# Ten Years of Legacy Management: U.S. DOE Office of Legacy Management Accomplishments - 13246

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## ABSTRACT

The U.S. Department of Energy (DOE) established the Office of Legacy Management (LM) to provide a long-term, sustainable solution to environmental impacts that remain from nuclear weapons production during World War II and the Cold War. The production activities created adverse environmental conditions at over 100 sites. When LM was established on December 15, 2003, it became responsible for 33 sites where active environmental remediation was complete. Currently, LM is responsible for long-term surveillance and maintenance of environmental remedies, promotion of beneficial reuse of land and buildings, and management of records and information at 89 sites in 29 states and Puerto Rico. LM is also responsible for meeting contractual obligations associated with former contractor workers' pensions and post-retirement benefits. Effectively addressing this environmental and human legacy will continue to require a focused and well-managed effort.

## INTRODUCTION

During World War II and the Cold War, the federal government developed and operated a vast network of industrial facilities for the research, production, and testing of nuclear weapons, as well as for other scientific and engineering research. These processes left a legacy of radioactive and chemical waste, environmental contamination, and hazardous facilities and materials at more than 100 sites. Since the end of the Cold War, DOE has been conducting environmental cleanup at sites where contamination remained from work performed for the U.S government. DOE established LM to provide long-term surveillance and maintenance at sites where DOE's mission and active environmental cleanup have been completed. LM is responsible for protecting human health and the environment at these sites, public outreach and stakeholder interactions, management of site records and information, pension and post-retirement benefit claims for former contractor employees, and site real property transactions.

When LM was established on December 15, 2003, it became responsible for 33 sites where active environmental remediation had been completed. Ten years later, LM is now responsible for the long-term surveillance and maintenance of environmental remedies, promotion of

beneficial reuse of land and buildings, and management of the records and information at 89 sites in 29 states and territories in the United States, ranging from Alaska to Puerto Rico.

After merging personnel from three widely dissimilar missions and work cultures—the Worker and Community Transition Program in Washington, D.C.; the Environmental Management Long-Term Surveillance and Maintenance Program; and the National Energy Technology Laboratory—into a productive and cohesive working group, management and employees began an intense effort to define its organization for long-term sustainable operation. LM now has 60 federal employees and approximately 350 contractors at locations in Grand Junction, Colorado; Monticello, Utah; Morgantown, West Virginia; Pinellas, Florida; Southwest Ohio (the Fernald Preserve site); St. Charles, Missouri (the Weldon Spring site); Tuba City, Arizona; Washington, D.C.; and Westminster, Colorado (the Rocky Flats site).

## MISSION

The LM mission is to manage DOE's post-closure responsibilities and ensure the future protection of human health and the environment. LM's five primary goals are to:

- Protect human health and the environment.
- Preserve, protect, and share records and information.
- Meet commitments to the contractor workforce.
- Optimize the use of land and assets.
- Sustain management excellence.

### Protect Human Health and the Environment

LM is responsible for protecting human health and the environment at LM sites, ensuring that sites are monitored to detect contaminant migration, and that maintenance of barriers and treatment facilities occur in a safe, timely, and cost-effective manner. LM conducts periodic reviews of remedy performance data to evaluate alternatives, as appropriate, that would provide more permanent remedies, improved monitoring, and/or better protectiveness.

Technical limitations, economic limitations, or worker health and safety considerations prevent many legacy sites from being remediated for unrestricted use. These sites must nevertheless meet regulatory standards for, and agreements on, engineered and institutional controls for in-place remedy integrity and the protection of human health, the environment, and heritage resources (natural, cultural, and historical). It is LM's responsibility that these controls remain effective.

Given the long-lived nature of radionuclides, long-term surveillance, monitoring, and maintenance at some sites will be required for hundreds or even thousands of years. As time goes on, LM will take any corrective actions necessary to modify engineered cells, treat contaminated

groundwater, and sustain institutional controls. Further, concerns about site protectiveness and integrity and future technological development or future land-use changes may lead to changes in the selected remedies.

**Preserve, Protect, and Share Records and Information**

LM manages records consistent with legal and regulatory requirements, following National Archives and Records Administration and DOE guidance. As sites are identified for mission closure, remediated, and transferred into LM authority, the associated records and information are preserved. LM has consolidated the physical records and information operations in the Legacy Management Business Center (LMBC) facility in Morgantown, West Virginia.

LM has enhanced electronic records accessibility through a centralized data center. The data center manages more than 13 terabytes of electronic record material and information. LM preserves records collections in its state-of-the-art, climate-controlled storage area designed to maximize LM's preservation capabilities. The facility has the capacity to house 150,000 cubic feet of record materials. Climate-controlled storage ensures the long-term availability of physical records in LM custody. LM is also applying approved and consistent physical protection measures to ensure the trustworthiness, integrity, and availability of the records LM maintains.

LM's records and information management program continues to enhance its capabilities to protect, preserve, and provide access to records and information systems. The program effectively and efficiently identifies, collects, and disseminates information from record sources to internal and external stakeholders. The LMBC lowers the cost of records storage and improves efficiencies and responsiveness to stakeholders seeking information about America's Cold War-era nuclear sites.

**Meet Commitments to the Contractor Workforce**

The completion of missions at certain DOE sites also affects former contractor employees at the sites. After the completion of site cleanup, the contractor is no longer onsite to administer contractor pensions and other long-term benefits. To meet DOE's objective of avoiding benefit interruption or inconvenience to plan participants, the administration of pensions and benefits at closed sites was either transferred to other DOE contracts or retained by modifying the current contract.

LM and DOE leaders have developed a course of action to continue post-retirement benefits for contractor workers at closure sites as well as at active sites across the DOE complex. LM has worked to ensure a seamless transition of post-retirement benefits to the former contractor employees at the closure sites that have transferred or will transfer to LM.

**Optimize the Use of Land and Assets**

One of LM's goals is to sustain environmentally sound and protective land use on LM sites. To accomplish this, LM implements DOE land use planning processes, taking into account economic, ecological, social, and cultural factors surrounding each site or parcel of land. Where possible, LM makes lands and facilities available for government, public, and private use consistent with the tenets of sustainability and good land management practices.

Real property reuse within LM is organized into the following categories: property disposition, renewable energy, conservation, agriculture, community, and commercial/industrial. These categories represent potential LM reuse possibilities and existing programs across many agencies. Beneficial reuse can occur on DOE-owned lands, lands over which DOE has jurisdiction, and lands where DOE has no ownership interest but for which DOE has responsibility to manage residual contamination. Real property reuse or disposition must be protective of people, environmental media, and cultural resources, and must meet long-term surveillance and maintenance requirements.

Highlights of LM's optimization of land and assets challenges and accomplishments since its inception include:

- Restoring the natural features of the 1,050-acre Fernald Preserve from a former uranium-processing facility in Ohio and creating a 10,000-square-foot Leadership in Energy and Environmental Design (LEED) Platinum-certified Visitors Center.[1]
- Enhancing the Weldon Spring Site in Charles County, Missouri, for both recreation and education, including a hike-and-bike trail and a 9,000-square-foot Interpretive Center.[1]
- Completing the LM Business Center, a LEED Silver-certified facility in Morgantown, West Virginia. The center houses LM's records collection, the LM consolidated data center, and LM federal and contractor employees working at the Morgantown facility.
- Selling and transferring property, including the Wayne Interim Storage Site and the New Brunswick Laboratory in New Jersey, a portion of the Canonsburg Disposal Site in Pennsylvania, and the Black Bridge Site in Grand Junction, Colorado. In December 2010, LM transferred surface ownership of the 1,500-acre Salmon, Mississippi, Site to the Mississippi Forest Commission as a wildlife refuge and forest demonstration project. This transfer made more than $2 million in timber available to the State of Mississippi.

[1] The two centers, established as part of the environmental remedy, average more than 20,000 visitors a year. They serve to inform the surrounding communities about the site conditions and have proven to be an effective institutional control.

**Sustain Management Excellence**

In 2007, LM received the second high-performing organization (HPO) designation in the federal government from the U.S. Office of Management and Budget (OMB). The Office completed its 5-year commitment as an HPO and has reapplied to OMB for a 5-year extension. The HPO application commits LM to a set of programmatic goals, efficiency measures, personnel management practices, and funding limits for federal staff. LM anticipates continued growth in mission, scope, and functions as sites are cleaned up, closed, and transferred.

The need to achieve long-term sustainability is becoming more important as the nation attempts to manage increasing energy demands while reducing environmental impacts. Recent Executive Orders and changes to federal laws and regulations require that LM use less energy, increase recycling efforts, restore lands, and improve environmental quality. LM has implemented operational changes that reduce LM's carbon footprint and enhance overall performance.

Highlights of LM's management challenges and accomplishments since its inception include:

- Inheriting the regulatory and legal responsibilities associated with sites transferred from DOE programs and external entities engaged in uranium milling and industrial activities for research, production, and testing of nuclear energy and weapons.
- Receiving the OMB designation as the second HPO in the federal government. LM achieved this designation in February 2007 by meeting numerous program-specific performance measures and by achieving a $15 million reduction in the cost of federal staff over a 5-year period. As an HPO, LM has shown the ability to take on additional scope while remaining cost-effective and providing sustainable, long-term management of the environmental nuclear legacy.
- Leading the effort for the DOE-wide Environmental Justice program with specific activities conducted by a variety of DOE program offices. LM is responsible for ensuring that DOE conducts all of its activities in compliance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.
- LM's site responsibility is expected to grow from 89 sites in 2013 to 126 sites by 2020. The growth will make a significant addition to LM's land stewardship and records management responsibilities, and it will increase the number of contractor retirees for which LM administers pensions and post-retirement benefits.

## THE FUTURE OF LEGACY MANAGEMENT

LM will continue its mission to manage DOE's post-closure responsibilities and ensure the future protection of human health and the environment. By 2020, it is predicted that LM will be responsible for 126 sites where active environmental remediation has been completed (Figure 1).

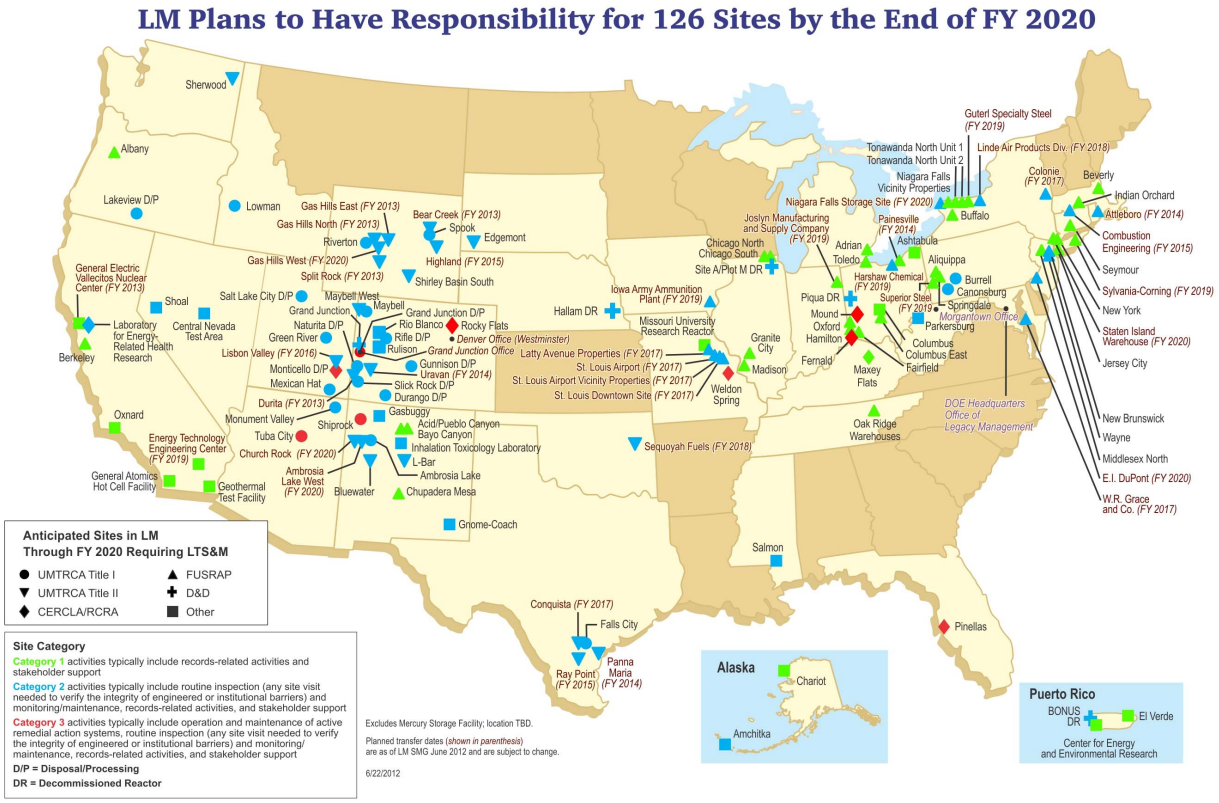


Figure 1. Anticipated Sites in LM in Fiscal Year 2020.

## CONCLUSION

During the last 10 years, LM has made major strides in positioning itself to manage increased program responsibilities while meeting DOE's goals for reducing costs and increasing efficiency. LM will continue to perform its critical function in a manner consistent with its designation as a high-performing organization. As part of this effort, LM has tied specific performance measures to each of the five primary goals. LM recognizes that these goals can be achieved only through close coordination of legacy management activities with stakeholders, Congress, regulators, and state, tribal, and local governments.