

Office of Legacy Management
The First Decade
2003-2013

*Learning from the Past,
Envisioning the Future*



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

*Cover photo, top to bottom:
Monument Valley, Arizona;
Rocky Flats, Colorado, Site*

Office of Legacy Management

The First Decade

2003–2013

February 2014



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

<http://energy.gov/lm>

Letter from the Director

The U.S. Department of Energy (DOE or Department) established the Office of Legacy Management (LM) on December 15, 2003, to provide a long-term, sustainable solution to the legacy of the Cold War. LM is responsible for managing activities at sites where DOE's mission and active environmental cleanup has been completed. This document tells the story of LM's first decade of operation, including many of the key milestones, deliverables, and accomplishments. It is intended to inform the reader about the history of LM, from its inception through the end of December 2013.



The First Decade, 2003–2013 is organized by LM's five goals:

Goal 1: Protect human health and the environment

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

Goal 3: Meet commitments to the contractor workforce

Goal 4: Optimize the use of land and assets

Goal 5: Sustain management excellence

Each goal begins with a narrative that highlights LM's responsibilities, significant actions, and the major forces or trends that impacted our work. Following each narrative are pages of goal-specific actions, events, milestones, and achievements that we believe were most significant to LM. Where possible, we have included an analysis of data related to a specific goal, such as the number of groundwater wells and samples for Goal 1, the volume of stored records for Goal 2, and the number of former contractor workers who received benefits for Goal 3.

It is our hope that by reading this document you will better understand the history of LM, our role within the DOE, and the impacts that were made over the last decade.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. W. Geiser", written over a light blue rectangular background.

David W. Geiser

Director, Office of Legacy Management

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Legacy Management Business Center, Morgantown, West Virginia

Mission, Vision, and Operating Principles

Mission Statement

The mission of the U.S. Department of Energy Office of Legacy Management is to fulfill the Department's post-closure responsibilities and ensure the future protection of human health and the environment.

Vision

The Department's legacy workforce, communities, and the environment are well-protected and served.

- Consistent and effective long-term surveillance and maintenance (LTS&M) protects people and the environment.
- The public has easy access to relevant records and information.
- Because we work together, stakeholders, tribal nations, and state and local governments trust us.
- The Department's former contractor workforce receive mandated benefits on time.
- People are treated fairly and have meaningful involvement.

Operating Principles

Six principles guide the implementation of LM's strategic plan:

1. We operate safely with protection of human health (worker and public) and the environment as a priority.
2. We are serious about our responsibility as a federal trustee, to safeguard land and resources.
3. We recognize that legacy activities are local. We are flexible in tailoring site-specific solutions to short- and long-term issues facing our sites and the affected communities.
4. Stakeholder involvement is integral to our operations; we can succeed only by doing things with our communities and tribal nations, not to them.
5. We operate in an open and transparent manner.
6. We are fiscally conservative in managing the taxpayer's money.



Sherwood, Washington,
Disposal Site

Summary of Goals and Objectives

Goal 1. Protect Human Health and the Environment

Objectives

1. Comply with environmental laws and regulations.
2. Reduce health risks and long-term surveillance and maintenance costs.
3. Partner with other federal programs to make environmental remedies better and last longer.
4. Oversee DOE implementation of Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

Goal 2. Preserve, Protect, and Share Records and Information

Objectives

1. Meet public expectations for outreach activities.
2. Protect records and make them accessible.
3. Protect and ensure access to information.

Goal 3. Meet Commitments to the Contractor Workforce

Objectives

1. Safeguard contractor pension plans.
2. Fund contractor health and life insurance.

Goal 4. Optimize the Use of Land and Assets

Objectives

1. Optimize public use of federal lands and properties.
2. Transfer excess government property.
3. Improve domestic uranium mining and milling operations.

Goal 5. Sustain Management Excellence

Objectives

1. Renew LM's designation as a high performing organization.
2. Implement LM's *Human Capital Management Plan*.
3. Operate in a sustainable manner and reduce LM's carbon footprint.



GOAL 1

Protect Human Health and the Environment

In the 1990s there was a growing realization that even after cleanup of Cold War legacy sites was complete there would still be some residual risk. As part of the cleanup effort, DOE had installed a variety of environmental remedies (e.g., disposal cells, groundwater treatment systems, and institutional controls), some of which would require LTS&M. LM was established to provide a nationwide, institutional capability for long-term management of sites that were closed and no longer supported a DOE mission.

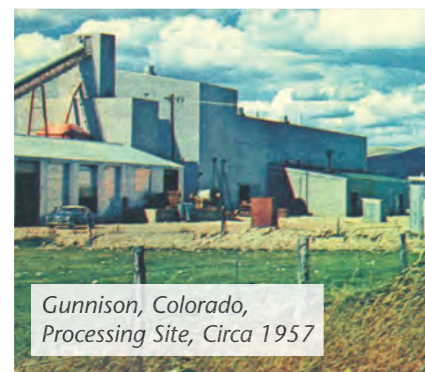
By 2003, DOE had already completed cleanup at two dozen former uranium mills where large (millions of cubic yards) tailings piles had been created during their operation in the 1950s and 1960s. Care of these former mill sites was the responsibility of the DOE office in Grand Junction, Colorado. In addition, DOE had completed cleanup at a number of sites under the Formerly Utilized Sites Remedial Action Program (FUSRAP). These sites were associated with the Manhattan Project and the early years of the U.S. Atomic Energy Commission (predecessor agency to DOE). FUSRAP sites tended to be in metropolitan areas and less contaminated than former mill sites, thus cleanup generally led to continued industrial or commercial use of the sites. As a result, LM's responsibility for completed FUSRAP sites was limited to recordkeeping. LM became responsible for managing these sites and others during its first year of operation.

By the time LM was established, DOE had been working on long-term stewardship issues for several years. The DOE Office of Environmental Management (EM) and LM would spend the next 10 years implementing policies as EM completed the cleanup and closure of additional sites. This partnership supported EM's process to select and install remedies and allowed LM time to prepare for site transitions. Sites that were closed after LM was established tended to have more complex environmental challenges. Increased initial risks and denser populations surrounding the sites created more potential risk for the public and required more engagement in the cleanup decisions. The major EM closure sites were significantly more expensive to clean up and the resulting conditions usually required ongoing operation of active groundwater treatment systems, as well as inspection and maintenance of disposal cells that had been built to encapsulate waste.

Over the last 10 years LM's site responsibilities have grown from 33 to 90. A few of the sites acquired were the Weldon Spring, Missouri, Site; the Rocky Flats, Colorado, Site; the Fernald



Former Monticello, Utah, Mill Site



Gunnison, Colorado, Processing Site, Circa 1957



Riverton, Wyoming, Processing Site



Burrell, Pennsylvania, Disposal Site

Preserve and Mound sites in Ohio; and the Pinellas County, Florida, Site. The Nevada Offsites, a collection of nine sites in five states where underground nuclear tests were conducted, were also added to LM's site responsibilities. The addition of these sites required LM to transition from a program with expertise centered on former uranium mill sites, to a nationwide capability that included sites cleaned up under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Resource Conservation and Recovery Act; and state Voluntary Cleanup Agreements.

As LM's responsibilities grew, so did its reputation for safe and cost-effective management of environmental remedies at closed sites. This reputation has been secured through LM's close, working relationships with regulators, local governments, tribal nations, and stakeholders who are interested in post-closure operations. LM has lent its expertise to support benchmarking efforts by government officials from Germany, Japan, and Canada, and has been recognized by the International Atomic Energy Agency.



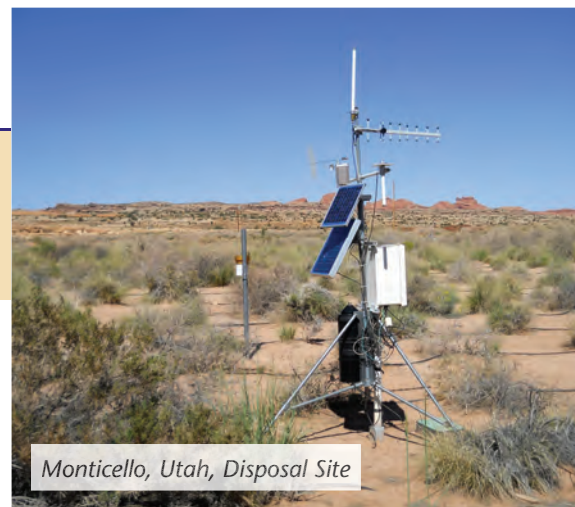
Central Nevada Test Area
(Nevada Offsite)



Pinellas County, Florida, Site



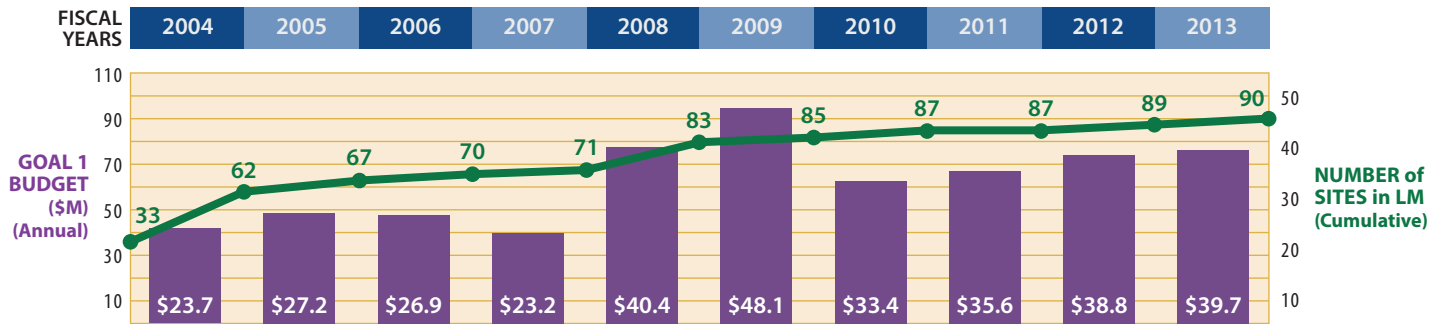
Hamilton, Ohio, Site (FUSRAP site)



Monticello, Utah, Disposal Site

KEY MILESTONES

- FY 2004** Accepted transfer of 29 postclosure sites, including Maxey Flats, Kentucky, Disposal Site; Pinellas County, Florida, Site; and 27 FUSRAP sites.
- FY 2005** Finalized *Long-Term Surveillance and Maintenance Plan for the U.S. Department of Energy Weldon Spring, Missouri, Site* and *Explanation of Significant Differences for Institutional Controls*.
- FY 2005** Expanded groundwater extraction systems to improve productivity at Shiprock, New Mexico, Disposal Site and Tuba City, Arizona, Disposal Site.
- FY 2005** Performed demonstration at Monument Valley, Arizona, Processing Site on the effectiveness of phytoremediation of groundwater.
- FY 2006** Implemented System Operation and Analysis at Remote Sites and installed data loggers at several remote sites to conduct groundwater monitoring and to record results electronically.
- FY 2006** Completed removal of 18,000 pounds of contaminants at Pinellas County, Florida, Site using an electro-thermal dynamic stripping process.
- FY 2006** Accepted management and operational responsibility for Rocky Flats, Colorado, Site.



Grand Junction, Colorado, Disposal Site

FY 2007 Initiated evaluation study for an inexpensive approach to enhancing hydrological performance of final covers for disposal cells at Grand Junction, Colorado, Disposal Site.

FY 2008 Accepted site management responsibility for 12 additional sites including Fernald, Ohio, Site; and eight* Nevada Offsites.

FY 2008 Completed vegetation of 12 drilling-mud disposal sites on Amchitka, Alaska, Site to improve cell performance and durability.

FY 2008 Installed a concentrated solar thermal system to reduce energy costs by 35 percent at Tuba City, Arizona, Site.



Pinellas County, Florida, Site

FY 2009 Completed first dam breach project at Rocky Flats, Colorado, Site to reduce LTS&M costs and help preserve wetlands and habitat.

FY 2009 Removed over 2,500 cubic yards of contaminated soil at Pinellas County, Florida, Site.

FY 2009 Negotiated and finalized Monticello, Utah, Processing Site's *Explanation of Significant Difference* addressing surface water and groundwater.

FY 2009 Completed institutional control instatement addressing soils supplemental standards and groundwater protection measures at former Riverton, Wyoming, Processing Site.



2010 LTS&M Conference

FY 2010 Completed CERCLA Record of Decision for Laboratory for Energy-Related Health Research, California, Site.

FY 2010 Sponsored first LTS&M Conference in Grand Junction, Colorado.

FY 2010 Finalized Gasbuggy, New Mexico, Site Interagency Agreement between U.S. Forest Service, Bureau of Land Management, and DOE regarding collaboration/commitment to manage protectiveness while working effectively with energy developers and Jicarilla Apache Nation.

*There are nine total Nevada Offsites; responsibility for the Chariot, Alaska, Site transferred in FY 2005.

FY 2011 Conducted long-term monitoring activities and onsite inspections of Amchitka, Alaska, Site.

FY 2011 Completed Weldon Spring, Missouri, Site culvert removal project.

FY 2012 Accepted site management responsibility for Mound, Ohio, Site.

FY 2012 Co-hosted an international workshop on long-term management of uranium legacy sites with International Atomic Energy Agency.

FY 2012 Finalized agreement with Northern Arapaho Tribe to ensure safe drinking water at Riverton, Wyoming, Disposal Site.

FY 2012 Completed first phase of second dam breach project (two dams) at Rocky Flats, Colorado, Site.

FY 2012 Performed analytical assessment and completion of biomonitoring program at Monticello, Utah, Processing Site, Operable Unit III.

FY 2013 Completed CERCLA Natural Resource Damage process at Rocky Flats, Colorado, Site.

FY 2013 Finalized Wind River Environmental Quality Commission agreement to ensure Arapaho and Shoshone Joint Council works effectively with DOE.

FY 2013 Expanded solar power for treating groundwater at Rocky Flats, Colorado, Site.

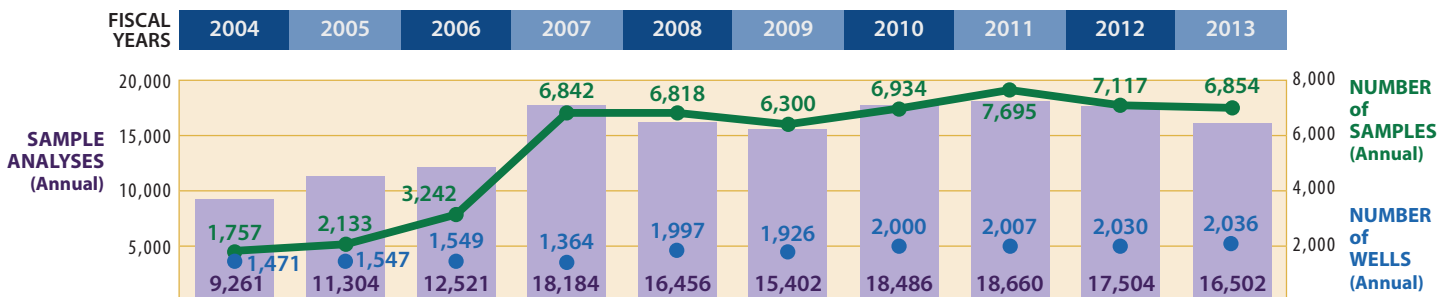
FY 2013 Received U.S. Nuclear Regulatory Commission approval for groundwater compliance action plan at Lakeview, Oregon, Site.



International Atomic Energy Agency Workshop Activities



Lakeview, Oregon, Site



The number of sampling activities more than quadrupled and the number of wells nearly doubled.

GOAL 2



LMBC Warehouse



LM Data Center



LMBC Warehouse



LMBC Warehouse

Preserve, Protect, and Share Records and Information

At LM's inception, former Cold War nuclear site records were distributed across the country, in both federal records centers and at DOE sites. LM determined that managing the records in a single facility would be more cost effective and provide faster and more complete responses to requests. After several years of design work, LM established its Business Center (LMBC) in Morgantown, West Virginia, in 2009. The LMBC includes a National Archives and Records Administration (NARA)-certified records storage facility and a consolidated data center. The transfer of site records to the LMBC began in 2010. Currently, LM responds to approximately 1,500 records requests per year. Many of the requests support efforts to compensate former workers under the Energy Employees Occupational Illness Compensation Policy Act. To help preserve these records LM recently completed the conversion of over 400,000 deteriorating x-ray films to high-resolution, digital images. In 2011, LM accepted transfer of more than 10,000 cubic feet of records associated with the Yucca Mountain Project in Nevada.

A significant challenge was realized when LM received hundreds of information systems from major EM closure sites. The systems were often unique and contained large volumes of electronic data that were needed for long-term site management. LM made great strides in reducing the number of systems and consolidating the information within the enterprise architecture. Preserving the data and making it accessible to regulators and stakeholders was a major effort during LM's first decade of operation.

In addition to hardcopy records, the LMBC provides centralized storage of electronic information. The data center allows LM to maximize the effectiveness of its information technology (IT) operations, reduce costs, and provide for a more reliable IT infrastructure. In 2011, LM expanded the data center to accept information that was transferred to LM custody with the closure of the Yucca Mountain Project. LM has an onsite emergency diesel generator (transferred from the Fernald, Ohio, Site at closure) and the data center has an advanced fire suppression system. LM continues to upgrade its IT capability with an emphasis on improved cyber security and updating LTS&M data collection and analysis tools. The latter technologies will enhance the capabilities of earlier LM systems such as the Geospatial Environmental Mapping System and the Site Environmental Evaluation for Projects applications.

LM's early approach to stakeholder involvement focused primarily at the local level. Site managers worked with regulators, local governments, tribal nations, and the public on a site-by-site basis.

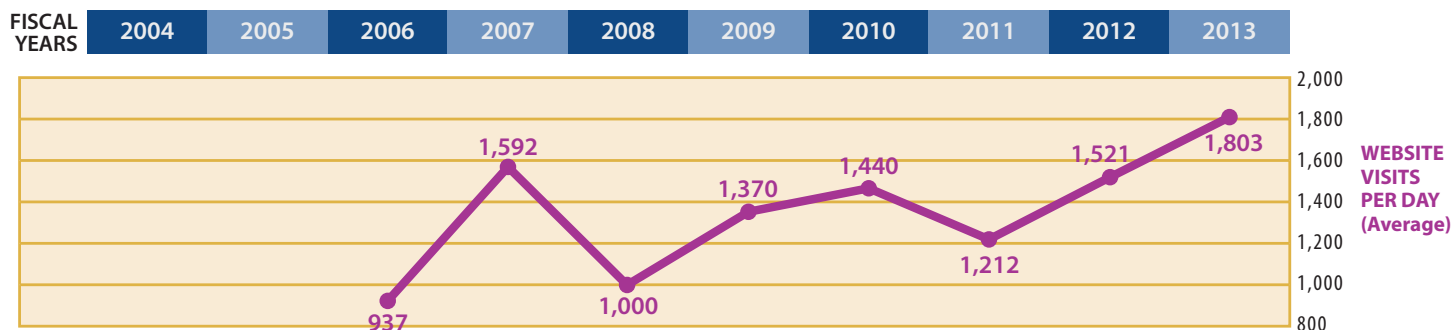
As LM received additional sites from areas that were more densely populated, had larger numbers of workers, and were more expensive and controversial to clean up, we found a need to enhance our outreach efforts. LM expanded outreach efforts with each site acquisition, often adopting the practices that EM had put in place during the cleanup phase. The large number of sites also required a more national approach, so LM created a National Stakeholder Database in 2004 to more widely disseminate LM announcements and information with stakeholder groups.

In 2013 LM completed a baseline stakeholder satisfaction survey that was used to identify areas for improvement in public meetings, web design, and access to records and information. Currently, LM communicates with over 6,000 stakeholders through quarterly *Program Update* newsletters and the LM website, which receives approximately 1,800 hits per day. LM hosts numerous public meetings and workshops and also operates two visitors centers that average a combined 35,000 visitors each year.



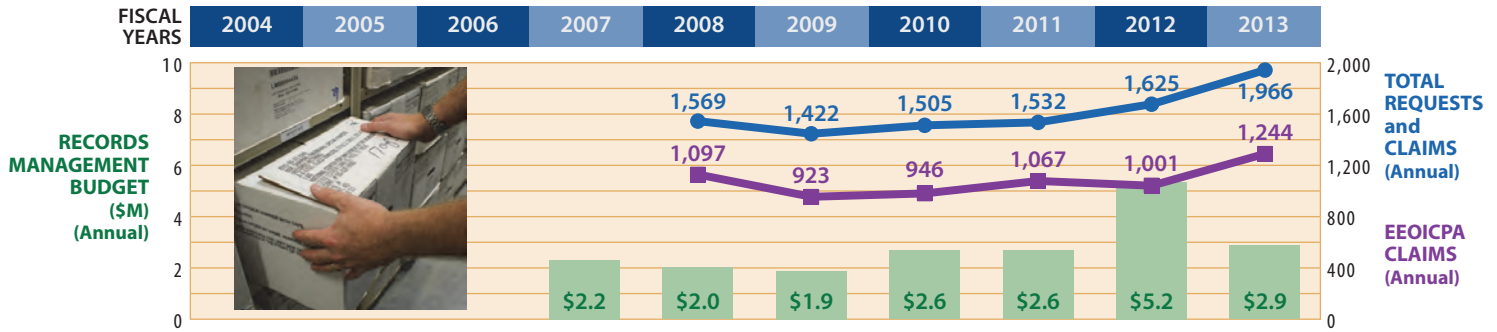
KEY MILESTONES

FY 2004	Developed National Stakeholder Database to track and distribute LM stakeholder information.
FY 2004	Published first quarterly <i>Program Update</i> newsletter announcing creation of LM.
FY 2005	Completed conceptual design and value engineering review for LM records management facility.
FY 2005	Developed life-cycle cost analysis of various alternatives for accomplishing LM's records management mission.



LM's database includes more than 6,000 registered stakeholders. On average, there are over 1,800 visits to the LM website per day.

More than 10,000 records requests have been completed and LM's record holdings have reached nearly 110,000 cubic feet.



Document Request Response Preparation

FY 2006 Assumed records responsibility for Rocky Flats, Colorado; and Mound, Ohio, sites.

FY 2006 Published LM's plan to connect performance targets to budget structure and decision-making process.

FY 2007 Assumed records responsibility for Fernald, Ohio, Site.

FY 2007 Implemented requests-tracking database to capture records requests processed.

FY 2007 Designed and produced first national stakeholder's exhibit to help inform stakeholders of LM's mission commitments.

FY 2007 Processed more than 3,500 requests for information associated with Energy Employees Occupational Illness Compensation Policy Act, Freedom of Information Act, Privacy Act, and other inquiries.

FY 2008 Completed comprehensive analysis of interaction with LM stakeholders to determine effective public outreach strategies.

FY 2008 Created web-based, e-catalog library database system to allow users access to both traditional and nontraditional library materials.

FY 2008 Established LM Consolidated Data Center in Morgantown, West Virginia.

FY 2009 Won "DOE Information Technology Group/Team Award" for successful migration of LM services to a consolidated data center.

FY 2010 Completed transfer of more than 50,000 cubic feet of records from federal records centers across U.S. to LMBC.

FY 2010 Opened the LMBC, a NARA-certified facility with 150,000 cubic feet of records storage capacity.

FY 2010 Received first shipment of records (1,037 boxes) from San Francisco Federal Records Center in San Bruno, California, for the Laboratory for Energy-Related Health Research, California, Site.



LMBC Warehouse



FY 2011 Assumed responsibility for DOE Office of Civilian Radioactive Waste Management records and information from Yucca Mountain Project, Nevada.

FY 2011 Completed a successful, formal NARA inspection of LMBC.

FY 2011 LMBC received West Virginia State recycling award for waste minimization.

FY 2011 Consolidated DOE Office of Civilian Radioactive Waste Management data centers into existing LM locations.

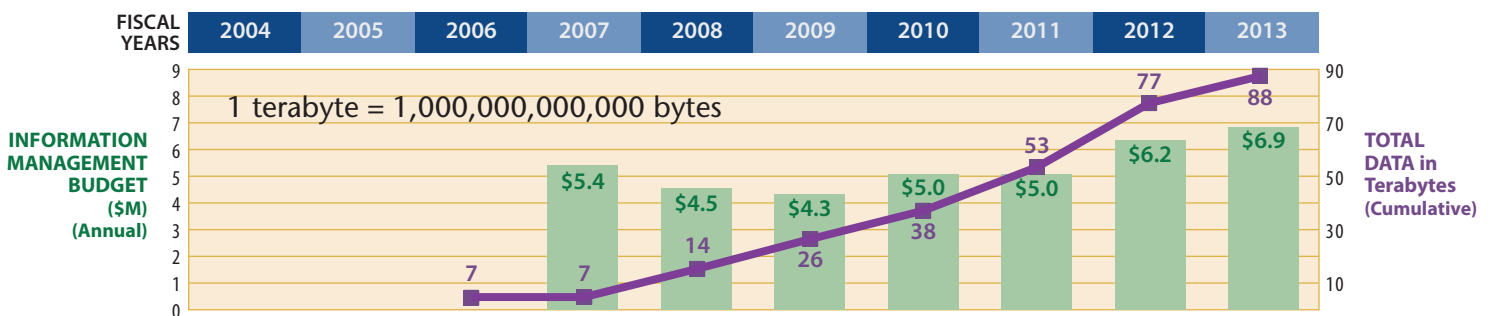
FY 2011 Executed LMBC disaster recovery exercise with community responders.

FY 2012 Migrated Yucca Records (Nevada) Information System to a sustainable LM platform.

FY 2012 Completed LM records digitization of more than 400,000 x-ray records to ensure long-term preservation.

FY 2013 Began storing physical records from external DOE entities at LMBC.

FY 2013 Improved LMBC data center fire suppression system.



Information Management is responsible for more than 218 terabytes of electronic information (includes 130 terabytes of Yucca Mountain data).

GOAL 3

Meet Commitments to the Contractor Workforce

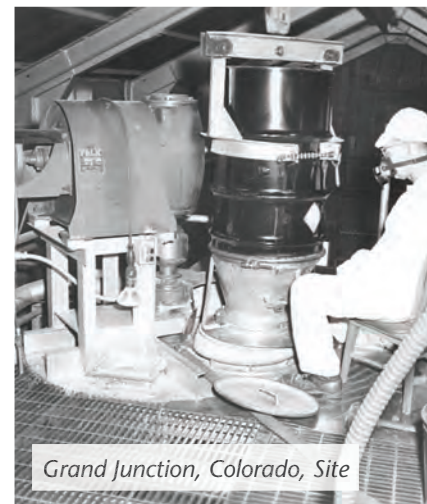
Contractor pensions and post-retirement benefits

LM's primary Goal 3 responsibility is to meet legal and contractual commitments to former DOE contractor workers. These commitments include ensuring retirees receive the benefits associated with their pension plans as well as their health and life insurance policies. This responsibility is unique in the federal government because no other federal agency continues to fund retirement benefits for former contractor workers after the contract work is finished.

In its first year of operation LM assumed responsibility for the benefits of workers who were employed at facilities that contributed to the production of nuclear defense materials. Falling under LM responsibility were former workers of the Pinellas Plant in Florida; the Grand Junction, Colorado, Site; and workers who had retired from the Portsmouth, Ohio, Site; and the Paducah, Kentucky, Site. Since then LM has received responsibility for those once employed at sites in Rocky Flats, Colorado; Yucca Mountain, Nevada; and Fernald and Mound, in Ohio. Today LM is responsible for benefits associated with approximately 11,000 former workers or their beneficiaries.

LM has worked closely with an independent actuarial firm, the DOE chief financial officer, the U.S. Office of Management and Budget, (OMB) and the responsible site contractors to ensure the continuity of benefits for former workers at closure sites. Over the last decade, funding was provided to ensure that pension plans were adequately funded in accordance with the requirements of the Employee Retirement Income Security Act of 1974, and subsequent changes to pension law. DOE has concurred on contractor requests to offer former employees lump-sum buyouts of their pension plans, and more recently, the opportunity to convert the plans to insurance company annuities. These actions have reduced both administrative costs and the risks associated with the federal budget process on retiree benefits. At the end of 2013 all but one of the closure site pension plans were fully funded.

With the transfer of the Rocky Flats and Fernald sites in 2008, the majority of LM's budget request has been to support the post-retirement benefits (health and life insurance) of former workers. There are a number of factors that have affected the amount of funding necessary, which include the rising cost of health care, the aging retiree population (coverage under



Grand Junction, Colorado, Site



Fernald, Ohio, Plant



Fernald, Ohio, Plant

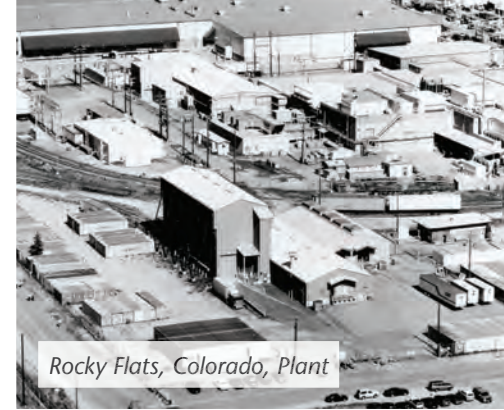


Mound, Ohio, Plant

Medicare), changes in health insurance laws and regulations, and mortality. LM has worked with an independent actuarial firm to analyze these effects, create 5-year projections, and request a budget that meets our commitments. We have also supported efforts by contractors to reduce costs through eligibility reviews and the use of benefit plans that enable a health reimbursement account or other approaches.

Work force restructuring

When LM was established, the office assumed responsibility for work performed by the Office of Worker and Community Transition (WT). WT was established in 1994 to support DOE's efforts to address changes in mission and workforce that were triggered by the end of the Cold War. This work included actions associated with contractor workforce restructuring, labor relations, and labor standards. The WT function had significant funding in the 1990s, which was diminishing as LM's responsibilities began. LM managed to downsize remaining efforts, and through a series of actions, transferred functions to other areas of DOE. In 2013, the U.S. Congress eliminated the requirement for an annual work force restructuring report and LM was able to shut down operation of the Work Force Information System and the Jobs Opportunity Bulletin Board. These actions ended LM's responsibilities for workforce-related functions that were inherited from WT.



Rocky Flats, Colorado, Plant



Pinellas County, Florida, Site



Pinellas Plant, Florida

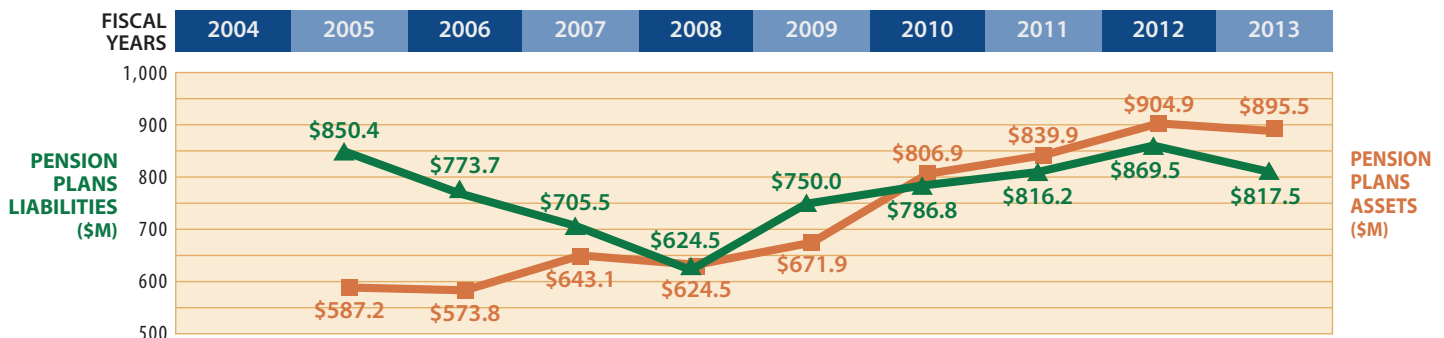
KEY MILESTONES

FY 2004 Administered selected post-retirement and post-closure benefits for former contractor personnel at the Pinellas Plant in Florida.

FY 2004 Administered certain pre-existing liabilities and long-term contractor liabilities at former gaseous diffusion facilities at Paducah, Kentucky; and Portsmouth, Ohio.

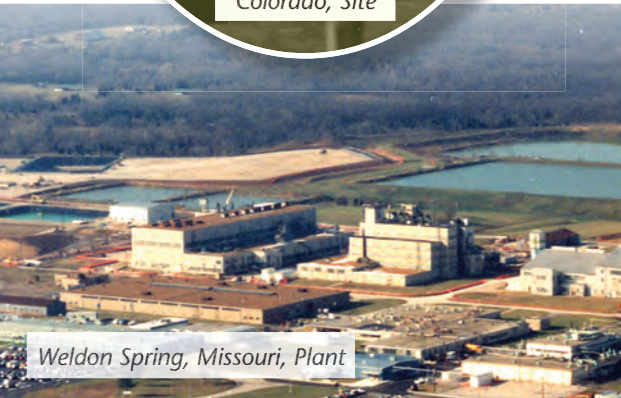
FY 2005 Hosted 2004 Stakeholders Conference on Worker Transition and Legacy Benefits in Las Vegas, Nevada.

FY 2005 Hired certified actuary.





Grand Junction,
Colorado, Site



Weldon Spring, Missouri, Plant



Weldon Spring, Missouri, Site

FY 2006 Drafted policy that explicitly allowed contractors to budget for pension plan termination several years prior to a site closure.

FY 2007 Completed comprehensive analysis of contractor benefits at LM's current sites and EM's closure sites.

FY 2007 Supported work force restructuring activities at eight DOE sites.

FY 2007 Supported timely resolution of labor issues associated with security guards at Pantex Plant in Texas.

FY 2008 Assisted many DOE sites in developing general workforce plans, to provide a road map for the contractor implementation of long-term work force restructuring.

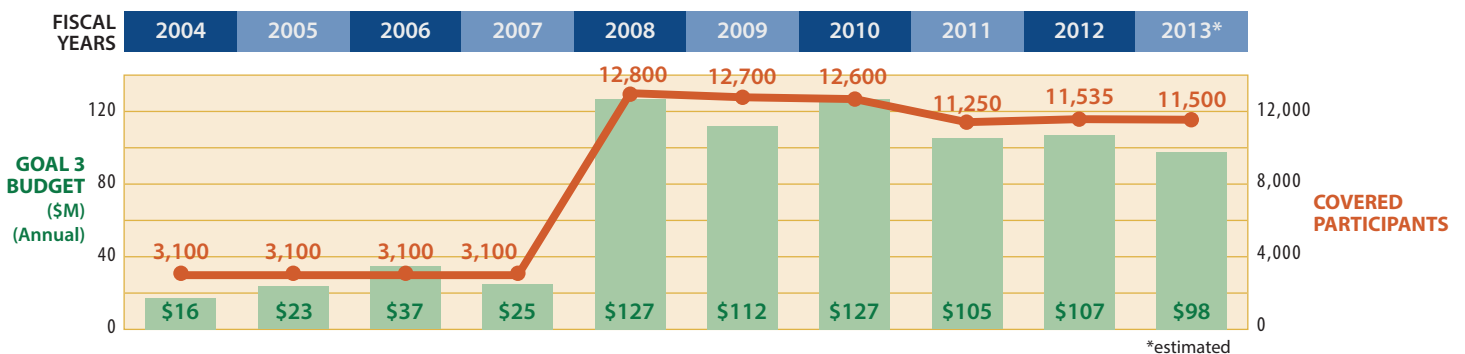
FY 2008 Conducted work force restructuring training in Seattle, Washington, for federal employees and contractors.

FY 2009 The majority of contractors' pension plan assets were invested in long-term bonds.

FY 2009 Received concurrence from OMB for LM's budget request allowing contractors to contribute additional funds to their pension plans as a means of reducing LM's financial risk and reducing future cost volatility.

FY 2010 Hosted National Day of Remembrance ceremony for nuclear weapons workers at Weldon Spring, Missouri, Site.

FY 2010 Forecasted pension plan cost for FY 2012 would drop to \$4 million.



Former contract workers' retirement benefits make up more than 50 percent of LM's budget.

FY 2011 Supported work force restructuring transition activities of DOE cleanup contractor employees by providing career and outplacement assistance.

FY 2011 Forecasted pension plan cost for FY 2013 and beyond would drop to \$0.

FY 2012 Sponsored complete dependent eligibility audits for Rocky Flats, Colorado, Site; and Mound, Ohio, Site; retiree medical plans resulting in \$1.7 million savings.

FY 2012 Reduced pension plan liability (and assets) for former Rocky Flats, Colorado, site workers by \$60 million offering lump-sum buyouts.

FY 2012 Built business case for DOE concurrence on USA Repository Services proposal to the annuitize pension plan covering former workers on Yucca Mountain Project, Nevada.

FY 2012 Hosted a workers reunion at Fernald Preserve (Ohio) for more than 300 former workers from production and cleanup eras.

FY 2013 Completed audits of post-retirement benefits plans covering retirees from Fernald, Ohio; and Pinellas County, Florida, Sites.

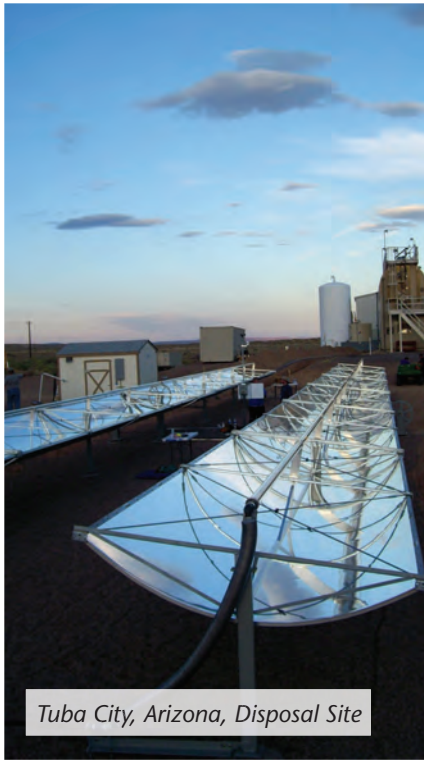
FY 2013 DOE concurs on contractor's proposal to terminate Fernald (Ohio) pension plan through the purchase of insurance company annuities.

FY 2013 Shut down operation of the Work Force Information System and the Jobs Opportunity Bulletin Board.



GOAL 4

Optimize the Use of Land and Assets



Tuba City, Arizona, Disposal Site



Fernald Preserve
Visitors Center (Ohio)

DOE had been working on transferring excess property and optimizing the public use of federal lands before LM was established. Many of these sites had residual risks associated with them and some form of institutional controls (ICs). LM's collaboration with EM over the last 10 years to facilitate transfer and reuse of these sites supported EM's process to select and install remedies, and allowed LM time to prepare for managing the land and property resources.

Goal 4 is aimed at achieving environmentally sound and protective land uses on LM sites. As part of this goal, LM makes its lands available for government, public, and private use provided such use is consistent with the site remedies, the tenets of sustainability, and the best practices of resource management. Enforceable, visible, and durable ICs are developed to ensure that any current and future site activities, such as beneficial reuse, are consistent with the primary goal and regulatory requirements necessary to protect human health and the environment.

Over the last decade, LM's post-closure, land management responsibilities have increased from 17,000 to 37,000 acres. LM has established goals to review land holdings and identify locations that have the potential for beneficial reuse. The intent is to reduce the federal footprint and to promote beneficial reuse on federal lands, while abiding by and maintaining the specific ICs of the individual sites. Beneficial reuse includes a range of options such as completing site transfer to third parties; partnering with industry for renewable energy; or using the land for agricultural, conservation, or recreational purposes.

LM has successfully conducted 6 property transfers, has 11 sites in reuse, has a photovoltaic solar project land lease in place, and is actively pursuing other property transfer and reuse opportunities. LM has been instrumental in developing and operating the Fernald Preserve Visitors Center and the Weldon Spring Interpretive Center as community outreach facilities with educational, nature-based programs. LM focuses on developing relationships with governmental entities, private entities, and nonprofit conservation organizations to enhance land use and heritage resource management planning and reuse of site assets.

At startup, LM received responsibility for policy and oversight of 14 community reuse organizations (CROs) that had been established by Section 3161 of the *Defense Authorization*

Act for FY 1993. The CROs were created to support economic development near DOE sites. While several of the original 14 CROs continue to operate today, only two have any DOE funds remaining.

As owner of uranium lease tracts and steward for former uranium mills, LM established a goal of improving domestic uranium mining and milling operations. The lease tracts are part of a program that DOE has operated for over 60 years. LM assumed responsibility for 38 lease tracts in 2003; encompassing more than 25,000 acres located in Mesa, Montrose, and San Miguel Counties of southwestern Colorado. At the end of 2013 LM was nearing completion of the final programmatic environmental impact statement, which looks at options ranging from closing the program to continued operation over the next 10 years.

KEY MILESTONES

FY 2004 Developed and promoted the Weldon Spring Interpretive Center (Missouri) educational program.

FY 2004 Placed 474 acres into reuse at L-Bar, New Mexico, Disposal Site for livestock grazing.

FY 2005 Hosted public scoping meetings to present information and receive comments on draft Environmental Assessment for Uranium Leasing Program (ULP).

FY 2005 Hosted first annual Howell Prairie Walk-and-Talk, which was open to the general public, at Weldon Spring, Missouri, Site.

FY 2005 Donated laboratory equipment and supplies worth more than \$690,000 to colleges and universities throughout the country.

FY 2006 Attracted more than 16,500 visitors to Weldon Spring Interpretive Center (Missouri) through public outreach efforts.

FY 2006 Placed 1 acre into reuse at Canonsburg, Pennsylvania, Disposal Site with the Borough of Canonsburg for Chartiers Creek stream bank preservation.

FY 2007 Placed 1,527 acres into reuse at Shirley Basin South, Wyoming, Disposal Site for livestock grazing.

FY 2007 Dispositioned 6-acre Wayne, New Jersey, Site to Wayne Township for recreational use.



C-JD-9 Mine (Uranium Leasing Program)



L-Bar, New Mexico, Disposal Site



Weldon Spring Interpretive Center (Missouri)



Rocky Flats, Colorado, Site

FY 2007 Assisted EM in transfer of nearly 4,000 acres of former Rocky Flats, Colorado, Site to U.S. Department of the Interior for use as a national wildlife refuge.

FY 2007 Announced expansion of the ULP.

FY 2008 Awarded 31 new 10-year leases on 25,000 acres in the ULP.

FY 2008 Opened a Leadership in Energy and Environmental Design (LEED) Platinum Visitor Center and 7 miles of trails for community use at the Fernald Preserve, Ohio.

FY 2009 Dispositioned 1-acre Parcel 117 at Canonsburg, Pennsylvania, Disposal Site for private development.

FY 2009 Recycled sanitary sewer treatment plant at Mound, Ohio, Site.

FY 2010 Dispositioned 7-acre New Brunswick, New Jersey, Site for private development.

FY 2010 Dispositioned 5-acre Black Bridge Parcel at Grand Junction, Colorado, Site to City of Grand Junction and a Mesa County entity for economic development.

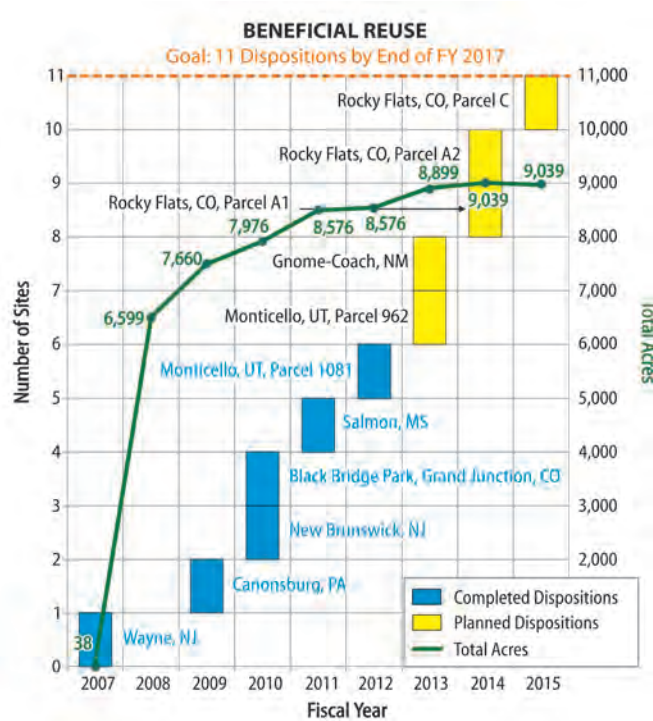
FY 2010 Expanded educational, nature-based programs for local students of all grade levels at the Fernald Preserve in Ohio.

FY 2010 Received two LEED certification awards from Green Building Council for design and construction of LMBC (first double-gold building in West Virginia).



FY 2011 Placed 977 acres into reuse at Bear Creek, Wyoming, Disposal Site for livestock grazing.

FY 2011 Dispositioned surface ownership of 1,470-acre Salmon, Mississippi, Site to State of Mississippi to use as a wildlife refuge and working demonstration forest.



Transfer of the Salmon, Mississippi, Site

FY 2011 Placed 153 acres into reuse at Falls City, Texas, Disposal Site for hay production.

FY 2012 Expanded LM's site reuse portfolio by leasing 22 acres at the Durango, Colorado, Disposal Site for a photovoltaic solar project.

FY 2012 Expanded LM's site reuse (376 acres) portfolio through partnership with Colorado Mesa University to explore environmental challenges at Grand Junction, Colorado, Disposal Site.

FY 2012 Placed 360 acres into reuse at the Edgemont, South Dakota, Disposal Site for livestock grazing.

FY 2012 Constructed a 285-kilowatt solar photovoltaic system at Tuba City, Arizona, Disposal Site.

FY 2012 Dispositioned 180-acre Parcel 1081 at Monticello, Utah, Disposal and Processing Sites for private development.

FY 2012 Placed 14 acres into reuse at Spook, Wyoming, Disposal Site for livestock grazing.

FY 2013 Partnered with U.S. Fish and Wildlife Service and Cincinnati Zoo and Botanical Garden to facilitate recovery of American Burying Beetles at Fernald Preserve, Ohio, under authority of Endangered Species Act of 1973.

FY 2013 Received DOE Sustainability Award for effective and innovative approach in implementing Environmental Management Systems.



Falls City, Texas, Disposal Site



Tuba City, Arizona, Disposal Site



DOE Sustainability Award

Sustain Management Excellence

Parts of EM were combined with the Office of Worker and Community Transition to establish LM. EM contributed members of its staff that were employed at the National Energy Technology Laboratory along with resources from the Office of Long-Term Stewardship and from the Grand Junction, Colorado, office. These organizations had different missions and cultures and federal staff were located in six different geographic locations.

LM's organizational structure has evolved with its changing mission and the office has either transferred or ended its responsibility for oversight of strategic materials, workforce restructuring, labor relations and standards, and radiological assistance. LM's growth has been in its core mission areas of maintaining environmental remedies, managing records and information, retiree pensions and benefits, and beneficial reuse of land. As major sites were added and LM shed functions that were better performed by other parts of the Department, LM reorganized into two primary offices, Site Operations and Business Operations.

In 2007, LM was designated a high-performing organization (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. A 28 percent reduction in federal staff (from 81 to 58) while simultaneously increasing program scope convinced OMB to designate LM as the second HPO in the federal government. In 2012, LM completed its 5-year contract as an HPO and reapplied to OMB for an additional 5 years. The application reported a slow growth of federal staff from an authorized level of 60 in 2012 to 64 in 2016. The growth in federal staff was deemed necessary to address a sustained increase in the number and complexity of new sites.

At its inception, LM was authorized 81 federal staff who were based in Washington, DC; Morgantown, West Virginia; Pittsburgh, Pennsylvania; Pinellas, Florida; and Grand Junction, Colorado. From the beginning, LM has worked to become more efficient and to place federal staff closer to the customer. Over the last decade, LM closed its offices in Pittsburgh, Pinellas, and Las Vegas, Nevada; and opened offices in Westminster, Colorado, and southwest Ohio. Over 20 percent of the staff was reassigned new positions in new locations to address changes in workload and missions.

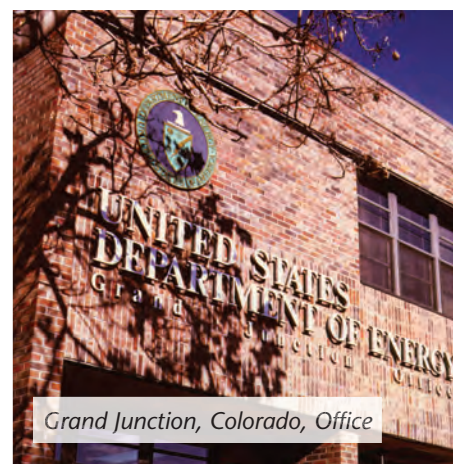
Perhaps unique in DOE, LM established a joint Environmental Management System with its nationwide support contractor.



Washington, DC, Office



Westminster, Colorado, Office



Grand Junction, Colorado, Office



ENVIRONMENTAL MANAGEMENT SYSTEM

Embracing the Environment

The program has enabled LM to operate more safely than the Department average, achieve 100 percent compliance with environmental remedies, and be a leader in sustainability. The LM contractor achieved Voluntary Protection Program STAR status from the Department's Office of Health, Safety and Security.

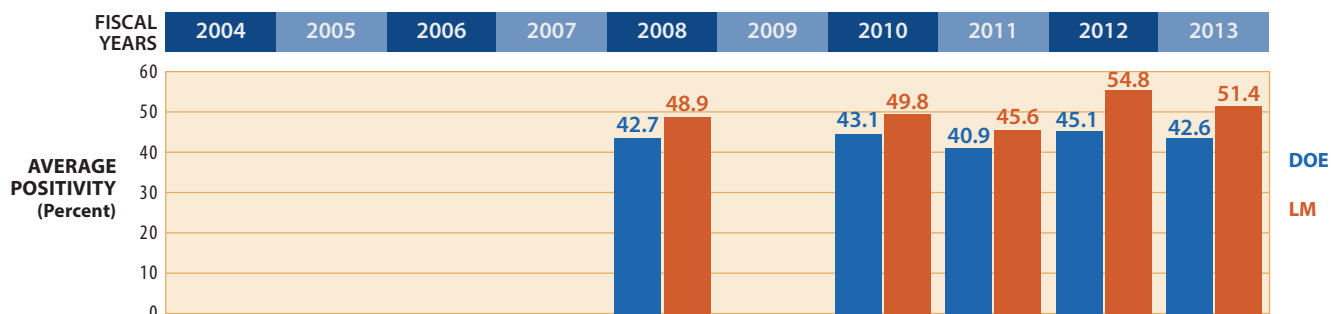
LM completed strategic plans in 2003, 2007, and 2011. These plans have helped guide the organization through substantial growth, functional changes, and a significant turnover in personnel due largely to an ageing workforce. LM has also invested in extensive planning efforts related to the management of human capital with an emphasis on diversity and inclusion.

In its early years, LM struggled to integrate the different offices and functions into a coherent and efficient operation. Prior to efforts to pursue designation as an HPO, LM performed poorly on the Office of Personnel Management's Federal Employee Viewpoint Survey; a quantitative analysis of the opinions of employees across the federal government. Since 2008, LM has consistently scored 5 to 10 percentage points better than the DOE average on this survey, indicating that LM employees consider the organization one of the best places to work within the Department.



KEY MILESTONES

FY 2004 DOE established LM with 81 federal staff located in Washington, DC; Germantown, Maryland; Morgantown, West Virginia; Pittsburgh, Pennsylvania; Pinellas County, Florida; and Grand Junction, Colorado, in December 2003.



This graph represents the Federal Employee Viewpoint Survey positivity scores from 2008 to present; prior to 2010 the survey was sent out only every other year. Survey results show that LM received positive scores in all categories (percentages are obtained by subtracting negative responses from positive responses on each survey question). Neutral responses were not factored into percentages.

The Office of Personnel Management sends out this survey to all federal agencies as a management tool to drive organizational change at both the agency and management levels. The survey should be used to develop, implement, and evaluate action plans that drive improvements within the organization.



- FY 2004 The primary functions of the organization were viewed as LTS&M (see Goal 1) and Pension and Benefits Continuity (see Goal 3).
- FY 2004 Organized as LM-4, LM-5, LM-6, LM-10, LM-20, LM-30, LM-40, and LM-50.
- FY 2004 Completed first LM *Strategic Plan*.

- FY 2005 Initiated formal process for becoming an HPO.
- FY 2005 Closed the federal office at Pinellas, Florida.
- FY 2005 Received DOE lead for Environmental Justice.
- FY 2005 Reorganized LM into Business Operations (LM-10) and Site Operations (LM-20).



- FY 2006 Closed Germantown, Maryland, office and relocated remaining staff and work assignments to Washington, DC; and Morgantown, West Virginia.
- FY 2006 Established joint Environmental Management System for LM.
- FY 2006 Developed LM's *Human Capital Management Plan* for FY 2007 through FY 2010.

- FY 2007 Completed effort to downsize to 58 federal staff members.
- FY 2007 Achieved safety record better than DOE average. Successfully implemented Title 10 *Code of Federal Regulations* Part 851, *Worker Safety and Health Program*, ahead of schedule.
- FY 2007 Completed first evaluation under OMB's Program Assessment Rating Tool and received a score of "moderately effective."



- FY 2007 Archives and Information Management (see Goal 2) is recognized as a separate activity.
- FY 2007 Received designation from OMB in February as the second HPO in the federal government.
- FY 2007 Completed second *Strategic Plan* for LM in May.

FY 2008 Completed acquisition of new performance-based, small business contractor (S.M. Stoller Corporation) to support Goals 1, 2, 4, and 5.

FY 2008 LM's nationwide support services contractor (S.M. Stoller Corporation) achieved 1 million safe work hours.

- FY 2008 Closed Pittsburgh, Pennsylvania, office and moved remaining staff and work assignments to Morgantown, West Virginia.
- FY 2008 Received responsibility for Rocky Flats, Colorado; and Fernald, Ohio, closure sites; LM program budget more than triples.
- FY 2008 Asset Management (see Goal 4) becomes a separate activity.

FY 2009 Received a green rating (highest achievable grade) on all six Presidential Management Agenda initiatives.

LM consistently remained below the DOE complex and Bureau of Labor recordable incident statistics for rolling 12-month periods.

- FY 2010 Hosted Native American Cultural Awareness Training with cooperation from Navajo and Hopi tribal representatives.
- FY 2010 Transferred human resources services from National Energy Technology Laboratory to Headquarters Human Resources.
- FY 2010 Split Environmental Team into two separate teams, one team for Resource Conservation and Recovery Act/CERCLA/FUSRAP sites and one team for Uranium Mill Tailings Radiation Control Act sites and Nevada Offsites.



DOE Management Award

- FY 2011 Received top DOE Management Award for costs savings for System Operation and Analysis at Remote Sites project.
- FY 2011 Consolidated Fernald Preserve and Mound offices in Ohio.
- FY 2011 Received Federal Electronics Challenge bronze-level award for improved sustainability practices for life-cycle management of electronic assets.
- FY 2011 Issued third *Strategic Plan* in January.
- FY 2011 Issued LM's FY 2011 through FY 2015 *Human Capital Management Plan*.

FY 2012 Support services contractor awarded Voluntary Protection Program STAR Status.

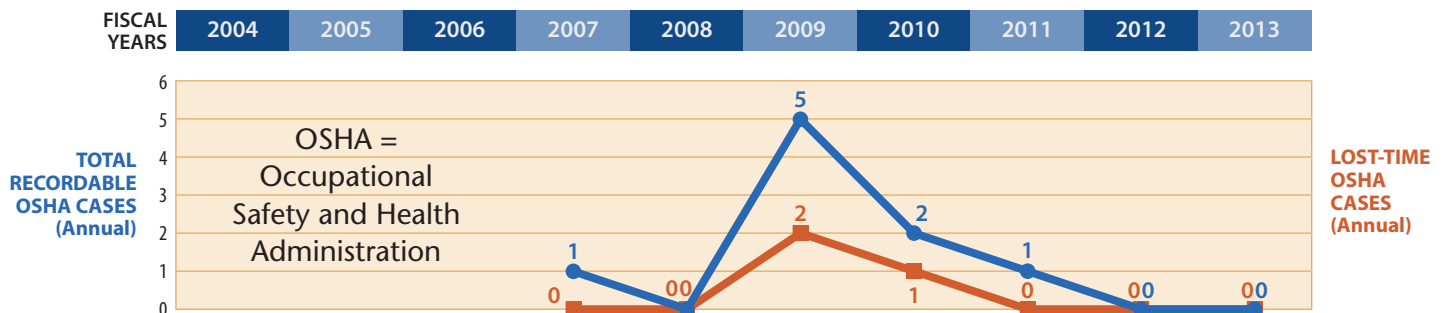


- FY 2012 Partnered with Diné Environmental Institute on remediation of uranium processing sites on Navajo Nation.
- FY 2012 DOE Deputy Secretary transmitted LM's second 5-year HPO proposal to OMB.
- FY 2012 Closed Las Vegas, Nevada, office.
- FY 2012 Received responsibility for Mound, Ohio, Site and the Records/IT and Pension and Benefit functions for Yucca Mountain Project, Nevada.
- FY 2012 Developed LM's first *Diversity and Inclusion Implementation Plan*.



Yucca Mountain Project, Nevada

- FY 2013 Completed independent communication and outreach stakeholder satisfaction survey.
- FY 2013 LM ends responsibility for Work Force Restructuring.
- FY 2013 Split HR/Administrative Team into two teams; Human Resources Team, which reports to Office of the Director; and Administrative Team, which reports to Office of Business Operations.



Looking Ahead to the Next Decade

Every part of LM is organized according to our five goals, our people, our budget, and our performance measures. Therefore, it is not surprising that we would look ahead to 2023 in the same manner. The final section of this document communicates some of the challenges that LM faces over the next decade.

Goal 1

- We will direct our sights forward to ensure protectiveness of environmental remedies as we address the effects of natural forces, demographic shifts, and local and regional development.
- We plan to add approximately 30 more sites to our responsibility list over the next decade, increasing our site number to approximately 120. These sites will present challenges in terms of geographic location, staffing levels, resource requirements, and resolution of new technical issues.
- We will complete a Report to Congress on the status of abandoned uranium mines associated with defense-related activities. The report may result in legislative action on mine reclamation and remediation.

Goal 2

- We will adjust to changes in records policies by NARA. We will decide whether to extend our lease for the LMBC, which contains the majority of our paper records and our data center.
- We expect to see a decrease in requests for information responding to Energy Employees Occupational Illness Compensation Policy Act and Privacy Act claims from former workers associated with existing sites. We will add requests from our new sites.
- We will enhance our geographic information system and other IT systems. The improved systems will make our data more accessible, easier to analyze, and more useful.



Goal 3

- We expect our contractors to complete the conversion of retiree pension plans through either lump-sum allotments or the purchase of insurance company annuities.
- Our contractors will continue to made adjustments to health insurance plans to reflect changes in federal laws and regulations.
- We project LM funding for post-retirement benefits for existing sites will peak in 2021. After that, retiree eligibility for Medicare and mortality will outweigh increases in the cost of health care.
- We will add responsibility for the pension plans and post-retirement benefits of former contractor workers as EM completes cleanup and transfers additional closure sites to LM.

Goal 4

- We expect to achieve even more challenging federal government sustainability goals.
- We will continue to improve the beneficial reuse of property, enhance our use of institutional controls, and dispose of additional federal properties.
- We will implement the Record of Decision for the ULP.

Goal 5

- We must address the many issues (e.g., retention of knowledge) associated with our aging federal and contractor workforce.
- We will renew our HPO proposal, adding even more challenging goals and objectives, in order to sustain our designation.
- We will focus increased attention on safety as we add sites and travel additional miles for site-related work.



Rocky Flats, Colorado, Site

Acronym List

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CROs	community reuse organizations
DOE or Department	U.S. Department of Energy
EERE	Office of Energy Efficiency and Renewable Energy
EM	Office of Environmental Management
EMS	Environmental Management System
FUSRAP	Formerly Utilized Sites Remedial Action Program
FY	fiscal year
HPO	high-performing organization
ICs	institutional controls
IT	information technology
LEED	Leadership in Energy and Environmental Design
LM	Office of Legacy Management
LMBC	Legacy Management Business Center
LTS&M	long-term surveillance and maintenance
NARA	National Archives and Records Administration
OMB	U.S. Office of Management and Budget
ULP	Uranium Leasing Program
WT	Office of Worker and Community Transition



This document was printed on paper manufactured with post-consumer waste as part of LM's commitment to environmental responsibility. Using recycled paper conserves resources, saves energy, and reduces pollution.

*Back cover photos, top to bottom:
Weldon Spring, Missouri, Site;
Fernald Preserve Visitors Center (Ohio);
LMBC, Morgantown, West Virginia;
Canonsburg, Pennsylvania, Disposal Site;
Tuba City, Arizona, Disposal Site;
Amchitka, Alaska, Site*



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

Office of Legacy Management
The First Decade
2003–2013