracking Coordinates with Office of the Executive Secretariat Provides training administration Directs continuity of operations, emergency planning, and personnel security Maintains supplemental directives, policies and procedures

Section 4: The LM Organization (continued)

Table 4. LM Functional Activities (continued)

Program Element	Program Functions and Direct Reports	Current Scope/Responsibilities
LM-20: Office of Site Operations		
Office Director	S&H Officer DOE MAPR Principal Representative	
UMTRCA/NVOs Team (LM-20.1)	Manages 91 current LM sites and transition of new sites to LM.	<ul style="list-style-type: none"> • Conducts operation and maintenance of active remedial action systems • Performs long-term surveillance and maintenance, routine inspections, and records-related activities • Provides stakeholder support • Expects to transition work on 16 more sites by end of FY 2021
CERCLA/RCRA/FUSRAP Team (LM-20.2)		
Asset Management Team (LM-20.3)	Provides real and personal property management support to all LM sites. Supports cross-cutting activities in the areas of environmental compliance, sustainability, and beneficial site reuse.	<ul style="list-style-type: none"> • Controls real and personal property • Manages LM fleet • Oversees beneficial reuse of sites • Provides facility and site security • Maintains environmental management system and sustainability
Uranium Mine Team (LM-20.4)	Manages DOE responsibility for 4,225 DRUM sites and oversees the ULP.	<ul style="list-style-type: none"> • V&V DRUM sites on land managed by BLM, USFS, and state agencies • Oversees 31 ULP tracts over a 25,000 square-mile area in southwest Colorado

Section 4: The LM Organization (continued)

LM estimates and budgets for FTEs based on mission requirements, as well as the need for succession planning and proposes that number as part of the program direction portion of its budget submittal. For the period of FY 2017 through FY 2021, LM internal planning for program direction would have its FTE count increase from 56 at the end of FY 2016 to 74 by FY 2021.

The Need for Future Strategic Hires Also Creates Promotion Opportunities for LM Employees

LM tracks when its employees are eligible to retire and the impacts of those retirements on LM's capabilities to implement its mission. Although some eligible employees have indicated they are going to work beyond their retirement eligibility date, LM anticipates hiring for succession planning purposes. Although succession planning for site management was an important reason for hiring done in FY 2016, it is also important for other LM responsibilities. For example, efforts are already underway to have a newly hired employee assume responsibilities for the HR Team, and another employee is being trained as the backup Contracting Officer Representative for LM's primary support contractor.

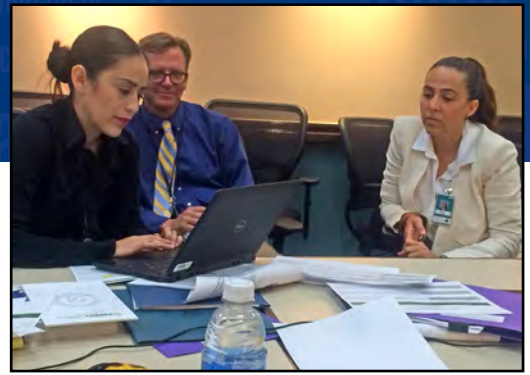
During the FY 2017 through FY 2021 HPO period, LM is cognizant that 35 percent of its employees will be eligible to retire. Although some of the hires made in FY 2016 addressed succession planning for some of these retirements, LM has identified other hires needed as part of implementing this HPO plan to maintain capabilities for new and existing missions over the next five years.

Among employees eligible to retire during this HPO cycle are 10 of the 13 members of the LM Management Team. This follows significant changes to the makeup of the Management Team in FY 2016. Six Team Leader and one Office Director positions were filled by promotions from within the organization. An important factor that made these promotions possible was LM gaining permission to hire Team Leaders as GS-14s with promotion potential to GS-15. Going forward, the GS-14/15 Team Leader positions will provide promotion opportunities for GS-13 employees who are interested in management positions.

LM Continues to Make Progress on Meeting Grade Structure Goals

LM continued to meet one human resource HPO goal in its last performance period and made progress on another. LM maintained an average grade at or below a GS-13 at the same time it increased promotion potential for LM employees through creation of the GS-14/15 Team Leader positions, and by creating more Site Manager positions that have promotion opportunity to GS-13. Higher grade levels are balanced by hiring employees into career ladder positions that begin at lower grades, but which have the opportunity for the employee to advance to higher grades. In addition, LM reduced the number of non-supervisory GS-15 positions. With strategic hires planned for FY 2017, there will be two such positions with promotion potential to GS-15, although both of these will manage programs (the EJ Program Manager and the DOE Principal Representative for MAPR) that have significant responsibilities for coordination throughout DOE and with other agencies.

LM has and will continue to make use of expertise from other organizations through temporary assignments and details to meet its missions. For example, a Presidential Management Fellow with the DOE Energy Information Agency will do a rotational assignment with the LM UMT starting in November 2016 to help set up its DRUM sites database. LM employees have also assisted other parts of DOE. For example, during the last HPO period, LM's S&H Officer served in the same capacity on a temporary assignment for the EM Moab Project in Utah, the largest ongoing uranium mill tailings remediation project in the world.



LM employees participate in a knowledge management assessment.

Other LM Human Resource Considerations

Sustaining Superior Employee Engagement, Performance, Development, and Morale

Simply recruiting talented employees is not enough. According to results of past and recent OPM FEVS, employee retention is linked to the feeling that the work is important; that different parts of the organization collaborate; that there are opportunities for professional development, such as training or special assignments; and that there is promotion potential. In the last HPO proposal, LM set a goal of exceeding the DOE average by 5 percent or more in FEVS. LM achieved this in four of the five years between 2012 and 2016, including the most recent survey conducted. However, having favorable overall scores is not enough. The LM Management Team is currently evaluating the survey questions where LM scores were lowest or were significantly lower than in previous years. Team Leads are discussing these questions with their staff and developing action plans to address core areas that need improvement. More than 90 percent of LM's employees participated in the last survey, so there is high confidence that results are representative of the Office.

Geographical Redistribution of Federal Employees To Improve Program Management and Interaction with Regulators and Stakeholders

As it had proposed as part of the last HPO proposal, LM closed its office in Las Vegas, Nevada, and moved the functions of employees there to offices in Colorado for better integration with more LM employees. In addition, LM has consolidated its federal employees in Ohio to the Fernald Preserve office. However, these employees are also responsible for LTS&M, regulatory interaction, and stakeholder interface for the Mound site and the Piqua, Ohio, Decommissioned Reactor Site. Reflected in the map of sites transitioning into LM (see [Appendix B](#)), the FUSRAP sites that are transitioning to LM are located in the Midwestern and Northeastern United States. As part of implementing this HPO plan, LM will be giving consideration to locating new hires to those parts of the country to manage the sites in a more cost-effective manner and to allow better interaction with regulators and stakeholders in those regions.



LM staff were briefed on site information at an LM All-Hands Training in Ohio.

Section 4: The LM Organization (continued)

Table 5. LM Hiring Objectives

LM Hiring Objectives
Review and fill existing vacancies as needed
Support new missions
Support growth in existing missions
Plan for succession
Create positions to support growth of new and existing missions



Section 4: The LM Organization (continued)



Goal 1. Protect human health and the environment.

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



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

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



Goal 3. Safeguard former contractor workers' retirement benefits.

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



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

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



Goal 5. Sustain management excellence.

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



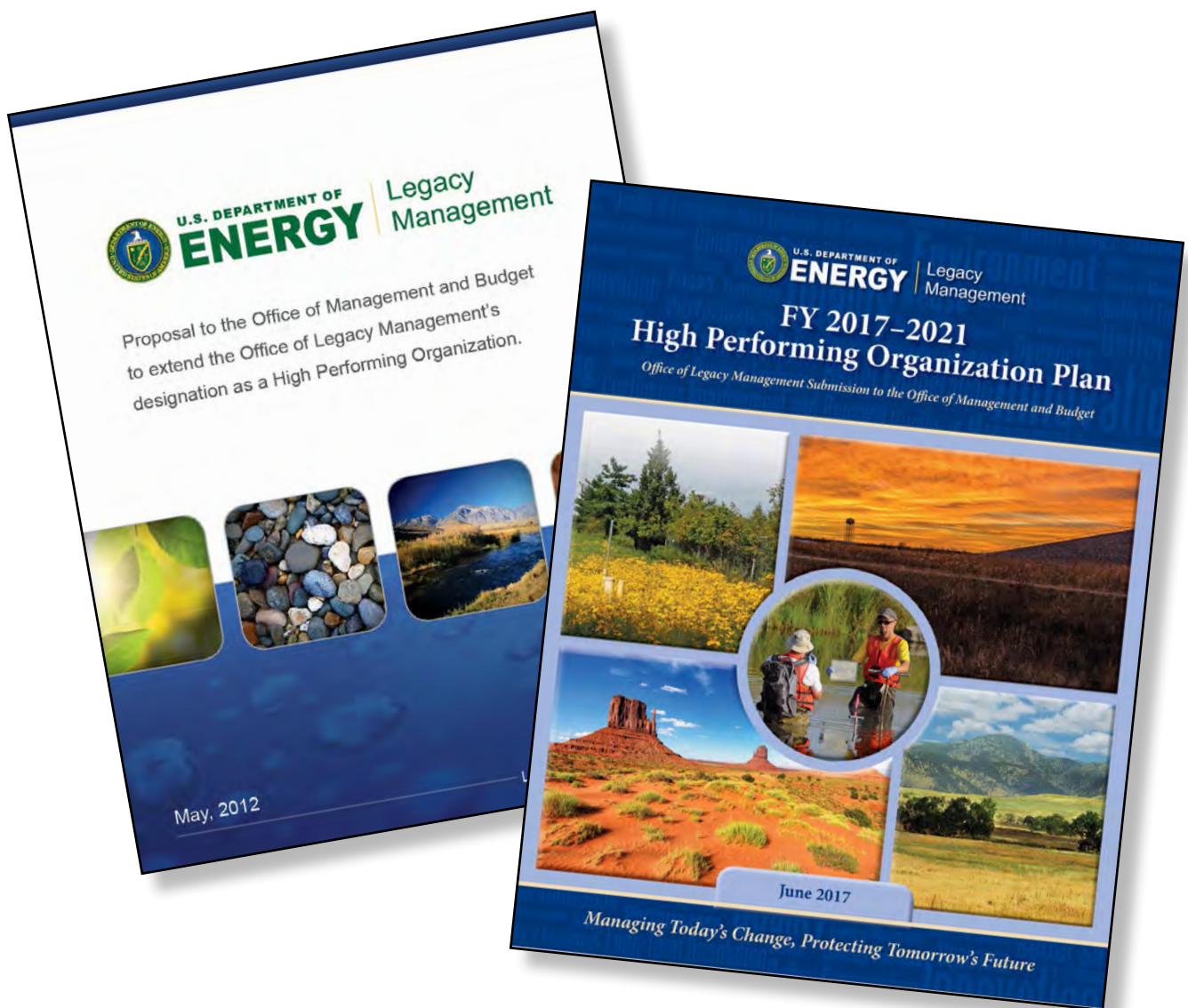
Goal 6. Engage the public, governments, and interested parties.

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

LM's Goals and Objectives.

Section 5. LM'S FY 2017–2021 HPO Plan

For the new HPO plan, LM is proposing goals, milestones, and other metrics similar in format to those of the May 2012 HPO plan. Goals are in two broad categories: 1) Program Performance and 2) Management Excellence. For each goal, the LM *2016–2025 Strategic Plan* goal number to which it most closely pertains is listed. All of the Management Excellence goals are for Goal 5, Sustain Management Excellence. In contrast, there are program performance goals for each of the other five goals. In both categories are goals that LM has had previously, but continue to be important going forward (e.g., “To maintain a safety record better than the DOE average”). Among Program Performance goals also included in the 2012 proposal was reducing the cost of LTS&M by 2 percent or more per year normalized to the number of sites. Also noted is either the frequency when the activity will occur or be measured, or the fiscal year when an activity will be completed or a significant milestone will be reached (see [Table 6](#) and [Table 7](#) on pages 32 and 34).



Section 5. LM'S FY 2017–2021 HPO Plan (continued)

Table 6. Proposed Program Performance Goals

Proposed Program Performance Goals	Goal	Target
Reduce the cost of long-term surveillance and maintenance by 2 percent per year against an approved baseline.	1	Annually
Conduct transition activities at 16 sites, with the goal of increasing LM site responsibility from 91 to 107.	1	FY 2021
Contingent on Office of Management and Budget approval and congressional appropriations, accept transfer of Title X Program responsibility and make its first reimbursements to eligible licensees.	1	FY 2018
Complete verification and validation of 50 percent of the defense-related uranium mines in the DRUM database.	1	FY 2021
Host LM's third national workshop on long-term surveillance and maintenance.	1	FY 2018
Migrate historical data for former EM closure sites to EQuIS™.	2	FY 2017
Respond to stakeholder requests; establish a tracking system to record fulfillment of requests and the length of time required to respond.	2	FY 2017
Upload all records for FUSRAP completed sites into the FUSRAP Document Information System.	2	FY 2018
Assess and complete necessary hardware upgrades to maintain priority data systems and the LSN as part of preserving Yucca Mountain Project records.	2	FY 2021
Reduce Information Technology operations and maintenance cost per user in FY 2021 by 10 percent, based on the FY 2017 baseline.	2	FY 2021
Reduce the records management cost per site/collection managed in FY 2021 by 10 percent, based on the FY 2017 baseline.	2	FY 2021
Conduct a cost-benefit analysis on the efficiencies and effectiveness of LM operating and maintaining its own National Archives and Records Administration–certified records-storage facility by FY 2021.	2	FY 2021

Section 5. LM'S FY 2017–2021 HPO Plan (continued)

Table 6. Proposed Program Performance Goals (continued)

Proposed Program Performance Goals	Goal	Target
Annuitize LM-funded contractor workforce pension plans.	3	FY 2020
Audit medical reimbursements for improper payments on a rotating basis.	3	FY 2021
Ascertain that licensees are in full compliance with Colorado Division of Reclamation Mining and Safety regulations for Uranium Leasing Program tracts.	4	FY 2020
Assess the resilience of site remedies to extreme weather and other natural events.	4	FY 2021
Use best management practices to increase the acreage at LM sites identified as having potential to support the objectives of the "National Strategy to Promote the Health of Honey Bees and Other Pollinators."	4	FY 2021
Implement renewable- or alternative-energy generation as types of reuse at one or more LM sites.	4	FY 2021
Complete full or partial disposal of three LM sites.	4	FY 2021
Increase outreach to the public and other interested parties by opening updated visitors centers, historic buildings, and other new user facilities at four sites.	6	FY 2019
Complete 75 percent of the capital asset work necessary to enhance public access to the priority facilities for the Manhattan Project National Historical Park.	6	FY 2021
Provide access to the LM <i>Program Update</i> via social media.	6	FY 2017
Implement near-real-time feedback on stakeholder outreach activities.	6	FY 2018
Develop a Knowledge Management Plan for LM.	6	FY 2018
Survey stakeholder satisfaction with LM performance and report results to stakeholders.	6	FY 2020

Section 5. LM'S FY 2017–2021 HPO Plan (continued)

Table 7. Proposed Management Excellence Goals

Management Excellence Goals (LM Goal 5)	Target
Achieve EMS responsibilities and related EOS (normalized to the number of legacy sites).	Annually
Be a leader in sustainability among DOE offices.	Annually
Continue to publish the PCAR on the LM internet.	Quarterly
Conduct independent evaluations of key programs, projects, or technical issues.	At Least Annually
Augment LM federal staff through the use of intra-agency and interagency agreements.	Annually
Maintain a safety record better than the DOE average.	Annually
Procure a new performance-based incentive support services contract to support the LM mission.	FY 2021
<ul style="list-style-type: none"> • Achieve a balanced organization, with respect to grade levels and structure, by having an average GS-13 grade. • Increase the number of entry-level, career-ladder positions. • Increase the number of GS-13 positions, providing experience and eligibility for GS-14/15 Team Lead positions. 	Annually
Score 5 percent or more than the DOE average on the annual FEVS.	Annually
Maintain the organization as one of the most diverse and inclusive in DOE.	Annually
Complete implementation of over 90 percent of the actions identified in the LM 2017–2021 HCMP.	Annually

Appendix A. History of LM as a High Performing Organization

DOE established LM in December 2003 with a staffing level of 81 full-time employees and included parts of what had been the missions of EM and the DOE Office of Worker and Community Transition. At its inception, LM staff was based in six locations: Germantown, Maryland; Grand Junction, Colorado; Morgantown, West Virginia; Pinellas, Florida; Pittsburgh, Pennsylvania; and Washington, DC. EM employees from the National Energy Technology Laboratory in Pittsburgh, along with personnel from the Office of Long-Term Stewardship in Washington, DC, and the office in Grand Junction joined LM. From the beginning, LM's work focused primarily on activities associated with Manhattan Project and Cold War era nuclear legacy sites no longer needed for DOE missions. The initial staffing included some employees at higher grades than necessary, given their responsibilities. In addition, collectively the organization did not have the skill mix necessary to accomplish all facets of its new mission.

To address this situation, LM began a critical review in FY 2005 of mission, functions, and human capital assets. The review included using the tools and techniques in OMB Circular A-76, *Performance of Commercial Activities*, and HPO principles contained in the Government Accountability Office Commercial Activities Panel report. Part of that approach included applying the HPO principles:

- Clearly defining mission and goals
- Understanding the customer base
- Establishing a leadership system and core values

In 2007, LM was designated an HPO by OMB. This significant milestone was achieved by a concerted, organization-wide effort to reduce the number of federal staff, improve operational efficiency, and locate employees closer to LM customers. As part of its HPO designation, LM underwent a 28 percent reduction in federal staff (from 81 to 58), while simultaneously increasing program scope. In 2012, LM completed its five-year contract as an HPO and submitted a new HPO proposal to OMB for an additional five years.



Appendix A. History of LM as a High Performing Organization (continued)

Key Milestones Associated with LM's HPO Designation



Conducted a self-assessment using tools and techniques contained in OMB Circular A-76

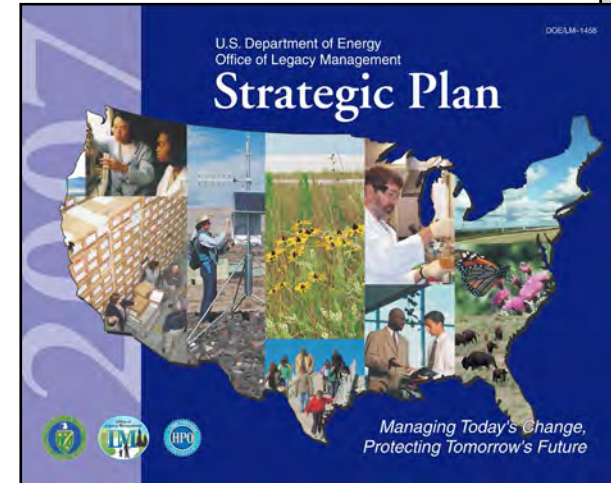
Reorganized into the Office of Business Operations (LM-10) and the Office of Site Operations (LM-20)

Closed the federal office in Pinellas, Florida

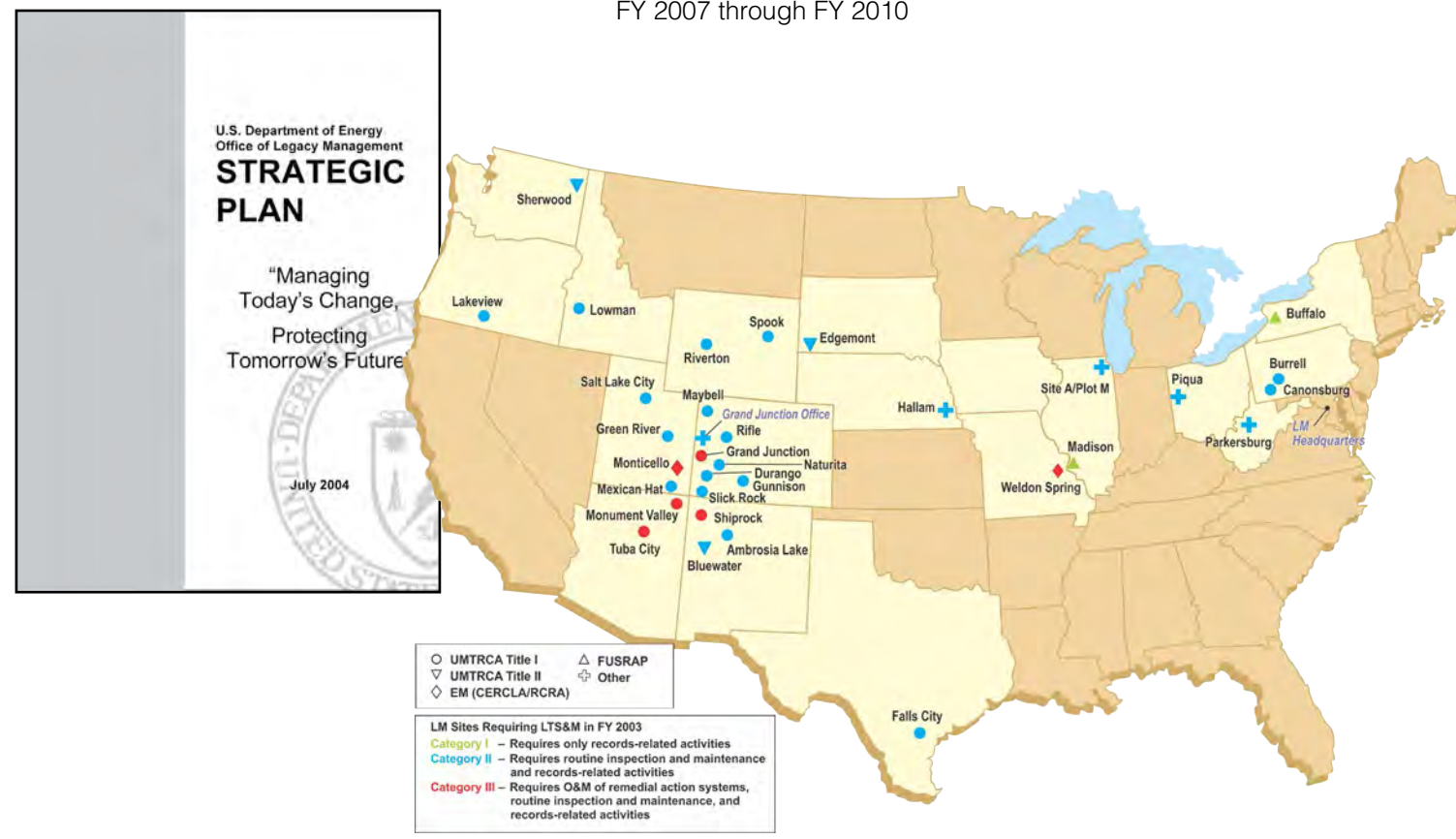
Completed efforts to downsize to 58 federal staff members

Received designation from OMB as the second HPO in the federal government on February 13, 2007

Completed LM's second Strategic Plan



FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
DOE established LM with 81 federal staff in six locations in December 2003								
Completed LM's first Strategic Plan								
		Closed the Germantown, Maryland, office and relocated remaining staff and work assignments to Washington, DC, and Morgantown, West Virginia						
		Developed LM's HCMP for FY 2007 through FY 2010						
			Closed the Pittsburgh, Pennsylvania, office and moved remaining staff and work assignments to Morgantown, West Virginia					
					Transferred human resources services from the National Energy Technology Laboratory to Headquarters Human Resources			
							Consolidated the Fernald Preserve and Mound offices in Ohio	
							Issued LM's third Strategic Plan	
							Issued LM's 2011-2015 HCMP	Transmitted LM's second five-year HPO proposal to OMB



Appendix B. LM Anticipates Having Responsibility for 107 Sites in FY 2021



Appendix C. Acronym List

AEC	U.S. Atomic Energy Commission	MAPR	Manhattan Project National Historical Park
AIM	Archives and Information Management	MDW	Many Devils Wash
AS&T	Applied Studies and Technology	MEBA	Mercury Export Ban Act
BLM	U.S. Bureau of Land Management	MOA	Memorandum of Agreement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NDAAs	National Defense Authorization Act
CRO	Community Reuse Organization	NEPA	National Environmental Policy Act
CT	Community Transition	NNSA	National Nuclear Security Administration
DOE or Department	U.S. Department of Energy	NPS	National Park Service
DRUM	defense-related uranium mine	NRC	U.S. Nuclear Regulatory Commission
EJ	environmental justice	NVOs	Nevada Offsites
EM	Office of Environmental Management	OMB	Office of Management and Budget
EO	Executive Order	OPM	Office of Personnel Management
EQUIS	Environmental Quality Information System	PCAR	<i>Post Competition Accountability Report</i>
FEVS	Federal Employee Viewpoint Survey	PD	program direction
FTE	full-time-equivalent employee	PIE	Public and Intergovernmental Engagement
FUSRAP	Formerly Utilized Sites Remedial Action Program	QA	Quality Assurance
FY	fiscal year	RCRA	Resource Conservation and Recovery Act
GEMS	Geospatial Environmental Mapping System	S&H	Safety and Health
HCMP	<i>Human Capital Management Plan</i>	SLAPS	St. Louis Airport Site
HPO	High Performing Organization	SMG	<i>Site Management Guide</i>
HR	Human Resource Management	ULP	Uranium Leasing Program
IAEA	International Atomic Energy Association	UMT	Uranium Mine Team
ICs	institutional controls	UMTRCA	Uranium Mill Tailings Radiation Control Act
LM or Office	Office of Legacy Management	USACE	U.S. Army Corps of Engineers
LM-20	Office of Site Operations	USFS	U.S. Forest Service
LSN	Licensing Support Network	USFWS	U.S. Fish and Wildlife Service
LTS&M	long-term surveillance and maintenance	V&V	verify and validate
LTSP	Long-Term Surveillance Plan		



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

FY 2017–FY 2021 High Performing Organization Plan

*Office of Legacy Management Submission
to the Office of Management and Budget*

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Managing Today's Change, Protecting Tomorrow's Future