

Site Sustainability Plan
U.S. Department of Energy
Office of Legacy Management

December 2013



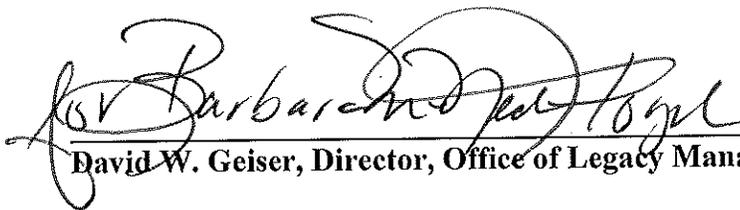
U.S. DEPARTMENT OF
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December 2013

 David W. Geiser, Director, Office of Legacy Management 12/5/2013
Date

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Abbreviations

AFV	alternative fuel vehicle
APIA	Aleutian Pribilof Islands Association Inc.
Btu	British thermal unit
CAS	Condition Assessment Survey
CEDR	Consolidated Energy Data Report
CO ₂	carbon dioxide
D&D	Deactivation and Decommissioning; Decontamination and Decommissioning
DOE	U.S. Department of Energy
E85	Fuel blend 85% Ethanol
EISA	Energy Independence and Security Act
EM	Office of Environmental Management
EMIT	Enterprise Management and Information Technology
EMS	Environmental Management System
EO	Executive Order
EPAct	Energy Policy Act
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
EPEAT	Electronic Product Environmental Assessment Tool
ESL	Environmental Sciences Laboratory
ESPC	Energy Savings Performance Contract
FAST	Federal Automotive Statistical Tool
FDCCI	Federal Data Center Consolidation Initiative
FEMP	Federal Energy Management Program
FIMS	Facilities Information Management System
FY	fiscal year
GHG	greenhouse gas
GP	Guiding Principle
GSA	U.S. General Services Administration
GSF	gross square feet; gross square footage
HPSB	high-performance and sustainable building
HRPP	High Risk Personal Property
HVAC	heating, ventilation, and air-conditioning
IAEA	International Atomic Energy Agency

ILA	industrial, landscaping, and agricultural
IPM	Integrated pest management
JAMIS	Job Cost Accounting Management Information System
kW	kilowatts
LEED	Leadership in Energy and Environmental Design
LM	Office of Legacy Management
LMBC	Legacy Management Business Center
LMS	Legacy Management Support
NC	New Construction
NECPA	National Energy Conservation Policy Act
NREL	National Renewable Energy Laboratory
OMB	U.S. Office of Management and Budget
P.L.	Public Law
PIN	personal identification number
PPOA	pollution prevention opportunity assessment
PPTRS	Pollution Prevention Tracking and Reporting System
PREP	Preliminary Real Estate Plan
PUE	power utilization effectiveness
PV	photovoltaic
REC	Renewable Energy Certificate
RSLS	Regulatory Supervision of Legacy Sites
SF ₆	sulfur hexafluoride
SOARS	System Operation and Analysis at Remote Sites
SPO	Sustainability Performance Office
SSP	Site Sustainability Plan
SSPP	Strategic Sustainability Performance Plan
T&D	transmission and distribution
U.S.C.	<i>United States Code</i>
UMTRCA	Uranium Mill Tailings Radiation Control Act
WMP2	Waste minimization and pollution prevention
WUI	water use intensity

I. Executive Summary

a. Site Management Vision

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) is committed to excellence in environmental stewardship. LM's mission is to fulfill the DOE's post-closure legacy site responsibilities and ensure the protection of human health and the environment. LM is responsible for monitoring, testing, inspecting, and maintaining more than 65,000 acres of land at 90 sites in 28 states and Puerto Rico. Actions at some of these sites are limited to management of records and public outreach. LM's goals are to protect human health and the environment; preserve, protect, and share records and information; optimize land and asset use; and sustain management excellence.

LM's Environmental Management System (EMS) comprehensively incorporates life-cycle environmental considerations into all aspects of the LM mission. LM's EMS is a joint program between LM and its prime contractor for the Legacy Management Support (LMS) contract. The joint program ensures that all coordinating parties are equally focused on sustainability as one of the outcomes for all LM activities.



Note 1

In this document, a reference to "LM" represents both LM and LMS (for data, personnel, etc.) unless specifically noted otherwise.



Note 2

Unless stated otherwise, all data are reported in fiscal years (FYs).

b. Major Planning Assumptions and Issues, Including Funding Strategies

The purpose of this Site Sustainability Plan (SSP) is to outline the strategies for managing, funding, and implementing sustainability-related activities at LM. This plan reflects the strategies in place and the progress made in accomplishing the goals and requirements established by multiple laws, Executive Orders, Presidential Memorandums, and DOE directives or memorandums.

LM, with its comprehensive approach to fulfilling the regulations and directives, will advance the DOE sustainability mission with a diverse approach and a concentrated effort toward the goals of 2014 and beyond.

LM's multipronged method of achieving these goals will include training and education to foster behavioral change in the office environment, implementing infrastructure improvements, and operating onsite renewable-power-generating projects. Areas that have a priority focus for reduction are electricity purchased from a utility, fugitive emissions, and usage and reduction of fleet vehicles. To complete the deliverables for these priority areas, LM will work with its multiple EMS sustainability teams and the LM operations and maintenance staff. In addition, LM will enlist the technical expertise of its scientists and engineers to enable LM to operate sustainably. This fostering of sustainable operations will include continued emphasis on behavior change.

LM integrates funding for long-term sustainability projects in the normal budget process. Costs are submitted in the Sustainability Crosscut budget and other related budget calls.

c. Successes and Challenges, Including Traditional Triple Bottom Line Activities

In 2013, LM successfully passed its annual internal EMS audit. It is very important that a legacy organization demonstrate leadership in sustainability.

The LM EMS is a model for effective federal/contractor joint implementation and is effectively pursuing attainment of the goals. However, LM is a small organization within DOE and quantitatively should not significantly affect attainment of DOE's overall sustainability goals.

LM achieved or exceeded goals involving greenhouse gas (GHG) Scope 1, 2, and 3 emissions; existing buildings meeting guiding principles; alternative fuel consumption; petroleum fuel reduction; fleet reduction; alternative fuel vehicle (AFV) purchasing requirements; potable water intensity reduction; industrial, landscaping, and agricultural (ILA) consumption; construction and debris waste recycling; sustainable acquisition; and electronic stewardship and data centers. LM failed to achieve its goals for metering 90 percent of its electricity usage, energy use intensity, and solid waste diversion.

A major challenge in the coming years will be the expected increase in workload and resources associated with the transfer of additional sites to LM. As DOE, the U.S. Army Corps of Engineers, and private uranium mill licensees complete environmental remediation efforts and sites are closed, LM's long-term surveillance and maintenance responsibilities will increase, requiring continual improvement in efforts to protect human health and the environment. Between now and 2020, LM expects to receive approximately 40 more sites for long-term care. As LM takes on these additional sites, there will be increases in the number of employees, office space, vehicles, fuel use, purchases, and waste. In addition, these future sites will have buildings that will affect those sustainability goals that use either the number of buildings or the total square footage in calculations (e.g., energy intensity and water intensity). The final condition of these sites when LM accepts them could vary greatly, and the overall impact to sustainability goals is difficult to predict. As these sites are transferred, LM will monitor the impacts to sustainability goals and related funding. LM might need to seek additional funding for and/or relief from achievement of certain sustainability goals.

Behavioral change is challenging, but it is essential for successful sustainability programs. Unlike physical facility or technology upgrades, behavioral changes are often low- or no-cost, voluntary actions. Often, the most difficult step in the change process is the realization that change is needed. Employees must realize that even though they do not personally receive any savings or are not penalized for nonparticipation, their actions are instrumental in achieving sustainability goals. LM will continue to train, communicate with, and engage employees so that behavioral changes continue.

As identified in the "Site Management Vision" section above, LM has multiple goals to support its mission in a sustainable manner. Underlying these goals, LM has core values that support the traditional Triple Bottom Line activities (Social Responsibility, Economic Prosperity, and Environmental Stewardship). For social responsibility, LM focuses on communication and safety

with individuals, both internally and externally. For economic prosperity, LM promotes business excellence by being fiscally responsible and actively pursues best business practices. For environmental stewardship, LM consults with its communities to make informed decisions that comply with environmental laws, regulations, and agreements; support environmental justice; and demonstrate respect for the environment.

d. Summary Table of Goal Targets

See Table 1 for a summary of 2013 performance and long-term projected performance to attain DOE goals through 2020. See Attachment A for a copy of LM's Environment, Safety, and Health policy.

Table 1. DOE Goal Summary Table^a

SSPP Goal #	DOE Goal	Performance Status Through FY 2013	Planned Actions & Contribution	Risk of Non-attainment
GOAL 1: Greenhouse Gas Reduction and Comprehensive Greenhouse Gas Inventory				
1.1	28% Scope 1 & 2 GHG reduction by FY 2020 from a FY 2008 baseline. (2013 target: 17%)	The 2013 interim target has been exceeded. Scope 1 & 2 GHG has been reduced 49% from the 2008 baseline.	Continue to implement actions to further reduce GHG production.	Low
1.2	13% Scope 3 GHG reduction by FY 2020 from a FY 2008 baseline. (2013 target: 4%) ^b	The 2013 interim target has been exceeded. Estimated 24.3% reduction pending LM business air and ground travel emissions. 2012 emissions amounts for those areas were included in the preliminary calculation as placeholders for the forthcoming U.S. General Services Administration (GSA) business travel data for LM.	Scope 3 GHG calculations can fluctuate when there are changes in baseline or emission calculations. LM will continue to be vigilant in determining ways to maintain goal status and continuous improvement.	Low
GOAL 2: Buildings, Energy Savings Performance Contract (ESPC) Initiative Schedule, and Regional and Local Planning				
2.1	30% energy intensity (British thermal units per gross square foot) reduction by FY 2015 from a FY 2003 baseline. (2013 target: 24%) ^{c, d, e, f}	The 2013 interim target has not been met. LM's 2013 Energy Intensity increased by 55.6%. This increase was due mainly to demolition of the Weldon Spring, Missouri, Site Administration Building, which reduced LM's building square footage used in the calculation by almost 50%. Overall energy consumption decreased by 11.8% from 2012 and 28.8% from a 2008 baseline.	The Fernald, Ohio, Site well field, which uses over 65% of LM's total power, will have dedicated metering installed in FY 2014. This will allow Fernald well-field energy use to be excluded from the energy intensity calculation under the Energy Independence and Security Act (EISA).	Low
2.2	EISA Section 432 energy and water evaluations	Water audit to verify metering conditions was performed at the Weldon Spring site in 2013. No energy audit was scheduled or performed in 2013.	Selection of audited sites is rotated to ensure that 100% of the sites are audited every 4 years to meet the requirements of EISA Section 432.	Low
2.3	Individual-building metering for 90% of electricity (by October 1, 2012); for 90% of steam, natural gas, and chilled water (by October 1, 2015) (2013 target: 90% and 50%, respectively) ^g	The 2013 interim target has not been met for electricity. The 2013 interim target has been exceeded for natural gas. 29.4% of LM's buildings and processes are individually metered for electricity. 100% are individually metered for natural gas. LM does not have steam or chilled water.	With the installation of Fernald well-field metering by mid-2014, 72.7% of buildings and processes will be individually metered, with 99.1% individually metered by 2015.	None

Table 1 (continued). DOE Goal Summary Table^a

SSPP Goal #	DOE Goal	Performance Status Through FY 2013	Planned Actions & Contribution	Risk of Non-attainment
2.4	Cool roofs, unless uneconomical, for roof replacements unless project already has Critical Decision (CD)-2 approval. New roofs must have thermal resistance of at least R-30. ^h	LM did not do any roof replacements in 2013.	No roof replacements are planned for 2014.	Low
2.5	15% of existing buildings greater than 5,000 gross square feet (GSF) are compliant with the Guiding Principles (GPs) of high-performance and sustainable buildings (HPSB) by FY 2015. (2013 target: 11%)	Two leased buildings met the HPSB GPs; the 15% goal has been exceeded. LM is currently at 37.5%.	Two additional leased buildings are on track to meet the HPSB GPs in 2014.	Low
2.6	All new construction, major renovations, and alterations of buildings greater than 5,000 GSF must comply with the GPs ^{i, j, k}	No new construction, major renovations, and/or alterations occurred in 2013.	No new construction, major renovations, or alterations are planned for 2014.	Low
GOAL 3: Fleet Management				
3.1	10% annual increase in fleet alternative fuel consumption by FY 2015 relative to a FY 2005 baseline. (2013 target: 114% increase compared to 2005)	The 2013 interim target has been exceeded. E85 consumption during 2013 was 3,811 gallons. Compared to 2005 (which was zero but assumed to be 1 gallon), LM has exceeded this goal.	LM will continue to promote the use of E85 whenever possible to all GSA Fleet drivers.	Low
3.2	2% annual reduction in fleet petroleum consumption by FY 2020 relative to a FY 2005 baseline. (2013 target: 16% cumulative since 2015)	The 2013 interim target has been exceeded. The total fuel for 2013 was 26,180 gallons, and for 2005 it was 31,488 gallons. This was a 16.9% reduction in total fuel consumption from 2005. This exceeded the goal of a reduction of 16%. LM's Fleet calculated the conventional fuel reduction goal as 5.4% less conventional fuel use in 2013 compared to 2012. Normalized baseline figures are 470 gallons of conventional fuel per site based on 2005 figures and 67 sites supported. In 2013 LM's normalized figures went down to 290.9 gallons of conventional fuel per site for the 90 sites supported, for a total reduction of 38.1%.	LM will continue to encourage trip consolidation practices, telecommuting, and teleconference capabilities to help to reduce fleet petroleum use as much as possible.	Low

Table 1 (continued). DOE Goal Summary Table^a

SSPP Goal #	DOE Goal	Performance Status Through FY 2013	Planned Actions & Contribution	Risk of Non-attainment
3.3	100% of light duty vehicle purchases must consist of alternative fuel vehicles (AFVs) by FY 2015 and thereafter; and 75% of all vehicles will be AFVs by FY 2015 ^{l, m}	LM has met this goal. 100 percent of LM's light-duty fleet is AFVs.	LM will continue to replace light-duty conventional fuel vehicles with AFVs. LM's current light-duty fleet comprises 24 vehicles.	Low
3.4	Reduce fleet inventory of non-mission-critical vehicles by 35% by FY 2013 relative to FY 2005 baseline.	LM has met this goal. By the end of FY 2013, LM had reduced its non-mission-critical fleet vehicle inventory by 37 percent compared to FY 2005. In 2010 LM had 43 vehicles; in 2013 LM had 36 vehicles. This represents a reduction of 7 vehicles.	LM has no current plans to further reduce fleet in 2014. The number of LM sites has increased since the baseline year and will continue to increase. As the number of sites increase, additional travel and a subsequent increase in fleet vehicles are expected.	Low
GOAL 4: Water Use Efficiency and Management				
4.1	26% potable water intensity (gallons per gross square foot) reduction by FY 2020 compared to a FY 2007 baseline. (2013 target: 12%)	The 2013 interim target has been exceeded. LM reduced potable water use intensity by 82.7% in 2013 compared to the 2007 baseline, thus significantly exceeding the minimum water intensity reduction goal of 12% by the end of 2013. A water audit to verify metering conditions was performed at the Weldon Spring site in 2013.	LM will continue to track use and performance, and will plan projects to reduce water use intensity through improved use practices and water-efficient products. LM will continue to conduct water audits, assess water use, and identify additional water reduction and reuse opportunities.	Low
4.2	20% water consumption reduction of industrial, landscaping, and agricultural (ILA) water by FY 2020 compared to a FY 2010 baseline. (2013 target: 6%)	The 2013 interim target has been exceeded. LM reduced ILA consumption by 21.1% in 2013, significantly exceeding the interim ILA reduction goal of 6% by the end of 2013.	LM will continue to track use and performance, and will reduce ILA use through improved use practices and water efficient products. LM will continue to conduct audits, assess water use, and identify water reduction and reuse opportunities.	Low
GOAL 5: Pollution Prevention and Waste Reduction				
5.1	Divert at least 50% of nonhazardous solid waste, excluding construction and demolition debris, by FY 2015.	LM diverted 49.7% of nonhazardous solid waste in 2013. (Please see additional information notes in corresponding Consolidated Energy Data Report tab 9.1c for calculation details.)	LM is working to provide additional guidance to project managers on ways they can reduce or recycle nonhazardous solid waste. Efforts are also underway to refresh certain recycling stations for better participation.	Low

Table 1 (continued). DOE Goal Summary Table^a

SSPP Goal #	DOE Goal	Performance Status Through FY 2013	Planned Actions & Contribution	Risk of Non-attainment
5.2	Divert at least 50% of construction and demolition materials and debris by FY 2015.	LM diverted 55.5% of construction and demolition debris in 2013.	LM is working to provide additional guidance to project managers on ways they can reduce or recycle construction and demolition debris in their projects.	Low
GOAL 6: Sustainable Acquisition				
6.1	Procurements meet requirements by including necessary provisions and clauses (Sustainable Procurements/Biobased Procurements). ^m	100% of procurements contained sustainable acquisition provisions and clauses and met the requirements.	LM will continue to include Sustainable Acquisition wording in all solicitations and to require the purchase of sustainable goods and services.	Moderate
GOAL 7: Electronic Stewardship and Data Centers				
7.1	All data centers are metered to measure a monthly Power Utilization Effectiveness (PUE) of 100% by FY 2015. (2013 target: 80%).	The 2013 interim target has been exceeded. All LM data centers now have separate electrical metering for IT equipment.	LM will adjust as needed to comply with Federal Data Center Consolidation Initiative PUE standards.	Low
7.2	Maximum annual weighted average PUE of 1.4 by FY 2015. (2013 target: 1.60).	In 2013, The Legacy Management Business Center Data Center in Morgantown, West Virginia, and the Grand Junction, Colorado, Office Site Data Center both reported a PUE of 1.0, which is 60% better than the 2013 target PUE.	Insufficient data for satellite Data Centers. Will continue to monitor and adjust to target PUE.	Low
7.3	Electronic Stewardship - 100% of eligible PCs, laptops, and monitors with power management actively implemented and in use by FY 2012.	The FY 2012 goal of 100% implementation was met. In 2013, 100% of distributed systems conformed to target power management settings.	Continue to activate power management on any new eligible PCs, laptops, and monitors.	Low
GOAL 8: Renewable Energy				
8.1	20% of annual electricity consumption from renewable sources by FY 2020. (2013 target: 7.5%). ⁿ	The 2013 interim target has been exceeded. 25.9% of LM's energy usage came from renewable energy sources.	Feasibility of additional renewable energy generation capability on LM sites is being evaluated.	Low
Goal 9: Climate Change Adaptation				
9.1	Improve understanding of climate change effects, impacts, vulnerabilities, and risk and improve resiliency of all DOE sites. ^o	LM personnel have engaged directly in conferences and forums to improve understanding and identify applicability to LM operations. More specific climate change adaptation efforts have been proposed with regard to disposal cell sustainability.	Continue awareness efforts and further engagement with other agencies and organizations; review the National Climate Assessment for additional information on potential effects to LM sites; evaluate short-term and long-term disposal cell sustainability.	Low

Table 1 (continued). DOE Goal Summary Table^a

Notes:

- ^a The performance status reported in the SSP narrative crosswalks to the data provided in the Consolidated Energy Data Report (CEDR).
- ^b *Federal Greenhouse Gas Accounting and Reporting Guidance*, June 2012, http://www.whitehouse.gov/sites/default/files/microsites/ceq/revised_federal_greenhouse_gas_accounting_and_reporting_guidance_060412.pdf
- ^c *Guidance for Federal Agencies on Sustainable Practices for Designed Landscapes*, http://www.whitehouse.gov/sites/default/files/microsites/ceq/recommendations_on_sustainable_landscaping_practices.pdf?CFID=1129164&CFTOKEN=71705061
- ^d *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act*, http://www.epa.gov/owow/NPS/lid/section438/pdf/final_sec438_eisa.pdf
- ^e *Recommendations on Sustainable Siting for Federal Facilities*, http://www.fedcenter.gov/_kd/l/Items/actions.cfm?action=Show&item_id=15263&destination=ShowItem
- ^f Federal Buildings Personnel Training Act of 2010 – <http://www.gpo.gov/fdsys/pkg/BILLS-111s3250enr/pdf/BILLS-111s3250enr.pdf>
- ^g In accordance with National Energy Conservation Policy Act (NECPA) (42 U.S.C Section 8253) the term “buildings” includes industrial facilities, laboratory facilities, and industrial processes.
- ^h Former Secretary of Energy Dr. Steven Chu, “Installation of Cool Roofs on Department of Energy Buildings,” Memorandum for Heads of Departmental Elements, June 1, 2010.
- ⁱ DOE considers buildings meeting the following criteria as complying with GPs: (1) any building that achieves Leadership in Energy and Environmental Design - Existing Building (LEED-EB) Silver certification or higher, or LEED-New Construction (NC) Gold certification or higher; (2) any building that achieves a Green Globes NC rating of four or a Green Globes Continual Improvement of Existing Buildings (CIEB) rating of three; or (3) any building that has been occupied for more than 1 year that achieves Living Status designation by the Living Building Challenge. (Although included as policy in the DOE Strategic Sustainability Performance Plan, these equivalencies are contingent upon Office of Management and Budget and Council of Environmental Quality approval).
- ^j EISA Section 323. Final rule currently under development. See the “Performance and Standards for New Building and Major Renovations” section of the “Energy Independence & Security Act” webpage at <http://www1.eere.energy.gov/femp/regulations/eisa.html>
- ^k Volume 78 *Federal Register* pages 40945–40953, July 9, 2013, “Energy Efficiency Design Standards for New Federal Commercial and Multi-Family High-Rise Residential Buildings,” at <http://www.gpo.gov/fdsys/pkg/FR-2013-07-09/pdf/2013-16297.pdf>
- ^l The Energy Policy Act of 1992 goal was updated by Presidential Memorandum on Federal Fleet Performance on May 24, 2011. See <http://www.whitehouse.gov/the-press-office/2011/05/24/presidential-memorandum-federal-fleet-performance>
- ^m The Farm Security and Rural Investment Act of 2002 established the BioPreferred program to increase the procurement of biobased products. See <http://www.whitehouse.gov/the-press-office/2012/02/21/presidential-memorandum-driving-innovation-and-creating-jobs-rural-ameri>
- ⁿ DOE Draft Procurement Policy Guidance, *Purchase of Electricity, Energy Products and Energy By-Products from Indian Tribes*.
- ^o President’s Climate Action Plan – <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf>

Abbreviations:

AFV	alternative fuel vehicle
EISA	Energy Independence and Security Act
GP	Guiding Principle
GSA	U.S. General Services Administration
GSF	gross square feet
HPSB	high-performance and sustainable building
ILA	industrial, landscaping, and agricultural
PUE	power utilization effectiveness
SSPP	Strategic Sustainability Performance Plan

II. Performance Review and Plan Narrative

1 GHG Reduction and Comprehensive GHG Inventory

1.1 Scope 1 and 2 GHG Emission Reduction

The DOE Strategic Sustainability Performance Plan (SSPP) committed DOE to reducing its GHG Scope 1 and 2 emissions by 28 percent by 2020 compared to the 2008 baseline.

LM produced about 49.0 percent fewer Scope 1 and Scope 2 GHG emissions in 2013 than in 2008. Based on current annual GHG emissions, LM has met and expects to continue to meet the 28 percent reduction by 2020 goal.

In order to maintain the achievement of this goal, LM will continue to investigate ways to reduce GHG emissions. No energy audits were conducted in 2013.

1.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Purchased energy use decreased approximately 31.5 percent from 2008 to 2012 on the basis of 2013 data shown in tab 3.1 of the Consolidated Energy Data Report (CEDR). (Energy use is nearly proportional to GHG productions) Fugitive emissions are now considered a Scope 1 GHG. These data are included in tabs 6.1 and 6.2 of the CEDR. Fleet data from the Federal Automotive Statistical Tool (FAST) database is included in tab 10 of the CEDR. LM does not have any industrial processes that would require reporting in tab 6.3 of the CEDR.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

LM used 834.8 pounds of carbon dioxide (CO₂) compressed gas for well sampling in 2013 compared to 483.7 pounds in 2012. This increase is most likely related to a study conducted at the Mound, Ohio, Site for Operable Unit 1 to investigate replacing the pump-and-treat system with monitored natural attenuation as a long-term remedy for the residual volatile organic compounds in the groundwater. This was an extensive one-time sampling event that occurred over a 4-month period. It resulted in a large amount of sampling-related CO₂ emissions, which is not expected to recur. If monitored natural attenuation is approved as the remedy, it will reduce sampling-related CO₂ emissions due to fewer sampling events in the future.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM used 3,811 gallons of ethanol (E85) alternative fuel blend in 2013 compared to 0 gallons in the baseline year, 2005. In 2005 the guidelines for FAST were as follows: Estimate the total amount of fuel used in your alternative fuel vehicle (AFV) Fleet for the listed year. Include

conventional fuel and diesel and any alternative fuels in the estimate. All fuel consumed in E85-capable vehicles was reported in FAST as E85 fuel, although no E85 fuel was available in 2005 and 2006. Therefore, the numbers reflected in FAST for 2005 and 2006 are petroleum-based fuel, not E85.

LM's System Operation and Analysis at Remote Sites (SOARS) collects data from 19 sites in nine states and transmits the information to servers in the Grand Junction office site. SOARS use has enhanced the operation of active remediation systems and reduced the frequency of travel to LM's remote sites, thus conserving energy, protecting natural resources, and reducing GHG emissions.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO [Sustainability Performance Office]

In accordance with *Guidance for FY 2013 DOE Site Sustainability Plans* (August 2012), LM added fugitive emissions to Scope 1 GHG in 2012, including those caused by sulfur hexafluoride (SF₆). In 2009, LM surveyed its use of SF₆ and concluded LM was not using SF₆ or maintaining SF₆ in its inventory. In September 2012, through a review of procurement records, LM reexamined its use or storage of SF₆. In October 2012 the LMS operations manager confirmed that LM was not using SF₆ and would not likely use it in the future. Based on this information, the LM Energy and GHG team determined that another formal, SF₆ survey was not necessary.

Several changes made to CEDR tab 7.1a, "Onsite Wastewater Treatment," impacted Scope 1 fugitive emissions for 2013. Site subject matter experts provided new information that was used to update past and current CEDR entries. Updates included more complete and accurate systems representation for the Weldon Spring, Missouri, Site and the Fernald, Ohio, Site. The old wastewater treatment system at the Weldon Spring site was recategorized and added to past entries as applicable. Current and past entries were updated to reflect the Fernald Delta building septic system and the Fernald biowetland where applicable.

The Weldon Spring Interpretive Center and Fernald Preserve Visitors Center are both served by onsite wastewater treatment systems. To better align with Federal Greenhouse Gas Accounting and Reporting guidance, visitor numbers for those sites were included for the first time in 2013. Visitor logs from both sites were used to develop the 2008–2013 data profile.

These changes did impact the baseline and subsequent year emissions. The result was a greater reduction in emissions than anticipated. Adjustments to the onsite wastewater treatment data (CEDR tab 7.1a) affected the offsite contracted wastewater treatment data (CEDR tab 7.1b), also resulting in reductions to overall Scope 3 GHG emissions data.

1.1.2 Plans and Projected Performance

Discuss plans and expectations for 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM's expanding workload (the number of sites has increased since the baseline year and will continue to increase) is expected to require additional travel and groundwater monitoring and a corresponding increase in fuel use and GHG emissions.

LM will continue to replace inefficient process equipment and install electricity-saving control systems, as warranted, to achieve life-cycle cost and performance efficiencies.

LM will continue to pursue renewable energy projects if they are cost-effective.

LM will continue to promote the reduction of GHG emissions and provide financial support as necessary for inspections of chemicals and cylinders to reduce the potential for spills and leaks.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph "a." above, LM will pursue the following goals and milestones:

- Reduce fleet emissions by following better vehicle use guidelines and acquiring additional hybrid and flex-fuel vehicles.
- Pursue the use of biofuels to fuel AFVs and flex-fuel vehicles whenever biofuels are available.
- Continue to expand the use of SOARS, where cost-effective, to reduce vehicle mileage, reduce GHG emissions, and conserve natural resources related to traveling to take measurements or obtain readings. Potential expansion projects are (1) install instrumentation for a new groundwater treatment system at the Monticello, Utah, Disposal and Processing Site; (2) install additional instrumentation at the Bluewater, New Mexico, Disposal Site; and (3) install instrumentation at the Riverton, Wyoming, Processing Site.
- Collect and distribute building electrical metering data through SOARS to allow building staff and managers to monitor energy use in real time.

- Strive to adhere to the “Freeze the Footprint” guidelines by not increasing LM’s current office/warehouse space during 2014–2016. This may include setting standards for office size or configuration, reconfiguring current office space, sharing of office space, and concentrating employees in office space that costs less to maintain and reduces energy costs.

e. Request for technical assistance with reference to CEDR project number, if needed

None.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

1.2 Scope 3 GHG Emissions Reductions

According to Executive Order (EO) 13514, LM is expected to reduce its Scope 3 GHG emissions 13 percent by 2020, relative to a 2008 baseline. Currently, LM’s largest sources of Scope 3 GHG emissions are employee commuter travel, transmission and distribution losses, and business ground and air travel. Emissions from these sources are provided in the CEDR (tabs 3.1, 8.1, 8.2, and 8.3).

1.2.1. Performance Status

Scope 3 emissions are derived from employee commuting, business ground and air travel, transmission and distribution (T&D) losses, contracted (offsite) wastewater treatment, and contracted (offsite) municipal waste disposal. The status of each of these categories is discussed below. According to Scope 3 GHG calculations, LM has reached an estimated 24.3 percent reduction from the 2008 baseline, which significantly exceeds the 2013 interim goal of a 4 percent decrease as well as the overall goal of 13 percent reduction by 2020. The estimated percent reduction was derived from anthropogenic CO₂ emissions noted for T&D losses related to energy and water consumption, business and commuter travel, offsite wastewater treatment, and offsite municipal solid waste disposal (see CEDR tabs 3.1, 7.1b, 8.1, 8.2, 8.3, and 9.1b). Purchased renewable energy emissions are subtracted from these emissions, helping to offset total Scope 3 emissions (tab 3.2b). This estimated percent reduction was calculated using 2012 data as placeholders for the outstanding LM business travel data that DOE-Headquarters will be entering after the completion of this report.

a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals was formerly reported in LM’s annual Pollution Prevention Tracking and Reporting System (PPTRS) and is now reported exclusively in the CEDR (tabs 1.2, 3.1, 7.1b, 8.1–8.3, and 9.1b).

Employee Commuting

Commuter miles were calculated based on a commercially available, computer-based employee survey taken in 2011. The data is extrapolated based on the number of federal and contractor employees in 2013. Employee commuting mileage details are documented in tab 8.3 of the CEDR.

Business Ground and Air Travel

Contractor business ground and air mileage are tracked in the contractor's E-Expense accounting system. CO₂ emissions resulting from business air and ground travel are calculated in tabs 8.1 and 8.2 of the CEDR, respectively. CEDR tab 1.2 shows a 24.3 percent decrease at this time, but this calculation lacks the outstanding U.S. General Services Administration (GSA) business travel data points that SPO will be entering after the completion of this report. Emission amounts in 2012 for those areas were included in the preliminary calculation as placeholders for the forthcoming information. This is an estimated percent reduction calculated using 2012 data as placeholders for the outstanding LM GSA business travel data that SPO will be entering after the completion of this report.

T&D Losses

These losses are generally described as a fraction of emissions from multiple sites' energy and electrical systems. These data are calculated from the energy use data tracked by site on a monthly basis and summarized in tab 1.2 of the CEDR.

Contracted (Offsite) Wastewater Treatment

Offsite wastewater treatment data are based on the current number of federal and contractor employees located at sites with municipal wastewater treatment systems. This data is located in tab 7.1b of the CEDR.

Contracted (Offsite) Municipal Waste Disposal

Offsite municipal solid waste disposal data are collected by site on a quarterly basis and documented in a Microsoft Excel spreadsheet. These data are summarized in tab 9.1b of the CEDR.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

Employee Commuting

There were 422 LM and LMS employees in 2013. By percentages, the distribution of vehicle types and trends remained fairly consistent with the past year. CO₂ emissions related to employee commuting increased from the 2008 baseline of 838.5 metric tons to 1,095 metric tons in 2013, which was a slight increase over the 1,081 metric tons in 2012.

Business Ground and Air Travel

LM's mission is to manage post-closure responsibilities and ensure the protection of human health and the environment. Because of the nationwide distribution of LM sites, travel is an integral part of day-to-day LM activities. To reduce business travel to the extent practical, LM employees consolidate trips, use video and teleconferences instead of face-to-face meetings, travel only when necessary, and carpool when possible during business trips.

T&D Losses

In spring of 2013 a new 285-kilowatt (kW) photovoltaic solar electricity system was brought on line at the Tuba City, Arizona, Disposal Site. The existing photovoltaic system was 51 kW, contributing to a combined total of 336 kW of onsite solar electricity generation. With full sun, the system is capable of meeting the Tuba City site's daytime electrical requirements with excess supplied to the grid. Night operations still require utility-based electricity. This photovoltaic (PV) solar system helps reduce CO₂ emissions by reducing the amount of purchased electricity and associated T&D losses.

The Fernald site implemented significant upgrades to its electrical systems during 2012. These upgrades resulted in decreases in T&D losses during 2013. Additionally, DOE is partnering with its lessors to support energy efficiency improvements at several of its leased facilities, including Buildings 810 and 46 at the Grand Junction office site.

Contracted (Offsite) Wastewater Treatment

Sanitary wastewater from LM facilities is treated offsite, with the exception of onsite treatment systems at the Monticello, Fernald, and Weldon Spring sites. The calculation for this data is based on a standard number of workdays and the number of employees. Any water efficiencies realized from these systems are not part of this reporting section. For sites with onsite wastewater treatment, it decreases the amount of waste that would otherwise have to be sent offsite for treatment.

Contracted (Offsite) Municipal Waste Disposal

LM tracked its municipal solid waste, construction debris, and recycled materials on a quarterly basis. LM promoted recycling and reuse during project planning activities. Waste minimization is a mandatory part of contract language to ensure that all personnel working on LM projects reduce the amount of waste generated and recycle to the extent possible.

c. Sharing success stories, accomplishments, lessons learned, and best management practices

LM reduced Scope 3 GHG emissions by about 24.3 percent in 2013 from the 2008 baseline year. LMS staff members completed a course entitled *Scope 3 Indirect Greenhouse Gas Emissions: A Guide for Meeting DOE's FY 2020 Targets*, offered by the DOE National Training Center. The training was very informative and offered examples of successful Scope 3 GHG emissions reduction efforts at several DOE sites. LM and LMS employees are working to determine the applicability of suggested reduction efforts for LM sites.

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Employee Commuting

LM continued to promote carpooling, alternative work schedules, and periodic work-from-home opportunities for efficient use of time and resources. LM site-specific activities include frequent onsite luncheons sponsored by the Employee Association, as well as the availability of food deliveries, all of which reduce personal vehicle use during lunch periods.

Business Ground and Air Travel

LMS air-travel-related GHG emissions decreased by 27 metric tons in 2013 from 2012. LM reduced some business air travel in 2013 and utilized webinars to enhance job skills, as well as other seminars and training sessions provided by federal and state agencies and educational institutions. In 2013, LM conducted its annual EMS Management Review via videoconferencing, which significantly reduced travel. Forty-five individuals participated from six different locations.

The 2013 DOE Property Management Workshop was hosted as a virtual conference in May 2013. Over 11 LM and LMS employees attended via video and teleconferencing, significantly reducing travel for that particular workshop.

T&D Losses

LM continues to upgrade antiquated systems and increase efficiencies at LM sites where feasible. T&D losses have decreased relative to 2012 by 16.46 percent and have decreased from the 2008 baseline by 34.97 percent. The Tuba City site, which hosts one of the largest LM-site treatment systems, increased onsite solar power production capacity by 6 times over 1 year, from 51 kW to 336 kW, with a new solar photovoltaic system. (The treatment plant did not operate during part of 2013, which reduced its benefits for the year.) The solar photovoltaic system reduces purchased energy use and CO₂ emissions, including T&D losses, by more than 10 percent annually.

Contracted (Offsite) Wastewater Treatment

LM's 2013 CO₂ emissions from offsite wastewater treatment increased slightly from 2012 (a difference of 0.055 metric ton anthropogenic CO₂) and remained higher than the 2008 baseline. Anthropogenic CO₂ increased from 0.985 metric ton in 2008 to 1.811 metric tons in 2013, most likely because the number of LM employees serviced by offsite wastewater treatment systems increased from 2008 to 2013 by 83 percent.

Contracted (Offsite) Municipal Waste Disposal

In 2013, LM achieved a total of 49.7 percent solid waste diversion and a 55.5 percent diversion of construction debris from landfills. LM continuously promotes recycling and reuse during project planning activities.

The LM Waste Minimization and Pollution Prevention (WMP2) team began a pollution prevention opportunity assessment (PPOA) on the Building 12A demolition at the Grand Junction office site to pilot the effectiveness of new waste minimization guidance for construction debris. The PPOA will be completed in 2014 when the demolition is complete. Reuse and recycle quantities for such materials as appliances, fixtures, metals, concrete, R-22 refrigerant, lamps, and many other items are being tracked as part of this assessment.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating, and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

Employee Commuting

LM employees were surveyed in 2012 about their commuting choices to and from the workplace. The 2012 survey was not structured to gather all pertinent data, so 2011 survey data and 2012 survey data were integrated so that commuter vehicle types could be included. A percentage distribution by vehicle type was calculated to incorporate the current number of LM employees into the survey data.

Business Ground and Air Travel

SPO requested a review and update of several entries in CEDR tab 8.2 related to ground travel. LM made several adjustments based on this review, by reducing the mileage for 2008 (baseline) and 2010 to include only the contractor. During the review, LM noticed that several other entries had been changed by SPO. As a result of a subsequent discussion with SPO to clarify the entries, it was agreed that one of the 2008 (baseline) entries for federal employee mileage was in error and could be removed from the tab. Finally, the entry for 2013 federal employee mileage is a placeholder reflecting the mileage for the previous year; this was suggested by SPO since the true mileage will be provided by SPO at a later date. These changes and explanations are all highlighted in blue on CEDR tab 8.2 and will result in changes to the previously reported baseline and goal trend.

Contracted (Offsite) Wastewater Treatment

LM updated information on CEDR tab 7.1a, "Onsite Wastewater Treatment," which resulted in decreases to the total number of people serviced by offsite wastewater treatment. See Section 1.1.1d and notes in CEDR tabs 7.1a and 7.1b for respective changes and details.

1.2.2 Plans and Projected Performance

Discuss plans and expectations for 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

Employee Commuting

LM will continue to encourage employees to carpool and use public transportation to the extent possible. LM will also work to increase telecommuting options through mutual alternative work

agreements that are designed to reduce commuting days, thereby reducing fuel use and emissions.

LM is developing a new commuter survey for 2014 based on (1) information in the *Consolidated Energy Data Report (CEDR) Technical Support Document (TSD)*, also known as the CEDR Technical Support Document, and (2) ideas gained from the GSA Commuter Survey Tool that is part of the larger GSA Carbon Footprint Tool.

Business Ground and Air Travel

LM will continue to use teleconferencing services and virtual-presence software to conduct meetings and will continue to reduce business travel to the extent practical.

Where feasible, LMS personnel will share business rental cars while attending out-of-town meetings and events. LMS demonstrated this in the planning process for the 2014 LMS Managers' meeting. The meeting was eventually cancelled, but similar planning considerations are expected to occur for other occasions.

T&D Losses

Future efficiencies gained through routine and nonroutine upgrades of electrical systems and heating, venting, and air-conditioning (HVAC) systems at several LM sites will continue to reduce T&D losses and, subsequently, CO₂ emissions.

Contracted (Offsite) Wastewater Treatment

If the number of employees at sites serviced by offsite wastewater treatment continues to increase, these emission totals will also continue to increase. It is likely that the workforce size will remain the same or increase slightly during 2014 and the following years.

Contracted (Offsite) Municipal Waste Disposal

- Excess materials will be donated or recycled. These actions and other ongoing recycling efforts will continue to support the reduction of CO₂ emissions from landfills.
- Annotated draft guidance for solid waste diversion strategies is currently under pilot implementation by the Waste Minimization team. It is expected that, once finalized, this guidance will result in further municipal, industrial, and hazardous waste reductions.
- A PPOA was initiated during the planning process for the demolition of Building 12A at the Grand Junction office site. The PPOA will be completed once the project concludes in spring of 2014. These efforts are expected to increase diversion of solid waste and construction debris.
- LM will be reviewing the recycling and composting programs at select sites for potential improvement opportunities.

Emissions from Fully Serviced Leases (Voluntary for FY 2014)

Expected growth in the number of employees at the Westminster, Colorado, Office Site might increase the emissions for that building.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

Employee Commuting

Conduct a 2014 Commuter Survey. Information gathered from the survey will be used to identify opportunities for new initiatives in this area. LM will also continue to explore mutual alternative work schedule agreements.

Business Ground and Air Travel

Encourage teleconferencing and the use of virtual-presence software to reduce business travel to the extent practical, and explore tracking and reporting tools that could provide additional return on investment metrics.

T&D Losses

Perform energy intensity audits to identify system modifications or equipment replacements that could increase energy efficiency. System modifications planned for the Fernald and Tuba City sites will help increase energy efficiency, reducing T&D losses and CO₂ emissions.

Contracted (Offsite) Wastewater Treatment

Improve or replace the onsite wastewater treatment system at the Weldon Spring site to eliminate the need to send waste offsite for treatment, thus reducing emissions in this area.

Contracted (Offsite) Municipal Waste Disposal

Complete the Grand Junction office site Building 12A demolition PPOA.

Pilot-test the draft LMS *Guidance for Implementing Solid Waste and Construction Debris Diversion Strategies* on at least two LM projects other than the Building 12A demolition project and use the results to finalize the guidance document.

Determine whether third-party composting is feasible at the Grand Junction office site.

Determine feasibility of expanding the composting program at the Fernald site. The Fernald personnel will prepare a Fernald Compost Management Plan in 2014.

Emissions from Fully Serviced Leases (Voluntary for FY 2014):

Prepare a baseline for future consideration of fully serviced leases.

e. Request for technical assistance with reference to CEDR project number, if needed

None.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

2 Buildings, Energy Savings Performance Contract (ESPC) Initiative Schedule, and Regional and Local Planning

2.1 Energy Intensity Reduction

The National Energy Conservation Policy Act (NECPA), as amended by the Energy Independence and Security Act (EISA) in 2007, requires DOE to reduce its energy intensity by 30 percent by 2015 from a 2003 baseline.

2.1.1 Performance Status

a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in tab 1.2 of the CEDR. Also, see tab 2.1 of the CEDR for 2013 training information.

LM's current energy intensity, based on its 2013 data calculated in tab 1.2 of the CEDR, is 400,898 British thermal units per gross square foot (Btu/GSF). This figure is a 55.6 percent increase compared to the 2003 baseline of 257,137 Btu/GSF (Table 2).

Table 2. LM Energy Consumption

	DOE Goal FY 2015 (Btu/GSF)	FY 2003 (Btu/GSF)	FY 2008 (Btu/GSF)	FY 2009 (Btu/GSF)	FY 2010 (Btu/GSF)	FY 2011 (Btu/GSF)	FY 2012 (Btu/GSF)	FY 2013 (Btu/GSF)
Energy with RECs	178,208	257,678	636,748	236,202	204,311	266,135	288,371	400,898
Gross Square Feet		3,215,306 ^c	26,374	72,206	114,797	71,629	71,015	37,640

Notes:

All values denote the site-delivered energy, not the source energy.

Abbreviations:

REC = Renewable Energy Certificate

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

LM excludes several buildings from the energy intensity goal. These buildings are fully serviced leased spaces, meaning that the lessor pays the utilities.

Attachment B includes the final Facility Information Management System (FIMS) excluded building list and certification letter.

A major distinguishing factor for LM is that most of the energy is used in other structure and facility (OSF) processes that are not related to buildings, such as the 23 large extraction wells at the Fernald site (which consume more than 65 percent of the power used by LM). However, a project is planned to be completed mid-2014 that will provide dedicated meters for the Fernald well field. This will allow LM to use the EISA Exclusion G, which allows mission-related energy use (that is separately metered and reported annually) to be excluded from the energy intensity calculation.

In 2013, LM excluded mission-related energy processes at the following sites: Monticello, Shiprock, New Mexico, Disposal Site; Weldon Spring, and Tuba City. These systems are separately metered and fit the criteria for Exclusion G.

LM demolished the Weldon Spring Administration Building in September 2012. This reduced the building square footage used in the denominator of the energy intensity calculation by almost 50 percent in 2013. This resulted in an increase in the calculated energy intensity use in 2013.

The Tuba City site plant is the second largest energy user for LM and operated about 50 percent of the time in 2013. After several maintenance shutdowns, a major maintenance overhaul was performed on the water treatment system in early FY 2013. The subsequent restart of the Tuba City site water treatment plant raised electricity use to previous levels, and the system has been performing much better since then.

The solar thermal system at the Tuba City site, which provides heated water to the water treatment system, was installed in 2009. The solar thermal system was not operational in 2013 because of a control system malfunction and other maintenance activities not related to problems with the water treatment system described above. The control system has been repaired and the solar thermal system is expected to be operational in 2014.

The data center previously located in Building 12A (6,757 GSF) at the Grand Junction office site was relocated to a smaller, newly renovated space (Building 46, 3,970 GSF) in 2013, thereby reducing the data center's leased footprint. By consolidating the office space into a smaller, more efficient footprint and using the existing campus infrastructure such as utilities, parking, security, bike racks and showers, this building has maximized the use of available resources while maintaining the critical requirements needed for a data center.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Upgrading antiquated systems and increasing efficiency at LM sites were primary objectives during 2013. Reductions in overall electrical consumption at LM sites totaled 28.8 percent

compared to the 2008 baseline and 11.8 percent compared to 2012. In addition, the following activities contributed to reducing energy intensity:

Best Management Practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM continued to use best management practices for energy reduction, such as setback HVAC controls, at several locations.

LM developed policies to revise the methods for computer backups and instituted operating-system updates to help reduce electrical energy use.

The LMS contractor has implemented employee incentive programs to reward exceptional individual and team performance in increasing energy efficiency and water conservation, deploying renewable energy, minimizing waste, reducing utility costs, and reducing GHG emissions.

Selected LM managers have results-based energy management as a component of their performance evaluations.

Benchmarking

Several LMS personnel attended training webinars in preparation for the July 2013 release of the Energy Star Portfolio Manager's new interface.

Utility data for benchmarking LM facilities is entered quarterly into Energy Star Portfolio Manager.

Space Management

There was further server reduction via consolidation to virtual machines, continuing the effort that started in 2009. Virtualization allows for one physical server to virtually perform the function of up to 10 individual servers, which results in a reduction in direct power use. It also results in a reduction in server cooling needs, which typically consume a significant amount of energy.

Certified Energy Managers/Training

One staff member is a certified energy manager and took required training during the year to maintain the certification.

Training on energy conservation and recycling is already embedded in the periodic EMS sustainability training provided to LM employees. The LMS contractor has included this information in their employees' orientation programs.

Selected personnel at each site were given training specific to energy and water management programs and will dedicate all, or a substantial portion, of their time to the effective implementation of energy and water management plans.

Deferred Maintenance

Deferred maintenance for energy consuming buildings/facilities is identified every 5 years through the Condition Assessment Surveys (CASs) required annually by DOE Order 430.1B. The most recent cycle of assessments for LM occurred in 2012/2013. Deferred maintenance identified in these assessments will be addressed prior to the end of 2018, pending funding availability.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating, and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

LM expects to meet the energy intensity goal of a 30 percent reduction by 2015 because of the following conditions:

- Most of LM's energy consumption is for mission-related systems that are not buildings, such as the 23 large extraction wells for remediation at the Fernald site, which consume over 65 percent of total LM energy use. Several mission-related energy intensive processes were excluded this year and activities are underway to allow exclusion of the Fernald wells. If approved, this reporting change should allow LM to come closer to meeting the 30 percent reduction goal for energy intensity.

2.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

Tab 3.3 of the CEDR lists projects that, if implemented, could reduce energy intensity by more than 30 percent by the end of FY 2015. Energy conservation efforts are focused on the two largest energy consumers: mission-related operational systems at the Fernald site and the Tuba City site. These groundwater remediation sites offer the most opportunity for energy conservation. A new control system for the Fernald well field, scheduled to be installed in the spring of 2014, will include individual metering of the wells; (the wells are not now individually metered). It is expected that this meter data, along with an EISA exemption that allows metered mission-related processes to be excluded from the energy intensity calculation, will allow LM to meet the 30 percent reduction goal, since the Fernald well field uses over 65 percent of all power consumed by LM. The table below shows the effect of removing the Fernald well field energy usage from the FY 2013 energy intensity calculation.

Table 3. LM Energy Intensity Comparison with and Without Fernald Wells

Item	Btu/yr (millions)	Square feet (thousands)	Energy Intensity (kBtu/ft ² /yr)	LM Energy Intensity: FY 2003 Baseline	Percent Change in Energy Intensity Compared to FY 2003 Baseline
Actual FY 2012 LM Total Energy Used	20,479	71	288,371	257,678	11.9%
Actual FY 2013 LM Total Energy Used	15,090	38	400,898	257,678	55.6%
Actual FY 2013 Fernald Wells Energy Used	11,817	38	N/A	N/A	N/A
Projected FY 2014 LM Energy Used Without Fernald Wells	3,272	38	86,132	257,678	-66.6

Notes:

All values above denote the site-delivered energy, not the source energy.

Btu = British thermal units

ft² = square feet; square foot

kBtu = thousand Btu

N/A = not applicable

yr = year

b. Expected site contribution to the DOE goal(s)

LM is expected to meet the energy intensity goal by 2015 when the Fernald well field will have been metered for a full year and the well field energy usage will be excluded.

c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Replace oversized, inefficient groundwater extraction pumps at the Fernald site, as warranted by normal equipment failure.
- Investigate updating the water treatment technology at the Tuba City with more efficient systems that reduce the energy use.
- Continue to use best management practices for energy reduction at several locations, such as installing setback HVAC controls, using benchmark utilities in Energy Star Portfolio Manager, installing meters, and performing assessments and verifications.
- Continue to assess energy reduction as a factor in the decision process for maintenance and repairs. This includes identifying opportunities and checking status on deferred maintenance for energy consuming buildings/facilities every 5 years via the CAS required annually by DOE Order 430.1B.

- Continue to train additional employees. Employees will continue to attend energy related workshops or symposiums to enhance their current knowledge base and maintain certifications.

e. Request for technical assistance with reference to CEDR project number, if needed

Assistance from SPO and the Federal Energy Management Program (FEMP) may be needed to help determine if baseline data have been identified correctly. The historical data used for the baseline may be incomplete and need to be reevaluated. Since the baseline data might not reflect true energy intensity at that time, the percent change might not reflect the actual trend.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

2.2 EISA Section 432 Energy and Water Evaluations

2.2.1 Performance Status

a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

LM conducted a water audit to assess water metering conditions at the Weldon Spring site in 2013. No energy audits were conducted in 2013. Performance related to these goals was reported in the Compliance Tracking System for June 2013, and in tabs 2.1 and 11 of the CEDR.

b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

When feasible, water and energy audits are completed during regularly scheduled site inspections or a CAS. The selection of audited sites is rotated to ensure that 100 percent of covered sites are audited every 4 years to meet the requirements of EISA Section 432.

d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating, and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

2.2.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM will continue to rotate selection of audited sites to ensure that 100 percent of the sites are audited every 4 years to meet the requirements of EISA Section 432.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

Conduct two water audits between July 2014 and June 2015. The proposed locations are the Grand Junction, Colorado, Disposal/Processing Site and the Old Rifle, Colorado, Processing Site.

Perform energy audits for Monticello site and the Monument Valley, Arizona, Processing Site before the end of the calendar year and for the Tuba City and Shiprock sites in FY 2014.

Continue to benchmark EISA-covered facilities in Energy Star Portfolio Manager.

Improve process for performing measurement and verification of implemented energy saving measures and projects.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

2.3 Metering

The NECPA, as amended by the Energy Policy Act (EPAAct) of 2005, requires installation of electrical meters by 2012 on all individual buildings with the use of advanced electrical meters to the maximum extent practicable. EISA 2007 added a requirement that all appropriate buildings must also be metered for steam and natural gas by 2016.

The DOE SSPP requires installation of electrical meters on individual buildings or processes so that these individually metered buildings and processes account for at least 90 percent of a site's total electricity use by October 1, 2012. Ninety percent of appropriate buildings must be metered for steam, natural gas, and chilled water by October 1, 2015.

To the maximum extent practical, LM will install metering devices (either advanced or standard) in each building, in other facilities, and on site grounds to measure electricity and natural gas use. LM does not use steam or chilled water, so plans to meter these utilities are not required. While metering of potable water is not required, LM will continue to meter potable water as a best management practice, where it is cost-effective.

2.3.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Of the EPAAct 2005 appropriate buildings, 100 percent are metered for electricity, and 100 percent of buildings with natural gas usage are metered. However, most of LM energy is consumed by processes not associated with buildings. DOE Metering Guidance of June 30, 2011, states, "Install electricity meters on individual buildings or processes at each site so that these individually metered buildings and processes account for at least 75 percent of the site's total electricity use by October 1, 2011, working toward a goal of 90 percent by October 1, 2012." Therefore, mission-related metered electric processes were included in the appropriate building count in 2013. As shown in tab 2.1 of the CEDR, 29.4 percent of LM electricity usage was metered in 2013. With the installation of metering on the LM well field in mid-2014, 72.7 percent of LM electricity usage will be metered in 2014, with 99.1 percent metered in 2015 and after.

LM has no steam or chilled-water systems. All of the appropriate EPAAct 2005 buildings are metered for potable water. Performance related to these goals is reported in the FIMS database and in tab 2.1 of the CEDR.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

Electrical

In 2013, LM approved plans and funding to install a new control system, including individual metering, for the Fernald well field. This should allow LM to reach the goal of metering 90 percent of the total energy used after one year of metering.

Advanced electrical metering has been installed at three sites:

- The Fernald Preserve Visitors Center meter was connected to SOARS for data storage and trending.
- Advanced meters were installed on the new 285 kW PV system at the Tuba City site.
- Advanced meters were installed on the Weldon Spring Programmatic Storage (lab) building, office trailers, and the wastewater treatment plant.

Water

No major initiatives or changes affected this goal.

Gas

No major initiatives or changes affected this goal.

Steam and Chilled Water

LM has no steam or chilled-water systems, so metering is not applicable for LM.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM prepared and issued a metering plan to achieve sustainability goals. In addition, LM identified budgeting needs for 2014 as well as 2015 through 2019. LM uses metering information for benchmarking, reporting, system diagnostics and maintenance, and measurement and verification of savings.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

2.3.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

In 2013, LM approved plans and funding to install a new control system, including individual metering, for the Fernald well field. This should allow LM to reach the goal of metering 90 percent of the total energy used.

- b. Expected site contribution to the DOE goal(s)

LM did not to meet this goal by October 2012.

In the future, the planned new control system at the Fernald well field will allow LM to reach the goal of metering 90 percent of the total energy used.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

Evaluate utility (electrical and water) information that is being benchmarked in Energy Star Portfolio Manager.

Electrical

Upgrade the control system, including individual metering, for the Fernald well field in the spring of 2014. This should allow LM to reach the goal of metering 90 percent of the total energy used.

Water

Install two separate water meters at the Tuba City site; one each on the Control and Shop/Lab buildings.

Gas

No additional actions are planned.

Steam and Chilled Water

LM has no steam or chilled-water systems, so metering is not applicable.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

2.4 Cool Roofs

LM will enhance the overall building thermal performance for all new construction and roof replacements, as warranted, by using cool roofs. The cool roofs shall have a thermal resistance of at least R-30, consistent with former Secretary of Energy Chu's June 1, 2010, memorandum about installation of cool roofs.

2.4.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

LM is using the FIMS database to track cool-roof types and total cool-roof GSF.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

2.4.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning [D&D], policy and procedures updates, training) and expected impact of planned activities

LM will continue to perform cool-roof assessments as necessary and strive to make all new roofs and replacement decisions in compliance with former Secretary Chu's goal and economic feasibility. These assessments will be coordinated with the scheduling of CASs.

- b. Expected site contribution to the DOE goal(s)

LM will plan to meet this goal, as activities warrant.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Strive to make all new roofs and replacement decisions in compliance with former Secretary Chu’s goal and economic feasibility.
 - Coordinate cool-roof assessments with the scheduling of a CAS to reduce travel expenses, labor costs, and GHG emissions. The data collected will include the slope and gross square footage of the existing roof, the type of roof structure, roofing material and insulation specifications, the age of the building, and the dates of any replacements or repairs. Information regarding deficiencies, deferred maintenance, or any other pertinent history relating to life-cycle cost analysis will also be recorded during these assessments.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

An awareness article about cool roofs is being developed for publication in FY 2014. The article will help with the process, analysis, and decision-making if a cool roof (new or replacement) becomes a potential project for an LM existing building or new construction. This article also will be a reference to further explain and provide resources for key topics such as cost analysis, materials, energy savings, building codes, and incentives when a roof replacement or new roof is being considered for any of LM’s existing or new-construction buildings.

2.5 Existing High-Performance and Sustainable Building (HPSB) Buildings

Section 4.a of DOE Order 436.1 states, “Comply with the sustainability requirements contained in EO 13423...and EO 13514...” EO 13514 and the DOE SSPP clarify the goal to be 15 percent of the number of existing buildings and building leases—not square footage—and that only buildings greater than 5,000 GSF are subject to the goal. The 15 percent requirement in EO 13514 and the DOE SSPP must be met by 2015. EO 13514 and the DOE SSPP stipulate that progress must continue toward 100 percent compliance for the entire building inventory that is greater than 5,000 GSF.

2.5.1. Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in CEDR tab 3.4 and in Energy Star Portfolio Manager.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

Existing Buildings

With the completion of improvements to the leased Delta Building at the Fernald site and Building 810 at the Grand Junction office site, LM has exceeded the HPSB Guiding Principles (GPs) compliance goal of 15 percent. Currently 37.5 percent of LM's existing buildings greater than 5,000 GSF meet the GPs. See leased buildings for additional information.

Leased Buildings

Upgrades to the Delta building at the Fernald site and Building 810 at the Grand Junction office site allowed these two buildings to meet the HPSB GPs in FY 2013. LM has now exceeded the goal with 37.5 percent compliance with HPSB GPs. Buildings 12 and 938 at the Grand Junction office site have been undergoing energy efficiency improvements that are nearing completion. These buildings, 12 and 938, are on track to meet 100 percent of the HPSB GPs by the end of FY 2014.

Energy conservation measures completed in FY 2013 at the Delta Building at the Fernald site included replacing metal siding with cool metal siding, replacing exterior doors with better-insulated doors, upgrading exterior lighting to light-emitting diode (LED) fixtures, and adding cellular insulated blinds to the windows. The building met 100 percent of the HPSB GPs and received an Energy Star certification. Its Energy Star score of 85 means it performs better than 85 percent of similar buildings nationwide and meets strict energy performance standards set by the U.S. Environmental Protection Agency.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Reutilized office furniture from another federal facility (i.e., the National Renewable Energy Laboratory [NREL]) has been used to accommodate the growing office-space occupancy at the Westminster office site. Insulated blinds were installed on western-facing windows to reduce glare and heat gain.

Three rooftop mechanical units at the Weldon Spring Interpretive Center were replaced due to tornado-related damage. The new units are Energy Star rated and more energy efficient than the older units.

The data center previously located in Building 12A (6,757 GSF) at the Grand Junction office site was relocated to a smaller, newly renovated space (Building 46; 3,970 GSF) in FY 2013, thereby reducing the data center's leased footprint. The lease for Building 12A will be terminated in FY 2014. This will reduce the number of buildings and total square footage in the HPSB inventory.

LM developed "HPSB GP Occupant Training" in 2013. This training will be used by facility managers to inform the building occupants of the general purposes of the HPSB GPs. The training shows occupants how they can support the GPs by becoming knowledgeable about specific sustainable aspects of the building and ultimately contribute to creating a better workplace.

FEMP's ESPC ENABLE initiative was investigated as a source of funding for energy-efficiency improvements at the Interpretive Center at the Weldon Spring site. After further research, it was decided that any improvements made would not achieve the paybacks necessary to make this a viable ENABLE project.

HPSB assessment checklists for all owned and leased buildings greater than 5,000 GSF are updated annually, and any changes affecting a building's compliance score are noted. These checklists and accompanying documentation are maintained and updated regularly in Energy Star Portfolio Manager. Utility data is updated on a quarterly basis.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating, and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

2.5.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM will continue to monitor its building inventory, and will identify and evaluate owned or leased buildings that measure greater than 5,000 GSF and are transitioning to or from LM by 2015. LM will continue to pursue meeting 100 percent of the GPs in the remaining buildings greater than 5,000 GSF.

Efforts will continue on the two remaining leased buildings 938 and 12 at the Grand Junction office site to have them meet the GPs. The status for meeting the GPs in the Interpretive Center at the Weldon Spring site has been reprioritized. There are no GP activities planned in 2014 for the Weldon Spring Interpretive Center.

b. Expected site contribution to the DOE goal(s)

LM exceeded this goal.

As of September 30, 2013, the Delta Building at the Fernald site and Building 810 at the Grand Junction office site met the HPSB GPs. Those two buildings and the Visitors Center at the Fernald site bring LM up to 37.5 percent compliance with the DOE goal.

Two remaining targeted buildings, Building 938 and Building 12 at the Grand Junction office site, are 96 percent compliant with the GPs. Those two buildings are on track to be 100 percent with the HPSB GPs by the end of FY 2014. At that time, LM is expected to be 62.5 percent compliant with the DOE goal.

c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- As a measure of good practice, continue to be proactive in supporting buildings that are undergoing energy-efficiency improvements but that (based on square footage and/or construction costs) do not fall under the requirements of either the HPSB GPs or the third-party certifications described in Goal 2.6 of Table 1. Continue tracking utilities in Energy Star Portfolio Manager and make comparisons to baseline figures to demonstrate improvements in energy and water usage or, if necessary, address areas in need of improvement.
- Create a master Excel spreadsheet to be used for benchmarking utilities in LM-owned and leased buildings and other facilities in Energy Star Portfolio Manager. The spreadsheet will also be used for sharing information with other EMS sustainability Teams as necessary, for reporting, and for analyzing energy and water utility data.
- Continue to pursue meeting 100 percent of the GPs in the remaining buildings greater than 5,000 GSF. HPSB assessment checklists will be updated annually, and any changes affecting a building’s compliance will be noted. These checklists, utilities, and supporting documentation will be maintained and updated regularly in Energy Star Portfolio Manager. Data from these checklists will be used for FIMS reporting purposes (e.g., data calls) and to respond to requests from DOE-Headquarters.

e. Request for technical assistance with reference to CEDR project number, if needed

None.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

LM has been developed “HPSB GP Building Occupant Training” to assist individual facility managers of buildings that have undergone energy improvement projects. The training will assist the facility managers in instructing building occupants on the day-to-day use of any new equipment, systems, and the building itself (e.g., windows, shades) and provides contact information for addressing concerns or problems with equipment or the building. The training is currently available for trainees. The training will be updated if additional sustainable improvements are made, and will be given on an as-needed basis. As part of the Federal Buildings Personal Training Act implementation, various LM/LMS employees will be reviewing and updating their competencies in multiple areas including sustainability.

2.6 High-Performance Sustainable Design

To address the requirements in the DOE SSPP, LM has made a commitment to pursue DOE recommendations for third-party certifications and incorporate the GPs into the construction of future buildings, as addressed in the following sections.

HPSB New Construction

EO 13514 Section 2(g)(ii) states “that all new construction, major renovation, or repair and alteration of Federal buildings complies with the *Guiding Principles for Federal Leadership in High Performing and Sustainable Buildings ...*” The DOE SSPP elaborates: “All new construction, major renovations, and alterations of buildings greater than 5,000 GSF must comply with the Guiding Principles [GPs] where the work exceeds \$5 million, each are Leadership in Energy and Environmental Design-New Construction (LEED-NC) Gold certification.” All buildings below the \$5 million threshold but greater than 5,000 GSF are required to comply with all of the GPs. Third-party certification criteria is discussed further in the DOE SSPP.

To address these requirements, LM has made a commitment to pursue the criteria stated in Goal 2.6 of Table 1, and to incorporate the HPSB GPs into the construction of future buildings, as addressed in the following sections.

2.6.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

New construction is located in tab 3.4 of the CEDR. No new construction was conducted in FY 2013.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

2.6.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

No new-construction buildings or major renovations that fit the criteria of the requirements are planned.

- b. Expected site contribution to the DOE goal(s)

LM will pursue attainment of this goal if a new building is scheduled for construction. LM currently has no new buildings scheduled for construction

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

No new-construction buildings or major renovations that fit the criteria of the requirements are planned.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

2.7 Regional and Local Planning

According to the DOE SSPP, DOE is to pursue the following actions:

- Participate in regional transportation planning, recognition of existing community transportation infrastructure, and incorporation of such efforts into site policy and guidance documents.
- Ensure that planning efforts for new federal facilities or new leases will include consideration of sites that are pedestrian-friendly, are near existing employment centers, are accessible to public transit, and emphasize existing central cities and, in rural communities, existing or planned town centers.
- Identify and analyze impacts from energy use and alternative energy sources in all Environmental Impact Statements and Environmental Assessments for proposals for new or expanded federal facilities under the National Environmental Policy Act of 1969, as amended (Title 42 *United States Code* Section 4321 et seq. [42 U.S.C. 431 et seq.]).
- Coordinate efforts with regional programs for federal, state, tribal, and local ecosystem, watershed, and environmental management.
- Identify (1) regional transportation planning, ecosystem, watershed, and environmental management initiatives affecting sites and (2) opportunities to work with local authorities to align energy policies and locate renewable energy infrastructure.
- Continue efforts to assess the State of interaction between sites and their respective local or regional organizations and steps to increase interaction.

LM has ongoing activities at more than 90 post-closure sites located in 28 states and Puerto Rico. Due to the relatively small number but wide geographic separation of employees, LM expends less effort on transportation and facility or infrastructure planning than programs with sites in heavily populated areas. Rather, more of LM's local and regional planning efforts are focused on ecosystem, watershed, and environmental management. LM recognizes that such legacy activities are local and that stakeholder involvement is integral to the success of LM operations. LM also makes considerable effort to educate future generations on the historical aspects of the Cold War activities, the enduring environmental impacts of those activities, and how site cleanup can be performed sustainably.

2.7.1 Overall Efforts

Efforts to Promote Reuse of Assets

In July 2013, the International Atomic Energy Agency (IAEA) sponsored an LM consultation in Vienna, Austria, to assist in the initial planning for an IAEA Technical Document to provide guidance to countries needing to reduce health risks at small abandoned uranium mines. LM drafted a case study of the detailed technical processes used for reclaiming small abandoned uranium mines on DOE uranium lease tracts in the U.S. In addition, LM helped IAEA create the draft outline for the Technical Document, plan the next consultancy visit and objectives, and advised on other countries that may have case studies to share. The initial consultation included the U.S. (represented by LM) and a representative from the Wismut Company in Germany. The consultation resulted in both LM and Wismut representatives being asked to return in November 2013 to continue the planning process with IAEA. As funding for this IAEA effort

extends through 2015, it is likely that LM will support IAEA during visits to some of the specific countries requesting this type of support.

In addition, LM continued to serve as part of the steering group for the IAEA Initiative “Regulatory Supervision of Legacy Sites (RSLs).” In this capacity, LM is working on a Technical Document that will include approaches to Safety Assessments and Environmental Impact Assessments that would be appropriate for legacy sites (i.e., abandoned and contaminated sites) as opposed to licensed facilities that are to undergo decontamination and decommissioning. In addition, LM has been developing an approach of “phased remediation” of legacy sites where there are insufficient resources to complete the remediation of a site at one time. This work will continue in 2014, which will be the last year of Phase I of the RSLs Initiative.

Transportation/Facility/Renewable Energy Planning

Many of the LM sites are unstaffed or have only a few people working onsite. In addition, several of the staffed sites are in remote locations where public transportation is not available. For these reasons, LM is not currently participating in regional transportation planning.

LM’s mission is to manage post-closure responsibilities and to ensure the future protection of human health and the environment. Currently, LM is responsible for approximately 65,018 acres of land at 90 sites located in 28 states and Puerto Rico. Between now and FY 2020, LM will receive approximately 40 more sites for long-term care. In accordance with U.S. Office of Management and Budget (OMB) Memorandum M-12-12, “Promoting Efficient Spending to Support Agency Operations,” Section 3, “Real Property,” LM will need to utilize existing office locations as much as possible as additional sites are added. If additional office space is needed to handle the future activities and employees, LM will consider the following in the location of any additional office locations: community connectivity, impact/access to public transportation and community, building orientation, onsite and offsite renewable energy sources, site hydrology, existing watersheds, local ecosystems, incorporation and maintenance of natural habitat, light trespass, air quality, reducing heat island effect, reducing waste, and connection to community sidewalks, bike trails, and hiking trails.

Principles for Sustainable Federal Location Decision

As required by the DOE Real Estate Desk Guide, a Preliminary Real Estate Plan (PREP) must be prepared whenever there is a requirement to acquire additional realty interest. As referenced in the DOE Real Estate Desk Guide, EO 13514 requirements and the principles for sustainable federal location decisions will include (1) consideration of sustainable locations from a regional perspective and (2) consulting with local officials and considering their recommendation when preparing the PREP for any future expansions or acquisition of office space.

These written procedures can be found in the DOE Real Estate Desk Guide, which incorporates the requirements of EO 13514 in Chapter 7, “Land and Property Rights Management.”

Watershed and Ecosystem Management

Over 900 acres of the Fernald site have been ecologically restored, with approximately 400 acres of forest, 360 acres of prairies, and 140 acres of wetlands and open water. Through an expanding outreach effort, LM is working with local schools to encourage the next generation of scientists

and engineers. Fernald site employees develop and use educational curriculum that provide hands-on learning experiences for thousands of area students, from elementary grades through college. Regularly scheduled, nature-based educational programs for the public complement the site's school-based outreach activities.

The federally endangered American burying beetle was reintroduced to the Fernald site in 2013. The U.S. Fish and Wildlife Service partnered with DOE to develop a cooperative agreement for the beetle's reintroduction at the site.

LM continues to work with local counties and the U.S. Bureau of Land Management offices to control noxious weeds along access roads and on selected LM sites.

Environmental Management/Stakeholder Involvement and Collaboration

LM maintains an extensive distribution list of local stakeholders and elected officials for each site. Stakeholders are updated or contacted as site activities warrant. All stakeholders are able to access public websites for copies of annual or other reports. The Rocky Flats, Colorado, Site and the Fernald, Mound, and Weldon Spring sites continue to participate with stakeholder groups in routinely scheduled meetings.

LM continues to coordinate and attend quarterly meetings with representatives of the Navajo Nation and Hopi Tribe. The Shiprock site; the Monument Valley site; the Mexican Hat, Utah, Disposal Site; and the Tuba City site are on or near Navajo or Hopi reservations. The quarterly meetings are used to provide the status of site activities and to jointly address technical challenges and opportunities to sustain and improve long-term surveillance and maintenance at these sites.

LM continues to coordinate and work together through cooperative agreements and regular meetings with the Northern Arapaho and Eastern Shoshone Tribes. The Riverton, Wyoming, site is located on the Wind River Indian Reservation, which is owned and managed jointly by the two Tribes. The meetings and cooperative agreements are used to provide status of site activities, to address technical challenges at the site, and to work cooperatively in protecting human health and the environment.

LM provides a financial assistance grant to the Aleutian Pribilof Islands Association Inc. (APIA). APIA is the federally recognized tribal organization of the Aleut people in Alaska and is an important component of the LM mission at Amchitka Island, Alaska. APIA represents the interests of the Aleuts and assists LM with communications with the Aleut people and the Alaska Department of Environmental Protection. APIA participates in developing work scope related to the LM mission on Amchitka and participates in regular planning meetings.

A University of Arizona graduate student published her research on combining ground and remote sensing methods to monitor effects of landscape-scale changes in native plant communities on phytoremediation and hydraulic control of a groundwater plume at the Monument Valley Site. An LMS scientist co-authored the publication. Another University of Arizona graduate student and Native American stakeholder completed her Master of Science thesis on the uptake of contaminants by deep-rooted plants growing on disposal cells. An LMS scientist served on her graduate committee.

LM maintains an educational exchange partnership with the Diné Environmental Institute at Diné College, the oldest tribal college in the United States. LM and LMS contractor scientists teach seminars, involve students in field research activities, and mentor student interns. Through an educational philosophy grounded in the Navajo traditional living system that places human life in harmony with the natural world, college faculty and students help LM explore more sustainable remedies for soil and groundwater contamination at former uranium mill sites on Navajo Nation land.

2.7.2 Site-Specific Measurable Goals and Milestones (3–5) for the Next Fiscal Year

Ensure that site policies and guidance documents reflect LM’s ongoing participation and coordination with local and regional transportation and planning groups.

Ensure that planning for new federal facilities or new leases includes consideration of sites that are pedestrian friendly, are near existing employment centers, are accessible to public transit, and emphasize existing central cities and, in rural communities, existing or planned town centers.

Continue to hold quarterly meetings with the Navajo Nation and Hopi Tribe.

Continue to hold meetings with the Northern Arapaho and Eastern Shoshone Tribes and the Aleutian Pribilof Islands Association Inc. as needed.

Continue to encourage public participation and offer educational programs at LM sites with visitors and interpretive centers and continue educational outreach programs.

Continue to pursue the larger-scale control of noxious weeds through coordination with local and regional agencies and neighbors.

Continue to adhere to the guidelines in OMB Memorandum M-12-12, “Promoting Efficient Spending to Support Agency Operations,” Section 3, “Real Property,” which states: “Agencies shall not increase the size of their civilian real estate inventory, subject to exceptions. . . . Acquisition of new Federal building space (where approval of such acquisition occurs following the date of this memorandum) that increases an agency’s total square footage of civilian property must be offset through consolidation, co-location, or disposal of space from the inventory of that agency.”

Strive to adhere to the “Freeze the Footprint” guidelines by not increasing LM’s current office/warehouse space during 2014–2016. This may include setting standards for office size or configuration, reconfiguring current office space, sharing of office space, and concentrating employees in office space that costs less to maintain.

2.7.3 Success Stories and Examples, Accomplishments, Lessons Learned, and Best Management Practices

The data center previously located in Building 12A (6,757 GSF) at the Grand Junction office site was relocated to a smaller, newly renovated space (Building 46, 3,970 GSF) in 2013, thereby reducing the data center’s leased footprint. The lease for Building 12A will be terminated in

2014. This will reduce the number of buildings and total square footage in the HPSB inventory. By consolidating the office space into a smaller, more efficient footprint and using the existing campus infrastructure (such as utilities, parking, security, bike racks and showers), this building has maximized the use of available resources while maintaining the critical requirements needed for a data center.

3 Fleet Management

3.1 Increase Alternative Fuel Use by 10 Percent Year-Over-Year

Under the DOE 2012 SSPP, DOE is committed to a 10 percent annual increase in fleet alternative fuel use by FY 2015 relative to a FY 2005 baseline (the 2013 target is a 114 percent cumulative increase in usage compared to 2005).

3.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Status is tracked in the FAST database (Scope 1 GHG Mobile Emissions data, in terms of CO₂, and located and summarized in CEDR tab 1.3). E85 fuel stations are tracked using the alternate fuel data center at DOE's Energy Efficiency and Renewable Energy website.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Previously, LM has consistently exceeded the annual goal of a 10 percent increase in alternative fuel consumption.

Based on LM tracking data, LM consumed zero gallons of alternative fuels in the baseline year of 2005. LM's 2013 alternative fuel consumption was a total of 3,811 gallons. This represents a very large increase of alternative fuels relative to the 2005 baseline. Based on the EISA 2007 goal to increase E85 fuel use by 10 percent each year from 2005 through 2015, LM has already reached the final goal. The CEDR uses FAST data for the 2005 baseline; this baseline is an overestimation which results in a skewed calculation for changes in E85 consumption when compared to the baseline. For example, the overall change in consumption based on the FAST data indicates an 11 percent decrease in use of E85 fuel. A comparison of the E85 consumption utilizing the two different baselines is shown in Table 4 below.

Table 4. LM Alternative Fuel Use

Data Set	Baseline (gallons)	2012 Usage (gallons)	2013 Usage (gallons)	Annual % Change	Total % Change
Using 2005 LM Baseline ^a	1	4,328	3,811.15	-11.9%	381,115%
Using 2005 FAST Baseline ^b	4,275	4,328	3,811.15	-11.9%	-10.9%
Using 2009 FAST baseline	2,235	4328	3,811.15	-11.9%	70.5%

Notes:

^a LM has tracked fuel-type information since before the baseline year of 2005. LM did not use any E85 in 2005. However, percentage calculations cannot be performed with zero as a denominator. To avoid this problem, LM utilized a 2005 baseline of 1 gallon.

^b In 2005 the guidelines for FAST were as follows: Estimate the total amount of fuel used in your AFV fleet for the listed year. Include gasoline and diesel and any alternative fuels in the estimate. All petroleum-based fuel consumed in E85-capable vehicles for LM was reported in FAST as E85 fuel, even though LM did not use E85 fuel in 2005. Therefore, the E85 numbers reflected in FAST for 2005 are in overestimation, which results in a misrepresentation of LM's change in E85 fuel use.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

Baseline Methodology 1 (“Using LM Baseline” row in Table 4):

It was determined that LM could not have consumed E85 fuel in 2005 since the infrastructure was not available until 2007, thus leaving LM with 0 gallons of alternative fuel consumed in 2005.

It was assumed that LM used 1 gallon of E85 fuel in 2005 (since a percentage change could not be calculated if 0 gallons of E85 fuel was for that year). The result is 381,115 percent increase in E85 fuel consumption (Table 4).

Baseline Methodology 2 (“Using 2005 FAST Baseline” row in Table 4):

In 2005 the guidelines for FAST were as follows: Estimate the total amount of fuel used in your AFV fleet for the listed year, and include gasoline and diesel and any alternative fuels in the estimate. As a result, all fuel consumed in E85-capable vehicles was reported in FAST as E85 fuel, even though no E85 fuel was actually used by LM in 2005 and 2006. This resulted in an overestimation of LM’s 2005 baseline values.

LM made the assumption that E85 capable vehicles receiving fuel were receiving E85 fuel. However, since E85 fuel was not available in 2005, this could not have been true. Therefore, the 2005 baseline of 4,275 gallons is an overestimation, and the calculated total change (for 2013 compared to 2005) of –10.9 percent is not a realistic representation of alternative fuel use.

Baseline Methodology 3 (“Using 2009 FAST baseline” row in Table 4):

In 2007 the FAST guidelines changed to require precise reporting of E85 consumption. However, it was not until 2009 that an accurate baseline could be achieved to be a basis for all reporting going forward. This was due to fueling pumps not having the ability to differentiate

between E85 and gasoline and diesel fuel until 2009. LM believes that calculated total change (for 2013 compared to 2009) of 70.5 percent by this methodology is the best representation of LM progress for this goal.

3.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM is currently tracking and will continue to track the locations of E85 stations relative to the work being performed as part of LM's mission. See Attachment D, "LM Fleet Management Plan."

- b. Expected site contribution to the DOE goal(s)

The LM annual target has been met and LM has exceeded this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph "a." above, LM will pursue the following goals and milestones:

- Submit needed AFV waivers for 2014 where E85 fueling stations are unavailable, and coordinate appeals for waivers as needed.
- Continue tracking E85 fuel use by each vehicle in 2014 for reporting purposes.
- Continue to monitor DOE's Energy Efficiency and Renewable Energy website to determine E85 fuel and biodiesel (B20) fuel availability by location.
- Continue to place maps and station listings showing E85 fuel stations in all E85-fuel-capable vehicle logbooks at the Grand Junction office site.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

3.2 Reduce Departmental Fleet Petroleum Use by 2 Percent Annually

The DOE 2012 SSPP goal requires a 2 percent annual reduction in fleet petroleum consumption every year from FY 2005 through FY 2020 relative to an FY 2005 baseline (2013 target: 16 percent cumulative since 2015).

3.2.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in the FAST database.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

LM's mission is to manage post-closure responsibilities and ensure the future protection of human health and the environment. As more sites move into post-closure and legacy management, LM's number of sites and associated use of vehicles will continue to increase, making it difficult for LM to meet the reduction goal.

LM's current strategy is to replace all light-duty vehicles with AFVs if reasonable at the time of replacement. The availability of E85 vehicles will allow for more opportunities to use E85 fuel and reduce the use of petroleum fuel. However, some locations do not have E85 fueling infrastructures available to accommodate an E85 fueled vehicle. For these locations, only petroleum-using vehicles are recommended to be purchased.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM's petroleum fuel use in 2013 indicates a 5.4 percent decrease in consumption compared to 2012 and a 16.9 percent decrease in consumption since the baseline year of 2005. To determine the effects of LM's expanding mission, LM calculates normalized values for fuel use based on the number of sites supported. For the normalized evaluation, the fuel consumption, in gallons, is divided by the number of LM sites in the current year. Based on the normalized values, LM's petroleum fuel use in 2013 indicates nearly a 38.1 percent decrease in consumption since the baseline year of 2005. A comparison of the petroleum fuel consumption changes using both data sets are shown in the Table 5.

Table 5. LM Petroleum Fuel Use

Data Set	Baseline–2005 (gallons)	2012 (gallons)	2013 (gallons)	Annual % Change	Total % Change
Using LM Baseline ^a	31,488	27,675	26,180	-5.4%	-16.9%
Normalization of data to reflect increase of mission					
Number of LM Sites	67	89	90	1.1%	34.3%
Fuel Use/Site	470.0	311.0	290.9	-6.5%	-38.1%

^a The CEDR reported LM 2005 baseline values as 27,213 gallons of conventional petroleum and 4,275 gallons of E85 fuel. This occurred because, for all E85-capable vehicles in 2005, 100% of fuel was reported as E85 fuel. However, E85 fueling infrastructure was not in place in 2005, and all reported E85 was actually conventional petroleum fuel. The new correct 2005 baseline amount for conventional petroleum fuel consumption is 31,488 (i.e., 27,213 + 4,275).

Methods of reducing conventional fuel use while including newly acquired sites as LM’s support scope increases include: acquiring more E85-capable vehicles, tracking and updating E85 station locations for vehicle users, and promoting ride-sharing and trip consolidation whenever possible.

LM has established videoconferencing capabilities at its eight manned sites around the country. In addition, virtual-presence meeting software is being used more frequently to reduce travel.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

LM has identified more accurate 2005 baseline value for conventional petroleum usage, in regards to this goal. Originally, for all E85-capable vehicles in 2005, 100 percent of fuel consumed was reported as E85 fuel. Accordingly, the CEDR previously reported the 2005 baseline for conventional petroleum as 27,213 gallons and for E85 as 4,275 gallons, and those values resulted in a calculated 1.6 percent decrease in conventional petroleum consumption for 2013 compared to the 2005 baseline. However, in reality, in 2005 a E85 fueling infrastructure was not in place and all reported E85 fuel consumed was actually conventional petroleum fuel. This results in a new 2005 baseline value of 31,488 gallons of conventional petroleum fuel consumed (see Table 5, and that new baseline results in a calculated 16.9 percent decrease in conventional petroleum fuel consumption for 2013 compared to the 2005 baseline.

3.2.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

See Attachment D, “LM Fleet Management Plan.”

b. Expected site contribution to the DOE goal(s)

LM met the 2013 interim target but does not expect to meet this goal because of continued growth in the number of LM sites. Due to increasing growth in the number of LM sites that must be supported by the LM Fleet, LM expects to meet this goal only through the use of normalized figures.

If the program grows as expected, the number of LM sites will grow to approximately 126 by 2020. It will be a major challenge for LM to decrease fleet petroleum consumption by 2 percent annually through 2020 compared to the 2005 baseline while maintaining the site support efforts and accomplishing the LM mission. In 2005, LM had significantly fewer sites and vehicles than at the end of 2013.

c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Continue to maintain a list of vehicles, monitor the monthly fuel consumption, monitor vehicle and fuel type, and take appropriate action to meet sustainability goals for vehicle and fuel use.
- Increase the overall fuel economy of the fleet by continually working with GSA to acquire smaller vehicles or other advanced-technology vehicles.
- Identify the most fuel-efficient vehicle for a given task by taking into account miles driven, fuel used, vehicle use, and road types such as off-road conditions.
- Continue to (1) encourage the use of videoconferencing and virtual-presence meeting software capabilities at LM’s eight major sites around the country to reduce travel and (2) reduce miles through methods such as trip consolidation.

e. Request for technical assistance with reference to CEDR project number, if needed

None.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

3.3 AFV Purchases

The DOE SSPP goals for new vehicle acquisitions include the following: (1) by 2015, of all vehicles purchased, at least 75 percent will be AFVs, and (2) by 2015, 100 percent of light-duty vehicles purchased shall be AFVs.

3.3.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in the FAST database.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM's goal is to replace retired light-duty vehicles with AFVs at least 75 percent of the time, which is consistent with the DOE SSPP goal that 75 percent of light-duty vehicle purchases must consist of AFVs by 2015. LM's current strategy, which is to acquire an AFV when any fleet vehicle needs to be replaced, exceeds the EAct 1992 requirement that 75 percent of retired vehicles be replaced with AFVs. Currently LM's light-duty fleet is 100 percent AFVs, which exceeds the EAct 1992 requirement for AFVs and meets the 2015 goal.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

3.3.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM's current strategy is to replace all light-duty vehicles with AFVs if reasonable at the time of replacement. Some locations do not have E85 fueling infrastructures available to accommodate an E85 fueled vehicle. As such, it would not be cost-effective for us to lease E85 vehicles at an added incurred monthly cost. See LM Fleet Management Plan (see Attachment D).

- b. Expected site contribution to the DOE goal(s)

LM has already met this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- The Vehicle and Fuel Use team will continue to record and track vehicle-related data and produce monthly summary reports that include information regarding AFVs.
- In addition, data in the FAST report will continue to project a 3-year vehicle acquisition forecast that will include AFV acquisitions for all light-duty vehicles when possible and depending on alternate fuel availability.
- LM will continue to acquire AFVs for all light-duty replacements when possible and depending on alternate fuel availability.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

3.4 Reduction in Fleet Inventory

The DOE SSPP committed DOE to reduce fleet inventory by 35 percent by the end of FY 2013 relative to a 2005 baseline. LM has met this goal.

3.4.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in the FAST database.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

On January 27, 2011, former Secretary Chu challenged the Department to reduce vehicle fleets by 35 percent over 3 years (2012, 2013, and 2014) based on 2005 numbers “without sacrificing either critical mission elements or [the Department’s] commitment to operating in a safe, secure and environmentally sound manner.”

In an attempt to meet former Secretary Chu's challenge, LM reduced its fleet size by four vehicles in 2012 and three vehicles in 2013. The inventory in early FY 2014 was 35 leased vehicles and 1 owned vehicle.

LM had significantly fewer sites and vehicles in 2005 than those projected for the end of 2014. LM currently has 90 sites and is projected to have 91 by the end of 2014. In accordance with LM's mission, the number of sites will continue to increase, with the expected programmatic growth, to approximately 126 sites by 2020.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM reduced its vehicle fleet by three vehicles in 2013. This brought LM's fleet to 35 leased vehicles and 1 owned vehicle in 2013. By the end of FY 2013, LM has reduced its total fleet vehicle inventory by 37 percent compared to 2005, which exceeded the DOE initiative of a 35 percent reduction in non-mission-critical fleet by the end of 2013.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

3.4.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

It is not anticipated that LM will need to reduce the fleet again in 2014. If LM's mission continues to expand through 2020 as expected, it will be difficult to meet this goal. LM has projected a 41 percent increase in the number of sites by 2020, and it would be problematic to hold steady on the current number of fleet vehicles. Although most of those transitioned sites are unstaffed, they are supported by the vehicles from the closest staffed site, and any further reductions in fleet inventory could jeopardize LM's ability to meet mission goals. See Attachment D, "LM Fleet Management Plan."

- b. Expected site contribution to the DOE goal(s)

LM has exceeded this goal by 2 percent.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Continue to assess the use of vehicles at all manned sites.
 - Continue to explore the use of all-terrain and electric non-fleet vehicles at locations conducting work onsite.
 - Continue to project future needs for vehicles as it relates to LM’s mission.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

4 Water Use Efficiency and Management

According to the DOE SSPP, LM will reduce water consumption at goal subject sites for the following areas:

- Potable water intensity by no less than 26 percent by FY 2020 relative to the established FY 2007 baseline.
- Non-potable fresh water used for industrial, landscaping, and agricultural (ILA) purposes by no less than 20 percent by FY 2020 relative to the established FY 2010 baseline.

4.1 Potable Water Intensity Reduction Goal

LM is required to reduce potable water intensity use by 26 percent by 2020 compared to a 2007 baseline.

4.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to this goal is reported in tab 3.1 of the CEDR, which contains updated quarterly 2013 data, and in Table 6 below. The data includes updated usage amounts and costs associated with each quarter of 2013 for both potable and ILA non-potable fresh water.

Table 6. LM Combined-Sites Water Use Since 2007

Fiscal Year	GSF ^a	Water Use (Gallons)		Potable-Water Water Use Intensity (WUI) (gallons/GSF)	Potable-Water WUI Percent Change	Non-potable Fresh Water ILA Use Percent Change (gallons)
		Potable Water	Non-potable Fresh Water ILA			
2007	10,992	1,497,098	NA	136.20	NA – Baseline year	NA
2008	11,712	1,070,768	NA	91.42	32.9% reduction	NA
2009	22,512	549,462	NA ^c	24.41	82.1% reduction	NA
2010	22,464	80,358	503,336 ^d	3.58	97.3% reduction	NA—Baseline year
2011	69,157	1,112,688	456,093	16.09	88.2% reduction	9.4% reduction
2012	69,157	392,791	459,729	5.68	95.8% reduction	8.7% reduction
2013	38,422 ^b	904,953	397,082	23.55	82.7% reduction	21.1% reduction
2013 combined-sites potable-water WUI = $(904,953 \div 38,422) = 23.55$						
2013 combined-sites percent potable-water WUI Reduction: = $[(2007 \text{ WUI} - 2013 \text{ WUI}) \div 2007 \text{ WUI}] \times 100$ percent = $[(136.20 - 23.55) \div 136.20] \times 100$ percent = 82.7 percent reduction						
2013 combined-sites percent non-potable fresh water ILA Reduction: = $[(2010 \text{ ILA} - 2013 \text{ ILA}) \div 2010 \text{ ILA}] \times 100$ percent = $[(503,336 - 397,082) \div 503,336] \times 100$ percent = 21.1 percent reduction						

Notes:

- ^a See Attachment C for a listing of LM's gross square footage. The gross square footage used to determine potable-water WUI values is different from the gross square footage provided in the FIMS snapshot, because water use does not occur in all the included FIMS square footage. Therefore, the potable-water WUI values in the CEDR and this SSP are not the same. The values reported in this table are the correct values for LM's potable-water WUI.
- ^b The onsite Administration Building at the Weldon Spring site was demolished in September 2012. Therefore, the LM Water Conservation Team did not that building's square footage in the combined-sites GSF for 2013; (that building's square footage was included in the 2012 GSF).
- ^c SPO expanded the definition of fresh water to include non-potable fresh water in mid-2009, so LM included non-potable use in the overall water use category. In 2010, SPO directed that non-potable water should not be included in the EO 13514 potable water reduction goal, but the 2009 non-potable use values did not have to be eliminated from past reported potable use data.
- ^d Non-potable fresh water used for ILA was defined with its own goal, for which 2010 is the baseline year.

Abbreviations:

NA = not available
 WUI = water use intensity

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

LM demolished the Weldon Spring Administration Building in mid-September 2012, so LM did not include this building in potable-water water use intensity (WUI) calculations for 2013 (the building was included in 2012 WUI calculations). The Administration Building was replaced by a modular office building for use by employees, and the square footage of that new office building was included in the combined-sites GSF for 2013. These building modifications decreased LM's combined-sites GSF for 2013.

c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

In 2013 LM tracked potable water use at all LM goal subject sites. Table 6 shows the water use performance of LM goal subject sites since 2007. As shown in Table 6, by 2013 LM had reduced potable-water WUI by 82.7 percent compared to the baseline year of 2007, exceeding the minimum water intensity goal of a 12 percent reduction by the end of 2013. (See Attachment C, “LM Buildings and Gross Square Footage Used for Reporting,” for square footage values used to calculate potable-water WUI.) The calculated WUI reduction conflicts with the reported percentage reduction in the CEDR. See a footnote “a” in Table 6 for an explanation.

Although LM achieved the required overall WUI reduction for 2013, water use at the Grand Junction disposal/processing site was abnormally high due to increased site activities. LM determined it to be more cost-effective to use potable versus non-potable water for site activities. LM’s water use at the Fernald site was also abnormally high. This was due to decreased annual precipitation, which necessitated adding potable water to the pond supporting the ground source heat exchanger for the Fernald Visitors Center.

Demolition of the Administration Building at the Weldon Spring site included destruction of 12 toilets, 4 urinals, 1 shower, 12 bathroom sinks, 2 utility sinks, 3 kitchen sinks, and 4 drinking fountains. This eliminated all water use in the building. One of LM’s proposed water conservation improvements for 2013 was to install WaterSense aerators on two faucets at the Fernald Site. However, aerators to fit those faucets could not be obtained. LM determined that it would not be cost-effective to purchase new faucets due to the minimal amount of water the Fernald employees use each year through those fixtures.

A water audit to verify metering condition was conducted at the Weldon Spring site in 2013.

LM maintained and followed a water management plan found in the LMS *Environmental Management System Programs Manual*, Section 3.0, “Water Conservation.”

LM evaluated ways to reuse and recycle water.

LM identified budgeting needs for 2014 through 2019.

LM consistently addresses ways to reduce water-use by utilizing multiple project-planning tools (Project Activity Evaluation, Statement of Work, etc.) that address several aspects of sustainability, including water (potable and/or non-potable) reduction opportunities.

d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

The gross square footage LM used to determine potable water use intensity values is different from the gross square footage provided in the FIMS snapshot, because water use does not occur in all the included FIMS square footage. Therefore, the potable-water WUI values in the CEDR

and this SSP are not the same. The values reported in Table 6 are the correct values for LM's potable-water WUI.

4.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM will continue to track and monitor potable water use for 2014 and beyond to identify areas for water efficiency improvements.

LM expects to have high potable water use in 2014. This is in part due to continued activity at the Grand Junction disposal/processing site, and also due to possible continuation of lower-than-normal annual precipitation for the Fernald site.

- b. Expected site contribution to the DOE goal(s)

LM met the annual interim target and is expected to exceed this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph "a." above, LM will pursue the following goals and milestones:

- Conduct two water audits in 2014 at the Grand Junction disposal/processing and Old Rifle processing sites.
 - Continue to reduce water use and to implement water efficiency improvements identified in past audits.
 - Continue to investigate ways to reuse and recycle water and continue to perform water audits of goal subject sites to meet the requirements of EISA Section 432. The LM Water Conservation team rotates audited sites to ensure that all of the sites are audited at least once every 4 years.
 - Maintain, update as needed, and follow a water management plan described in the LMS *Environmental Management System Programs Manual*, Section 3.0, "Water Conservation."
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

4.2 Non-Potable Fresh Water ILA Use Reduction Goal

LM is required to reduce consumption of non-potable ILA water by 20 percent by 2020 compared to the 2010 baseline.

4.2.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to this goal is reported in tab 3.1 of the CEDR.

LM updated quarterly 2013 data in tab 3.1 of the CEDR. The data includes updated usage amounts and costs associated with each quarter of 2013 for both potable and ILA non-potable fresh water. For more information, see Table 6.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM tracked 2013 non-potable freshwater use data for ILA purposes at all LM goal subject sites. As shown in Table 6, in 2013 LM reduced ILA water use by 21.1 percent compared to the baseline year of 2010, which exceeds the required interim ILA reduction of 6 percent by the end of 2013.

Although LM achieved the required water use reduction goal during 2013, it is important to note that use at the Fernald Preserve was atypically high due to restored area/biowetland irrigation and dust suppression necessary for construction of gravel roads onsite.

LM followed its water management plan described in the LMS *Environmental Management System Programs Manual*, Section 3.0, "Water Conservation."

LM identified budgeting needs for 2014 through 2019.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

Tab 3.1 of the CEDR contains updated quarterly 2010 data. The data includes updated usage amounts associated with each quarter of 2010 for ILA non-potable fresh water in accordance with an SPO request. The costs associated with each quarter in 2010 were entered correctly.

4.2.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM will continue to track and monitor non-potable ILA water use to identify areas for water use efficiency improvements.

LM plans to install separate standard water meters at the Tuba City site on both the Control and Shop/Lab buildings.

- b. Expected site contribution to the DOE goal(s)

LM met the annual interim target and is expected to exceed this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Install two separate water meters at the Tuba City site; one each on the Control and Shop/Lab buildings.
- Continue to implement non-potable fresh water efficiency improvements as opportunities and funding become available.
- Continue to use low-water-use landscaping technologies and practices. Investigate ways to reuse and recycle water.
- Continue to perform water audits of goal subject sites to meet the requirements of EISA Section 432. LM will rotate the selection of audited sites to ensure that 100 percent of the sites are audited every 4 years.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

4.3 Storm Water Management

EISA Section 438 stipulates that “The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.”

4.3.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

None.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

None.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

4.3.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

No new activities are currently planned for 2014. Any new activities would be planned to ensure that EISA 438 requirements are met.

- b. Expected site contribution to the DOE goal(s)

LM will pursue attainment of this goal if larger construction activities are identified.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

LM will pursue the following goals and milestones:

- Place the EISA 438 requirements into design procedures for development or redevelopment projects that exceed 5,000 GSF.
- Ensure any new or upgraded roofs will be green and/or use rainwater cisterns.
- Consider utilizing concrete paving blocks that are designed to infiltrate runoff for new parking lots.
- Consider installing bioswales adjacent to asphalt roadways and other hard surfaces to facilitate infiltration when future upgrades are planned.

- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

5 Pollution Prevention and Waste Minimization

LM has established the following goals that are consistent with the pollution prevention goals outlined in the DOE SSPP:

- Achieve 50 percent diversion of nonhazardous municipal solid waste through recycling/reuse by 2015.
- Achieve 50 percent diversion of construction and demolition debris through recycling/reuse by 2015.

5.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

LM maintains Excel spreadsheet inventories for recycled materials, chemicals, universal wastes, and solid, hazardous, and radioactive wastes. These tracking spreadsheets are maintained and updated twice a year with data compiled by the environmental compliance points of contact for each LM site. Performance related to these source reduction goals was previously reported in LM's annual PPTRS report but is now reported in CEDR tabs 9.1 a–c. (Please note that LM disposal sites and onsite landfills do not fall within the definitions and criteria in the CEDR

Technical Support Document guidance for onsite solid waste disposal. Therefore there are no data to report for onsite waste disposal in CEDR tab 9.1a, nor is there any carryover to report in tab 9.1c.)

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

LM's job-planning process takes into account minimizing the generation of waste and pollutants through source reduction. LM's contracts and subcontracts specifically call for waste minimization and the use of less-toxic and more environmentally friendly products and chemicals. Websites to locate these materials and supplies are provided in most requests for proposals and statements of work. Assessments are conducted periodically to ensure that subcontractors are addressing these requirements.

To facilitate pollution and waste prevention in the job planning process, the WMP2 team has initiated a draft guidance document, *Guidance for Implementing Solid Waste and Construction Debris Diversion Strategies*, that provides project managers with specific recycling and waste reduction measures to consider in planning and implementing their projects. This guidance will be further refined based on the results of the pilot efforts documented through a PPOA currently underway for the demolition of Building 12A at the Grand Junction office site.

LM reviews all chemical procurement requests to ensure that chemicals regulated under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) are tracked, reduced, or undergo a sustainable-alternatives review. Acceptable alternative chemicals are approved through the procurement and job-planning processes.

LM maintains an ecosystem improvement log that includes the results of weed control and management activities. Integrated pest management (IPM) is the preferred control method when it is appropriate to the site conditions. When IPM is not appropriate to the site conditions, less toxic or nontoxic chemical applications are evaluated for effectiveness and cost and used as appropriate.

LM reviews Personal Property procedures at least once every two years to ensure alignment with all guidelines in DOE Order 580.1A, Federal Acquisition Regulation policies and procedures, the CFR, and the LM *Personal Property Management Manual* (LMS/POL/S04336). The definitions and descriptions of property that cannot be cleared for unrestricted release are defined in DOE Order 580.1A and in the LM *Personal Property Management Manual*. When property cannot be cleared for unrestricted release, the Personal Property department engages the Health and Safety team in all cases and follows all guidance provided by that team. Personal Property is required to conduct annual inventories of any High Risk Personal Property (HRPP) and sensitive items. (LM does not currently have any HRPP or sensitive items.)

c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

LM was able to achieve 49.7 percent solid waste diversion from landfills through the use of source reduction and recycling strategies. LM was also successful in diverting 55.5 percent of construction and demolition debris through reuse and recycling measures.

LM reviews subcontract statements of work, project activity evaluation forms, and readiness reviews to ensure that sustainability language is in place for recycling, reuse, salvage, and green purchasing.

A PPOA was initiated for the Building 12A demolition project at the Grand Junction office site. This assessment is tracking the use and effectiveness of the draft guidance. To date, over 2,000 pounds of appliances, metals, and doors and fixtures have been reused or recycled. LM expects that at least 50 percent of Building 12A will be recycled or reused during the first half of 2014.

LM submitted reports for Section 312 of EPCRA for three sites. No EPCRA Section 313 reports were required. An LM-wide battery inventory was completed and is being maintained to ensure that sites are meeting EPCRA requirements for reporting sulfuric acid and lead quantities, if applicable. EPCRA reports are tracked through a monthly update to the regulatory compliance schedule. Procurement tracking is used to help compile data for EPCRA reporting. In addition, a chemical inventory program is in place to track all chemicals at each LM site and ensure that significant changes in chemical quantity or toxicity are evaluated for applicable EPCRA reporting requirements.

LM continued to improve chemical-management activities by maintaining accurate inventory management, identifying and sharing excess chemicals, and planning chemical purchases based on need. Chemical inventories are updated quarterly, and each site maintains an accurate Material Safety Data Sheets logbook. Examples of chemical reduction and minimization efforts in 2012 included the following:

- The chemist at the Environmental Sciences Laboratory (ESL) (Grand Junction office site) continually checks and reuses expired stock liquid standards for noncritical analyses.
- All sites equipped with a laboratory continue to share reagent-grade sample preservatives with the LMS contractor Environmental Monitoring group.
- The ESL also shares chemicals and gases with the Environmental Remediation Sciences Program laboratory at the Old Rifle site.

A week-long e-mail message campaign was conducted for Earth Day with helpful tips and opportunities for employees to reduce waste and minimize pollution. A communication campaign was also conducted for Pollution Prevention week, which included e-mail messaging to all offices and a documentary film event hosted at the Grand Junction office site. The documentary film “*Bag It: Is Your Life Too Plastic?*” showcased the effects of plastic pollution and ways to minimize plastic waste. An indoor air quality survey was conducted at the Grand Junction office site. The monitored parameters of carbon dioxide and formaldehyde were within

acceptable limits. No volatile organic compounds or carbon monoxide were detected at any location.

Based on EO 13514, LM has a standard electronic stewardship practice of programming all printer drivers and multifunction devices to the default settings of duplex printing (if the machine has that capability) and black-and-white printing. This was not always the case. Previously, LM computers with Windows XP had incompatibilities with the Windows 2008 server that prevented some electronics from maintaining the default settings. The 2013 migration of computers to Windows 7 has enabled full compatibility with the server and reliable maintenance of the default printing settings. The expectation is that this will further reduce the amount of printing paper used as well as reducing some of the associated printing chemicals.

LM's sustainable acquisition program was developed in accordance with EO 13423, EO 13514, and DOE Order 436.1 in order to meet specific purchasing goals such as the purchase of 30 percent post-consumer fiber paper. LM issued *Management Guidelines for Green Products* and a sustainable acquisition coding program with specific Y-codes and cost elements for recycled paper purchasing. LM reported 100 percent achievement in purchase paper that has at least 30 percent recycled content in the 2012 PPTRS, and LM has maintained that achievement for 2013.

Each week the Grand Junction office site sends computer backup tapes to the main computer site in Morgantown, West Virginia, and they return the sets each week as well. The process uses three boxes in each transfer. Boxes are reused and last 2 months before they are recycled and replaced with new ones. The savings in this process is 1,100 boxes at 1,100 pounds per year. Boxes cost only \$1.00 so initial cost savings are not large, but reduced waste serves as an example of reducing, reusing, and recycling.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

Examination of the data that was entered into the PPTRS in 2013 for diversion of solid waste revealed a data entry error in CEDR tab 9.1c. The entered value of 41 metric tons was most likely an expression of an initial diversion percentage rather than the weight diverted. The correct number that should have been entered is 132.35 metric tons, which results in a 48 percent waste diversion. This is the percentage of waste diversion that was reported in the 2013 SSP. (The incorrect number, 41 metric tons, was carried over into the CEDR in 2013 and should be replaced by the value 132.35 metric tons.) Additionally, the column identified as the Mass of Solid Waste Disposed Off-site should be carrying over metric tons from tab 9.1b but it is carrying over short tons instead.

5.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

Support efforts to meet the 50 percent diversion goals for solid waste and construction debris buy means of an awareness campaign during the 1st quarter of 2014. Awareness communications will include an *ECHOutlook* newsletter article and employee messaging.

Plans previously reported for the 2013 demolition of the south end of Building 12 (Building 12A) at the Grand Junction office site are in progress, with the actual demolition now scheduled to take place in 2014. This activity will remove the last of the site's radioactive contamination from beneath the building.

LM has drafted Guidance for Implementing Solid Waste and Construction Debris Diversion Strategies for project managers to use during project planning and preparation. The WMP2 team will help project managers test this guidance as they incorporate it into their planning. The guidance will continue to be refined as needed.

LM is assessing opportunities to improve existing recycling efforts at manned office sites. Considerations are being made for purchase and installation of new recycling containers at the Grand Junction office site.

LM is in the process of assessing the effectiveness of current composting efforts at some sites and the feasibility of a compostable material collection effort for third-party composting where full-scale onsite composting is not feasible.

The expectation is that LM's overall efforts to increase awareness throughout the organization will further integrate waste minimization and recycling into future projects, enabling LM to fully meet the 50 percent waste diversion goals for 2015.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Complete a proposal for purchasing new recycling containers for the Grand Junction office site by April 2014.
 - Test and evaluate the Guidance for Implementing Solid Waste and Construction Debris Diversion Strategies for at least two new proposed projects.
 - Increase composting efforts where feasible, and discontinue it where efforts are not effective. Continue consideration of proposed expansion of existing efforts at the Fernald site.
 - Review results of the recent integrated pest management and rangeland health monitoring study done at the Edgemont, South Dakota, Disposal Site.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

6 Sustainable Acquisition

6.1 Procurements Meet Requirements by Including Necessary Provisions and Clauses (Sustainable Procurements/Biobased Procurements)

LM has established the following goals to support sustainable acquisition:

- Ensure that 95 percent of new contract actions, including task orders and delivery orders under new and existing contracts, require the supply or use of products and services that are energy efficient (Energy Star or FEMP designated), water-efficient, biobased, environmentally preferable (including Electronic Product Environmental Assessment Tool [EPEAT]-registered products), or non-ozone-depleting; contain recycled content; or are nontoxic or use less-toxic alternatives.
- At LM sites, make 95 percent of new LM contract actions for products and services, including task/release and blanket orders but excluding all credit card purchases, environmentally preferable in accordance with EO 13514 and as subject to certain qualifications.

6.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Using data in the Job Cost Accounting Management Information System (JAMIS) data warehouse, the LMS Contractor Enterprise Architecture department has created electronic

reports that provide information for products and services used by the LMS contractor. Information for new contract actions is collected manually, and all actions are reviewed. In FY 2013, 100 percent of new contract actions, including task orders and delivery orders under new and existing contracts, included requirements for products and services (1) to be energy efficient (Energy Star or FEMP-designated), water efficient, biobased, environmentally preferable (including EPEAT-registered products), non-ozone-depleting, and nontoxic or less toxic, and (2) to contain recycled content. Sustainable Acquisition data is located in tab 2.2 of the CEDR and in the PPTRS (Attachment E).

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

The sustainable acquisition wording that requires the supply or use of sustainable products and services was placed in the contractor Terms and Conditions so that it would be included in every new contract action.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*. The bulk data for products and services is included in the LMS contractor *Quarterly Performance Assurance Report*.

One hundred percent of the computer systems purchased during 2013 were rated Silver or Gold by EPEAT, excluding credit card purchases.

Ninety-nine percent of products and services purchased during 2013 were sustainable (where recycled and biobased products are identified as available by the U.S. Department of Agriculture and the U.S. Environmental Protection Agency).

All new solicitations and contracts contain requirements for products and services (1) to be energy efficient (Energy Star or FEMP-designated), water efficient, biobased, environmentally preferable (including EPEAT-registered products), non-ozone-depleting, and nontoxic or less toxic, and (2) to contain recycled content. In 2013, 100 percent of new contract actions, including task orders and delivery orders under new and existing contracts, met these requirements as reported on the CEDR.

The LMS contractor Terms and Conditions for all commodities and services have been updated to include the goal of 95 percent sustainable products.

The current LM affirmative procurement plans, policies, and programs ensure that all federally mandated designated products and services are included in all relevant acquisitions.

The current procurement process allows for review by a subject matter expert to identify applicable sustainable acquisition requirements.

The LMS contractor Sustainable Acquisition Cost Element list was updated to add imaging equipment (copiers, printers, etc.) and televisions to EPEAT purchasing standards. Imaging equipment was added on January 29, 2013, and televisions in March 2013.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None. Sustainable acquisition has no baselines.

6.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

Sustainable Acquisition team personnel will continue to attend the DOE bimonthly sustainable acquisition teleconference/webinar to stay abreast of what other DOE programs and contractors are doing to purchase sustainable products and services. LM is currently meeting sustainable acquisition goals and plans to continue meeting these goals.

The LMS contractor Terms and Conditions for all commodities and services will continue to include the goal of 95 percent sustainable products.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Track compliance with the goal of purchasing 95 percent sustainable products and services (includes tracking for the performance assurance summary and LM’s annual PPTRS report and CEDR tab 2.2).
 - Continue to strengthen the requirement for federally mandated, designated products in all procurement actions as necessary.
 - Continue to require that purchases of noncompliant energy-efficient products have written preapproval from a subject matter expert.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

7 Electronic Stewardship and Data Centers

7.1 Data Centers and Electronic Stewardship

LM has established goals that are consistent with the data centers and electronic stewardship goals outlined in the DOE SSPP. All data centers are metered to measure a monthly Power Utilization Effectiveness (PUE) of 100 percent by FY 2015 (the 2013 target is 80 percent).

7.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in LM's annual PPTRS report (Appendix E), in tab 5.1 of the CEDR, and in the DC Pro assessment tool located in the DOE Green IT (DOEGRIT) database.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

In 2013, LM completed installation of separate power-metering at all LM Locations. This metering system monitors power use in real-time and has been instrumental in reducing power usage at all locations.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Installing and configuring separate metering at all sites was challenging. Separate equipment was purchased for the server room at the Legacy Management Business Center (LMBC) in Morgantown, West Virginia, and was difficult to manage. Configuration of the equipment was more difficult than originally anticipated and required additional man-hours to research and understand.

LM continues to manage all excess or surplus electronic products in an environmentally responsible manner by:

- Redeploying equipment to other employees if it meets LM requirements.
- Donating equipment to nonprofit organizations, such as schools and community groups, if it does not meet LM requirements.
- Recycling computers and other devices with no redeemable value.

LM purchases all EPEAT Gold computer systems.

LM currently maintains two standard data centers and four smaller data centers, as defined by the Federal Data Center Consolidation Initiative (FDCCI) at satellite offices. Generally,

sustainability activity in the data centers relevant to LM's Electronics Stewardship team is at the request of the FDCCI.

LM also manages 611 workstations (desktops and laptops) as well as 75 network-managed printers.

LM continues to provide information to the FDCCI team and follows up on suggested operational changes when feasible.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

7.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM is investigating coded printer output. This would require users to put a 4- to 6-digit code into a network printer when picking up a print job. Benefits are as follows:

- Decrease duplicate output due to print jobs being picked up accidentally by someone other than the author.
- Elimination of "personal" printers previously required for printing of sensitive data.
- A general reduction in paper and electricity consumption.

In concert with the FDCCI, LM has established the following goals to perform rigorous electronics stewardship and data center management:

- Continually work to intelligently reduce the energy that computing resources consume.
- Increase or maintain the percentage of electronic assets that are disposed of through sound disposition practices.
- Ensure that 95 percent of newly purchased computer systems are EPEAT Silver or Gold.
- Reduce the number of duplicate desktop and laptop systems in circulation to a single system per user.

- b. Expected site contribution to the DOE goal(s)

LM met the 2013 interim target and is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

Most of the activity performed by the Electronics Stewardship team is part of the Enterprise Management and Information Technology (EMIT) charter. As such, these activities have been budgeted for by EMIT.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Optimize the configurations of data centers and monitor power consumption in data centers.
 - Minimize the number of systems that exist in general office space particularly, including the number of duplicate desktop and laptop systems.
 - Reduce the usage of personal printers.
 - Educate users on how they can be conscientious consumers.
 - Continue to manage surplus or excess electronic products in an environmentally responsible manner.
 - Ensure that 95 percent of newly purchased computer systems are EPEAT Silver or Gold.
 - Continually work to intelligently reduce the energy that computing resources consume.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

In addition the information provided in Section 11.1, users periodically receive notification via the Intranet or e-mail that LM policy is to power systems down at the end of the business day.

7.2 Power Utilization Effectiveness

LM has established goals that are consistent with the data centers and electronic stewardship goals outlined in the DOE SSPP. One goal is to achieve a maximum annual weighted average PUE of 1.4 by FY 2015 (the 2013 target is 1.60).

7.2.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

Performance related to these goals is reported in tab 5.1 of the CEDR, and in the DC Pro assessment tool.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

Electrical use at the LMBC data center is monitored in real-time. The maximum annual weighted-average PUE in 2013 was 1.0. Both the Morgantown LMBC and the Grand Junction office scored PUE score of 1.0. Other sites lacked sufficient data for accurate reporting. Accurate reports are expected in 2014.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Configuration of separate metering at the Legacy Management Business Center data center in Morgantown required a significant amount of time. The system has been configured to provide real-time data on demand. Lessons learned from this endeavor made metering projects at LM satellite offices easier and uniform. The LMS Network management team developed a method that used existing equipment to measure power usage in all LM data centers. This saved LM an estimated expense of \$20,000.00.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

7.2.2 Plans and Projected Performance

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

In 2014, LM plans to introduce mandatory personal identification number (PIN) code access at all network-managed printers, which should reduce energy, toner cartridges, and paper consumption.

- b. Expected site contribution to the DOE goal(s)

LM met the 2013 interim target and is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Require users to provide a PIN to retrieve output from all network-managed printers. Comparisons will be made of data before and after implementation to measure paper consumption. Energy savings can be extrapolated from this data as well as from savings through the elimination of personal printers (which should reduce energy, toner cartridge, and paper consumption)
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

In addition to the information provided in Section 11.1, users receive periodic notification via the Intranet or e-mail that LM policy is to power systems down at the end of the business day.

7.3 Power Management

LM has established goals that are consistent with the data centers and electronic stewardship goals outlined in the DOE SSPP. One electronic stewardship goal is that 100 percent of eligible PCs, laptops, and monitors will have power management actively implemented and in use by FY 2012.

7.3.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

This information is captured in tabs 5.1 and 5.3 of the CEDR and in the DC Pro assessment tool. On CEDR tab 5.1, columns AO and AP show the number of virtual hosts and the number of virtual operating systems running on them.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

All desktop and laptop systems in LM are imaged with power management settings configured in accordance with the government standards. The controls for power management on all LM systems are locked, which prohibits users from changing these controls.

At the beginning of 2013 the Windows 7 operating system was installed on 80 percent of LM computers. This allowed appropriate power management controls to be set and locked down. The remaining 20 percent were migrated during the first quarter of 2013.

- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Currently, LM has 21 virtualized hardware servers doing the work of 157 individual hardware servers. Server virtualization allows a single PC server, using specialized software, to mimic the functionality of what once took many PC servers. The result of server virtualization is lower power and cooling requirements and costs.

Simultaneous with the Windows 7 rollout, LM was able to recover 53 redundant PCs held by individuals who also held laptops, representing an overall 8 percent reduction in the number of workstations.

- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

None.

7.3.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

LM plans to continue the virtualization process where applicable. Virtualization allows for one server to perform the function of up to 100 individual servers, which results in a reduction in direct power usage and, in particular, a reduction in cooling needs, which typically represent a significant amount of energy.

In FY 2014, LM will introduce PIN-required output on all LM network-managed printers, reducing paper usage and energy consumption.

- b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

- c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None.

- d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph "a." above, LM will pursue the following goals and milestones:

- Continue to take action to conserve energy usage at all LM data centers.
 - Measure reduction of paper, toner cartridges, and power consumption due to the planned introduction of PIN-required printouts.
- e. Request for technical assistance with reference to CEDR project number, if needed

None.

- f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

8 Renewable Energy

8.1 Renewable Energy

The DOE SSPP required DOE to have 7.5 percent of its electricity consumption from renewable energy sources by FY 2013, in accordance with EAct 2005. (EAct 2005 Section 203 provides for a double bonus if the renewable energy is produced onsite and the Renewable Energy Certificates (RECs) are retained.)

Renewable energy consumption and climate change initiatives have been elevated by the President's Climate Action Plan and each effort now has its own goal section in agency SSPPs.

Renewable Energy is now a standalone goal (Goal 8), according to DOE's 2014 SSPs guidance document. The goal is for 20 percent of annual electricity consumption to come from renewable sources by 2020; (formerly, the goal was 7.5 percent by FY 2013 and thereafter). Interim targets are pending.

8.1.1 Performance Status

- a. Referencing pertinent databases and/or workbooks associated with the goal for quantitative information

The existing renewable energy projects are shown in tab 3.2a of the CEDR. Performance related to this goal is reported in the CEDR in tabs 3.2a, 3.2b, and 3.3 and are summarized in tab 1.2.

- b. Describing major initiatives or changes to missions or facilities that contribute in significant ways to goal performance

Installed PV solar arrays at the Tuba City site to generate an additional 285 kW of electricity in 2013, which provided an additional 4 percent of the electricity LM uses.

The Rocky Flats site is completely off-grid yet operates multiple equipment systems. For example:

- All site pump-and-treat systems are powered by solar power.
 - Solar power now operates automated sampling systems, treatment processes, chemical dosing pumps, continuous-duty water pumps, access gates, garage doors, and supervisory control and data acquisition systems.
 - The telemetry system consists of 20 radio-linked monitoring locations running entirely on solar power. The system collects and transmits more than 24,000 instrument readings in a typical day. All data are forwarded, upon request, through two remote terminal units with cellular modems. These locations run continuously on a single 30-watt panel and an approximately 50-ampere-hour gel battery.
 - PV solar power is also used to continuously monitor pool levels, piezometers levels, and inflow/outflow rates at three earthen dams. These data are used for dam safety emergency response, water management decisions, and long-term dam safety evaluations. Each dam generally has several 10/18 watt panels, each with its own approximately 50 ampere-hour battery.
- c. Sharing success stories, accomplishments, lessons learned, and best management practices

Performance related to these goals is promoted and reported as a best management practice in the LMS contractor *Quarterly Performance Assurance Report*.

Renewable energy (electricity) production onsite at multiple LM locations in 2013 was over 375 megawatt hours, which is a 7.9 percent of LM's total 2013 electricity usage of 4,738 megawatt hours. This is produced by approximately 168 renewable energy generating systems LM-wide. See CEDR tab 3.2a for details. Regulations allow LM to earn double credit for onsite renewable energy generated on either federal or tribal land. This raises the total claimed to approximately 15.8 percent of total LM energy use. With the addition of renewable energy credits that LM purchased in 2013, the total renewable power percentage claimed for 2013 is 25.9 percent.

All renewable energy that was generated onsite was consumed onsite. Tuba City is the only site where the solar panels are connected to the utility grid. Whenever excess energy is generated at the Tuba City site, it is put back on the grid. The utility gives LM credit for that energy on the next month's bill. Because the utility does not resell the renewable energy, LM can claim it as consumed onsite.

The solar water heating system at the Tuba City site that was installed in 2009 was not operational during 2013 due to problems with the system controls and maintenance issues. The controls have been upgraded and the system is expected to be operational in 2014.

The wind turbine that was installed at the Weldon Spring site was destroyed by a large wind storm. This was the second major damage to the turbine caused by a storm. The manufacturer that made the system is now out of business, and there are no current plans to replace the turbine.

Additional activities include the following:

- Photovoltaic systems are used to provide power for groundwater pumping at the Rifle and Shiprock sites. The Durango, Colorado, Disposal/Processing Site uses solar energy to power the enhanced evaporation system at the pond, the water level and specific conductivity data loggers for three groundwater wells, and the onsite meteorological station. A similar system is in place at the Monument Valley site.
 - Purchase of RECs continued at the Grand Junction disposal/processing site, the Monticello site, and the Fernald site, and purchases of RECs was started at the Weldon Spring site.
 - At the Fernald Preserve, PV solar-powered gates were installed.
 - Additional solar panels and batteries were installed on Mound Site Plume Treatment System air stripper at the Rocky Flats site, increasing power available to 3.4 kW.
 - At the Durango site, new legislation by the state required rural coops to purchase more renewable energy. This legislation impacts the Tri-State Coop, which supplies power to La Plata Electric Association, the local utility in the Durango area. American Capital Energy, who was awarded a lease by LM to develop solar power at the Durango site, pursued financing options for the solar project. LM will not receive any renewable energy credit towards achieving the goal.
- d. Noting baseline changes, impacts, and justifications in the SSP. Identifying, updating, and justifying any changes to previously reported data, including the baseline year in the appropriate CEDR tab. Major changes are subject to approval by program and SPO

The increase in the percentage of energy derived from renewable sources is mainly due to the 285 kW PV system at the Tuba City site becoming operational in March 2013. This percentage will increase next year when the 285 kW PV system will have been operational for a full year. The overall percentage was somewhat offset by energy purchased with Renewable Energy Certificates not being included in the percentage calculation in the CEDR in 2013.

8.1.2 Plans and Projected Performance

Discuss plans and expectations for FY 2014 and beyond:

- a. Identify planned activities (e.g., mission changes, conservation measures, renewable energy systems, new construction or deactivation and decommissioning (D&D), policy and procedures updates, training) and expected impact of planned activities

Evaluate current status of renewable energy performance and plan measures to address any gaps in meeting the new President's Climate Action Change 20 percent goal by FY 2020 and any future interim targets. If additional actions are needed to meet the new 20 percent FY 2020 goal, task order managers, site leads, and engineering group personnel will be engaged by the LM Renewable Energy team. Together they will review sites for feasibility of installing renewable energy generating facilities and will develop projects to meet the new goal.

b. Expected site contribution to the DOE goal(s)

LM is expected to meet this goal.

Until 2013, LM had met the 7.5 percent goal since 2010 mainly by purchasing Green Energy credits. But with the installation of the Tuba City site 285 kW PV panel system in 2013 (which contributed to the new site-wide capacity of 336 kW), LM was able to meet the 7.5 percent goal without the purchased Green Energy credits. However, to meet the 20 percent 2020 goal, more renewable energy units may need to be installed on LM sites.

c. Estimated additional funding needed beyond planned activities and typical operation costs for meeting the goal

None at this time. Evaluation of progress made toward meeting the new 20 percent goal in 2020 may result in future funding requests.

d. Site specific measurable goals and milestones (3–5) for the next fiscal year

In addition to activities discussed in paragraph “a.” above, LM will pursue the following goals and milestones:

- Pursue LM approval and funding for any newly identified renewable energy projects needed to meet the new 20 percent goal.
- Continue to support the effort to lease LM sites for development of renewable energy generating projects by private companies.
- Continue using photovoltaic systems to provide power for groundwater pumping at the Rifle, Durango, and Shiprock sites. A similar system is in place at the Monument Valley site if needed.
- Continue purchasing RECs as needed to meet the 20 percent goal by 2020 and evaluate if RECs can be purchased from Indian Tribe sources at prevailing market rates.
- Continue monitoring progress of the proposed solar garden at the Durango site. American Capital Energy has submitted an offer to La Plata Electric Association to build a solar garden on the Durango site. The utility issued a request for proposal, looking to purchase solar energy from “solar gardens” through a system in which the public can purchase a piece of the solar garden and participate in the tax credits. This assists DOE in its efforts to establish energy parks on former nuclear-defense facilities.
- Evaluate solar hot-water heating options for any new buildings. Currently there are no planned new buildings.

e. Request for technical assistance with reference to CEDR project number, if needed

None.

f. Planned or needed training to increase awareness and encourage behavior change

See information provided in Section 11.1.

9 Climate Change Adaptation

According to EO 13514, Sections 8(i) and 16, and subsequent Council on Environmental Quality Implementing Instructions, DOE developed and submitted a Climate Change Adaptation Plan with its 2012 SSPP. The DOE Climate Change Adaptation Plan directs DOE programs to ensure that all facilities address climate change adaptation in their SSPs, and establishes goals and objectives applicable to DOE sites. LM progress toward those goals/objectives is summarized in the following sections.

Describe work with other agencies to improve DOE's understanding of climate change

In April 2013 LM personnel attended the National Adaptation Forum in Denver, Colorado. This 3-day event included presentations from federal agencies, state and local agencies, and private organizations engaged in climate change adaptation. The Forum was attended by hundreds of members of the adaptation community from various organizations all over the country. Each session and interaction was an opportunity to engage with other agencies and increase awareness and understanding of the science and adaptation actions that are currently underway in different areas. One of the most important elements of this forum was an overview of the National Climate Assessment by the U.S. Global Change Research Program. This overview explained what the National Climate Assessment is, how it was developed, and how it can be used in adaptation assessment, planning, and management. The Forum provided valuable direct and indirect avenues for working with other agencies and their respective resources, which will help LM understand climate change and the potential effects to its mission.

Work with other Federal agencies and local jurisdictions (as appropriate) to develop regional partnerships for climate change information sharing and collaboration

LM prepared a concept proposal as part of a Five-Year Plan to evaluate disposal cell cover sustainability. In order to satisfy U.S. Nuclear Regulatory Commission and Uranium Mill Tailings Radiation Control Act (UMTRCA) requirements for radon flux and groundwater protection, covers must be able to adapt to inevitable long-term changes (200 to 1,000 years) in the climate, soils, and ecology of the site. LM scientists and collaborators would use regional global change models to develop future climate scenarios, and use ecohydrology modeling and natural analogs to project long-term cover adaptation to the scenarios for selected UMTRCA sites. Through the Climate Change Adaptation working group and the National Adaptation Forum, LM was able to connect with two DOE offices (Office of Environmental Management [EM] and NREL) that are located in similar climate regions and/or have similar missions when it comes to climate change adaptation.

Plans to conduct a site specific detailed risk or vulnerability assessment

LM is building on the efforts that were initially conducted in preparation for *the U.S. Department of Energy, A High Level Analysis of Vulnerability to Climate Change, April 2012* (https://powerpedia.energy.gov/w/images/4/41/DOE_High_Level_Analysis_of_Vulnerability_to_Climate_Change.pdf). That information, combined with information from the National Climate Assessment, previous ecological baselining efforts, and disposal cell evaluations for LM sites, will help identify the higher risk areas of LM and lay a foundation for planning and prioritizing more detailed and resource-intensive risk assessments.

Updates to appropriate site emergency response, sustainability planning and other appropriate documents to address change resiliency

LM is taking a multistep approach to this objective by first establishing awareness throughout LM Management. A general climate science presentation was provided to a group of LM site managers shortly after the National Adaptation Forum. This was followed by another general Climate Change Adaptation awareness presentation, which encompassed higher levels of management and focused on policy, the DOE Climate Adaptation Plan, and implications for LM. The next steps are a discussion of projected climate change impacts (based on the National Climate Assessment) and a determination of which documents require climate change adaptation considerations and updates. Once sites have been prioritized for more detailed assessment, additional site-level documents might require updating as well.

Efforts to identify or establish and participate in regional climate change adaptation partnerships

LM's efforts to build awareness internally will facilitate further establishment of external partnerships with local or regional climate adaptation efforts. The National Adaptation Forum provided a wealth of resources and potential contacts that may be applicable to site-specific efforts. LM continues to work with members of the Subsurface Biogeochemical Research Program, which is part of the Climate and Environmental Sciences Division of the DOE Office of Science, on a bioremediation research project at the Old Rifle site. LM scientists continue to work with researchers and students at the University of Arizona, Desert Research Institute, and the University of Wisconsin on the long-term performance of disposal cells.

Site specific measurable goals and milestones:

- Complete LM Climate Change Adaptation awareness presentations.
- Incorporate Climate Change Adaptation into the EMS communications calendar to further LM-wide awareness and understanding.
- Begin review of the National Climate Assessment and implications to LM sites.
- Investigate the potential for regional partnerships. (LM has identified other DOE offices with potential for regional partnerships. NREL and EM both have a physical presence in the areas where LM has sites and will likely be impacted in similar ways.)

Pending acceptance of the proposed Five-Year Plan concept paper noted above, goals include:

- Drafting a summary report of a previous study by the DOE Office of Environmental Management. That study, which involved LM scientists, evaluated climate change and long-term disposal cell performance.
- Implement a project proposal with collaborators to refine the projection framework, incorporate climate variability and extreme events, and evaluate cover soil and ecology analogs.

10 Budget and Funding

10.1 Overall Status

LM integrates funding for long-term sustainability projects in the normal budget process. Costs are submitted in the Sustainability Crosscut budget and other related budget calls.

LM plans to implement energy efficiency projects through FY 2020 that may significantly reduce energy intensity compared to the FY 2003 baseline and Scope 1 and Scope 2 GHG emissions. LM selects projects primarily by evaluating life-cycle costs. The projects' initial goals include having a payback time that is less than or equal to 25 years. Based on (1) the return-on-investment criteria and (2) the level of development of scope and implementation cost estimates of the projects listed in tab 3.3 in the CEDR worksheet, LM will potentially pursue three renewable energy or energy conservation projects. Task order managers, site leads, and engineering will be engaged by the Energy Efficiency or Renewable Energy teams to develop projects. All proposed or planned energy projects will undergo further technical and economic analysis for consideration during the budget evaluation process.

FEMP's ESPC ENABLE initiative was investigated as a source of funding for energy-efficiency improvements at the Interpretive Center at the Weldon Spring site. After further research, it was decided that any improvements made would not achieve the paybacks necessary to make this a viable ENABLE project.

LM will continue to accomplish deferred maintenance tasks identified for energy consuming buildings/facilities annually, as funding allows. DOE Order 430.1B requires a CAS every 5 years of all buildings/facilities owned/leased by DOE. Deferred maintenance tasks identified in these assessments will be accomplished prior to the end of FY 2018, depending on funding availability.

10.2 Site-Specific Measurable Goals and (3–5) Milestones

LM will do the following:

- Determine the cost-effectiveness of projects but also consider the implementation of new technologies for demonstration purposes, the facilitation of technology transfer, and the accomplishment of deferred maintenance tasks.
- Examine the one remaining identified energy reduction project (reverse osmosis at Tuba City) that would need additional financial or technical rigor before it is ready to be submitted in the budget.
- Continue to refine the scope and estimated implementation costs, evaluate funding sources for financial and technical rigor, and seek appropriate funding sources over the next 3 years for those projects that are life-cycle cost-effective. LM's next budget request will be updated to include projects that will allow sustainability goals to be met.
- Pursue additional training on costs, scheduling, estimating, and preparing return-on-investments and simple paybacks in 2014.
- Examine reinvestment potential to utilize cost savings realized from sustainability efforts.

10.3 Success Stories, Accomplishments, Lessons Learned, and Best Management Practices

LM utilizes a multi-year sustainability budgeting plan to identify funds needed to approve projects in a timely manner and to improve ease of data collection for the multiple budget requests. With a 5-year look ahead, LM identifies the major sustainability goals and related activities (e.g., water audits or annual reporting events) and the projects that will be necessary to achieve and track the goals. During the life-cycle baseline budget process, sustainability project spreadsheets were developed and utilized to report sustainability budget numbers. A spreadsheet column was added that identifies projects that have not yet been scheduled or that extend beyond the 5-year window. This allows flexibility in moving projects from one fiscal year to another as available funding changes.

11 LM's Standard EMS Operations

11.1 EMS Organization

LM's EMS comprehensively incorporates life-cycle environmental considerations into all aspects of the LM mission. LM's EMS is a joint program between LM and its prime contractor for LMS contract. The EMS helps LM use its finite resources wisely, minimize wastes and adverse environmental impacts, and comply with the laws, regulations, DOE requirements, and other applicable requirements that protect the environment, public and worker health, and resources. EMS enables LM to implement sustainable environmental stewardship practices that enhance the protection of air, water, land, and other natural and cultural resources affected by DOE operations. Implementing the EMS is integral to LM's mission and to achieving excellence in environmental stewardship.

The EMS team is jointly led by two EMS sustainability coordinators, one from LM and one from the LMS contractor. They are the points-of-contact for the EMS. Responsibilities of the EMS sustainability coordinators include overseeing the development and implementation of the joint EMS, actively participating in the EMS core team, reporting progress to management, conducting management reviews, facilitating management involvement in EMS, and generating end-of-year reporting.

The EMS core team includes representatives from applicable programs and projects from LM and LMS contractor management. Their responsibilities include (1) overseeing the development and implementation of the EMS sustainable program teams related to sustainability requirements (listed in Section 11.2); (2) approving EMS goals and targets; and (3) functioning as the steering committee for management-level decisions.

In 2013, the LM EMS team continued applying DOE regulations and EOs. Progress on activities related to environmental, energy, and transportation management is evaluated and reported quarterly. The EMS team is divided into the following 10 sustainability teams and 2 ancillary teams:

- Electronics Stewardship
- Energy Efficiency and Greenhouse Gas Reduction

- Land Stewardship
- Renewable Energy
- Sustainable Acquisition
- Sustainable Buildings (including cool roofs and regional planning)
- Vehicle and Fuel Management
- Waste Minimization and Pollution Prevention
- Water Conservation
- Climate Change Adaptation
- Media (ancillary team)
- Training (ancillary team)

Each EMS sustainability team consists of a team lead, an LM advocate, an LMS contractor senior management advocate, and several other LM and LMS employees. Each team is responsible for managing and implementing its individual sustainability initiatives and coordinating with other teams on crosscutting goals. Each team updates their respective sections within an “EMS Sustainability Awareness” training, which is generally provided every 2 years to all employees. Additionally, LM’s sustainability teams provide awareness articles, which are published in an internal quarterly newsletter (*ECHOutlook*) at least once every 2 years. Related posters, contests, and activities sometimes accompany the articles. In 2013 the primary teams developed topic-specific awareness briefings of the goals and LM’s status related to those goals, which were presented to management with open invitations to others within LM. As part of the Federal Buildings Personal Training Act ramp-up, various individuals throughout the LM/LMS staff will be reviewing and updating their competencies in multiple areas including sustainability.

The EMS media and training teams provide and update the EMS Sustainability Awareness training, ensuring that it is updated and provided within the 2-year refresher period. The EMS media team works with the other sustainability teams to produce the awareness articles, which are published in the internal quarterly newsletter (*ECHOutlook*) at least once every 2 years. Related posters, contests, and activities sometimes accompany the articles to encourage behavioral changes.

The environmental compliance aspect of the EMS consists of regulatory compliance and monitoring programs that implement federal, state, local, and tribal requirements, agreements, and permits. The LMS Environmental Compliance group is integrated into program/project implementation from planning through completion to help ensure activities are performed so that the safety of the public and protection of the environment is maintained. The LMS Environmental Compliance group has developed a number of internal tools to facilitate continued compliance, including the following:

- ***Regulatory Review Report:*** A quarterly report that is a compilation of reviews of new or revised environmental laws, regulations, and DOE directives as they are published. The reviews include analysis of applicability to LM and LMS and provide recommended changes to plans and procedures if changes are warranted.

- ***Schedule of Federal/State Regulatory Reports, Permits, and Notifications:*** Identifies major environmental compliance reports and actions required for LM Sites as well as programmatic deliverables. The schedule is used to track commitments monthly and provides a brief description of the report/action, regulatory driver, responsible personnel, and due date.

The EMS sustainability team meets monthly and provides a status update to senior management every 3 months. The EMS environmental compliance group meets weekly, provides monthly status reports, provides quarterly reports on changing requirements, and annually assembles the *Office of Legacy Management's Summary of Annual Site Environmental Reports*. The annual EMS Management Review allows LM's leadership to assess the strengths and weaknesses of EMS, and provides them with information that helps them make decisions affecting the future of the program. LM uses this SSP to report status on and planned activities to meet sustainability goals.

LM, with its comprehensive approach to fulfilling sustainability goals, will advance the DOE sustainability mission with a diverse approach and a concentrated effort toward the goals of 2014 and beyond. To achieve the goals, LM will work with its EMS core team, EMS sustainability teams, the environmental compliance group, and the LM operations and maintenance staff. In addition, LM will enlist the technical expertise of its scientists and engineers to enable LM to operate sustainably and in compliance. This fostering of sustainable operations will include continued emphasis on behavior change.

11.2 Sustainability Regulatory Reporting Adherence

The purpose of this SSP is to outline the strategies for managing, funding, and implementing various energy-related activities at LM. This plan reflects progress made toward, and strategies in place for, accomplishing the goals and requirements established by:

- EO 13514, Federal Leadership in Environmental, Energy, and Economic Performance, October 5, 2009.
- EO 13423, Strengthening Federal Environmental, Energy, and Transportation Management, January 24, 2007.
- DOE Order 430.1B Chg. 2, Real Property Asset Management, April 25, 2011.
- DOE Order 436.1, Departmental Sustainability, May 2, 2011.
- Energy Independence and Security Act of 2007 (EISA), Section 432 (42 U.S.C. 8253[f]).
- Energy Policy Act of 2005 (EPAct 2005), Public Law (P.L.) 109-58.
- Energy Policy Act of 1992 (EPAct 1992), P.L. 102-486.
- National Energy Conservation Policy Act of 1978 (NECPA), P.L. 95-619.
- DOE Strategic Sustainability Performance Plan (SSPP), multiple years.
- Former Secretary of Energy Dr. Steven Chu, "Installation of Cool Roofs on Department of Energy Buildings," Memorandum for Heads of Departmental Elements, June 1, 2010.
- Former Secretary of Energy Dr. Steven Chu, "Management of Fleet Inventory," Memorandum for Under Secretaries, Office of Management (Headquarters Fleet), PMAs, and Headquarters Fleet Managers, Sustainability Performance Office, January 27, 2011.

- DOE Policy 450.4A, Integrated Safety Management Policy, April 25, 2011.
- LM Policy 450.9, Environment, Safety, and Health Policy, November 29, 2011.
- LM *Site Management Guide (Blue Book)*, December 2012.
- LM *2011-2020 Strategic Plan* (DOE/LM-0512), January 2011.

The LMS contractor *Quarterly Performance Assurance Report* encompasses the sustainability teams and compares the status of their activities against the goals LM established in accordance with the requirements and directives. The report includes both environmental sustainability and environmental compliance information on significant activities that have occurred during the preceding 90 days, status against identified targets, and planned activities for the next 90 days.

In 2013, LM successfully passed its annual EMS audit, which was an internal audit. Internal audits are performed in the years that an external audit does not take place. In 2012, LM successfully passed its triennial external EMS audit and submitted the Declaration of Conformance. This is a credit to everyone in the organization, past and present, in all aspects of both environmental compliance and sustainability. It is very important that a legacy organization demonstrate leadership in sustainability.

III. Fleet Management Plan

To address recommendations in the pending DOE Inspector General audit report, "*The Department's Fleet Vehicle Sustainability Initiatives*," LM has summarized its site-level policies and procedures for the management of its fleet inventory, including fuel and vehicle acquisition and fleet inventory optimization. LM's Fleet Management Plan is provided in Attachment D.

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Attachment A

Environment, Safety, and Health Policy

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Summary of Changes
to
Policy 450.8
Environment, Safety, and Health
Revised Version Issued as Policy 450.9

LM Policy 450.8 Environment, Safety, and Health of 05/29/09, has undergone minor revisions. This Policy has been revised to include a new Executive Order and make revisions for updated DOE Orders that LM abides by. Please replace LM Policy 450.8 with **LM Policy 450.9**.

The most recent and official controlled hard copy version of this document resides with LM's Directives Coordinator. An electronic version of the controlled document has been placed on the LM Intranet for employee use. Printed hard copies of this electronic version are considered uncontrolled documents.

INITIATED BY: [Insert Office]
NO. OF PAGES/ATTACHMENTS: 2 pages, 0 attachment



SUBJECT: ENVIRONMENT, SAFETY, AND HEALTH POLICY

1. OBJECTIVE. This policy reaffirms the Department of Energy (DOE), Office of Legacy Management’s (LM) commitment to safety of our workers, respect for the environment, and protection of public health and safety through our environment, safety and health (ES&H) program.
2. CANCELLATION. This policy cancels LM P 450.8, *Environment, Safety, and Health Policy*, dated 05-29-09.
3. APPLICABILITY. This Policy applies to all LM contractor and federal employees.
4. REQUIREMENTS. Not Applicable
5. RESPONSIBILITIES. It is the responsibility of all LM personnel to support the ES&H policy to the utmost of their abilities. This policy, as set forth and supported by all members of senior management, will be reviewed annually and updated as necessary. Senior management will ensure that these expectations are made clear and available to all LM personnel, including DOE-LM employees and contractors, research associates, LM stakeholders, and the public.
6. POLICY. It is DOE policy that work be conducted safely and efficiently and in a manner that ensures protection of workers, the public, and the environment. LM has a diversity of Goals, which support our mission “To manage the Department’s post-closure responsibilities and ensure the future protection of human health and the environment.” In support of our mission and goals, proper management of the impacts of our operations and facilities on worker and public safety and the environment is essential.

With this policy, LM is pledging to protect the public, workers, and the environment by complying with all applicable requirements, committing to prevention of pollution, and achieving continual improvement. LM continues to make ES&H an integral part of our day-to-day decision-making and long-term planning processes across all goals, activities

The most recent and official controlled hard copy version of this document resides with LM’s Directives Coordinator. An electronic version of the controlled document has been placed on the LM Intranet for employee use. Printed hard copies of this electronic version are considered uncontrolled documents.

LM Policy 450.9

and functions by following an Integrated Safety Management System (ISMS) and an Environmental Management System (EMS) that are integrated to the fullest extent practicable. LM will strive to improve our ES&H programs and sustain compliance through the concerted process of continuous performance improvements using performance measurements such as objectives and targets.

7. REFERENCES.

- a. DOE Order 436.1, Environmental Sustainability.
- b. DOE P 450.4A, Integrated Safety Management Policy.
- c. Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management.
- d. Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance.

Approved: Original signed by
David W. Geiser 11/29/11
Director
Office of Legacy Management

Distribution: As required

INITIATED BY: [Insert Office]

NO. OF PAGES/ATTACHMENTS: 2 pages, 0 attachment

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Attachment B

FIMS Excluded Building List and Certification Letter

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Department of Energy
Washington, DC 20585

October 16, 2013

MEMORANDUM FOR **OFFICE OF LEGACY MANAGEMENT**
FROM: **SUSTAINABILITY PERFORMANCE OFFICE**
SUBJECT: Self-Certification Form for the Energy Intensity Goal of EISA 2007

Each building or group of buildings excluded under the criteria for exclusion under Energy Independence and Security Act of 2007 (EISA 2007), Part G or Part H of is/are metered for energy consumption and their consumption is reported annually.

If any building has been excluded under the criteria for Part H for impracticability then all practicable energy and water conservation measures with a payback of less than 10 years have been installed. A justification statement that explains why process-dedicated energy in the facility may impact the ability to meet the goal has been provided in the FIMS Report 063.

I certify that the buildings listed on the Excluded Building List produced by FIMS as Report 063 dated October 15, 2013 for the Legacy Management Sites on pages 1 through 7 and on the FIMS Snapshot Sqft for CEDR EXCEL spreadsheet tab 2012 FIMS Snapshot dated October 15, 2013 meet the exclusion criteria in *Guidelines Establishing Criteria for Excluding Buildings* published by FEMP on January 27, 2006.

DOE Site Office Official – printed name

Ray M. Plieness
2013.10.16 10:17:01 -06'00'

DOE Site Office Official – signature

Date

Contact Information:

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U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08024 Monticello, UT, Disposal and Processing Sites

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
MNT-BLDG-STORSHED	208390	STORAGE SHED	D - Essentially only lighting	Building	260	260

Shed only uses minimal lighting. Shared meter.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08031 Pinellas County, FL, Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
PIN-STAR Fully serviced lease	143457	STAR CTR OFFICE PORTION OF LEASE	C - Fully serviced lease	Building	1,613	1,613

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08035 Rifle, CO, Disposal/Processing Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
RFO-TRLR-ERSP	207375	SINGLE WIDE TRAILER - ERSP	B - Privately owned	Trailer	672	672

Rental Agreement

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08052 Fernald, OH, Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
FER01	203707	DELTA BUILDING	C - Fully serviced lease	Building	10,408	10,408

Lessor pays all utilities

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08066 Grand Junction, CO, Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
GJO-BLDG-B46 Full service lease	211272	RTC LEASE-BULDING 46	C - Fully serviced lease	Building	3,970	3,970
GJO-BLDG-B810 rent includes all utilities	204554	RTC LEASE-BUILDING810	C - Fully serviced lease	Building	25,495	25,495
GJO-BLDG-B12A Fully Service Lease	208136	RTC LEASE-BUILDING12A	C - Fully serviced lease	Building	6,757	6,757
GJO-BLDG-B938 Fully Service Lease	208135	RTC LEASE-BUILDING938	C - Fully serviced lease	Building	19,834	19,834
GJO-BLDG-B12 Fully Services Lease	208138	RTC LEASE-BUILDING12	C - Fully serviced lease	Building	7,461	7,461
GJO-BLDG-B2 Fully Service Lease	208140	RTC LEASE-BUILDING2	C - Fully serviced lease	Building	1,684	1,684

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08066 Grand Junction, CO, Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
GJO-BLDG-STORSHED	207408	STORAGE SHED	D - Essentially only lighting	Building	336	336

Building is DOE-owned; however, power source comes from utility line from other leased facilities and is paid through fully serviced leased contract on other leased buildings. Shared meter.

GJO-BLDG-B32	208137	RTC LEASE-BUILDING32	C - Fully serviced lease	Building	4,616	4,616
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Fully Serviced Lease

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

U.S. Department of Energy
Facilities Information Management System
Energy Consuming Excluded Buildings and Trailers List

10/15/2013

Program Office LM

Site 08068 Westminster, CO, Office Site

Property ID Justification Comments:	Real Property Unique ID	Property Name	Exclusion Part	Property Type	Gross SQFT	Excluded SQFT
WST-BLDG-OFFICE utilities paid by Lessor	204031	WESTMINSTER OFFICE SPACE C - Fully serviced lease LEASE		Building	16,010	16,010

This report qualifies DOE Owned, DOE Leased, and Contractor Leased buildings and trailers where the Energy Consuming Metered Process (Excluded) Facilities gsft is greater than zero.

Attachment C

LM Buildings and Gross Square Footage Used for Reporting

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Office of Legacy Management
Buildings Included on EMS Reports

Site	Property Name	Property ID	GSF	Incl. in Water Baseline (FY2007)	Water Baseline (sq. ft.)	Water FY2008 (sq. ft.)	Water FY2009 (sq. ft.)	Water FY2010 (sq. ft.)	Water FY2011 (sq. ft.)	Water FY2012 (sq. ft.)	Water FY2013 (sq. ft.)	Water Notes	Incl. in Energy Baseline (FY2003)	FY2003 Energy Baseline (sq. ft.)	FY2008 Energy (sq. ft.)	FY2009 Energy (sq. ft.)	FY2010 Energy (sq. ft.)	FY2011 Energy (sq. ft.)	FY2012 Energy (sq. ft.)	FY2013 Energy (sq. ft.)	Energy Notes	FY2010 Existing Building	FY2010 Existing Building (sq. ft.)	FY2011 Existing Building (sq. ft.)	FY2012 Existing Building (sq. ft.)	FY2013 Existing Building (sq. ft.)	Reason for Building Exclusion	
Column Totals	Totals		2,661,197		16,279	16,279	22,612	22,464	69,157	69,157	35,422			60,547	26,374	72,289	114,797	71,629	71,015	37,400			190,666	146,663	135,997	138,672		
Durango, CO Disposal/Processing Site	Storage Shed	DUD-BLDG-STORSHED	100									no potable water use	no								OSF	no					100 Less than 5,000 GSF	
Fernald, OH Site	Restoration Storage Shed	FER-BLDG-RESTORSHED	600									no potable water use	no			450	600	600	600	600	non energy consuming storage shed	no					600 Less than 5,000 GSF	
Fernald, OH Site	Warehouse (Old D.O. Bldg.) 18P	FER-BLDG-DO18P	900									no potable water use	no		900	900	900	900	900	900	OSF	no					900 Less than 5,000 GSF	
Fernald, OH Site	Warehouse (Old Comm. Bldg) 23B	FER-BLDG-COMM23B	768									no potable water use	no		750	750	750	750	768	768	OSF corrected	no					768 Less than 5,000 GSF	
Fernald, OH Site	Visitor Center Building	FER-BLDG-VISITORCNTR	10,800				10,800	10,800	10,800	10,800	10,800	Not included in FY 07 or FY 08 data. FY 09 water use at the new Visitor Center will be included for Fernald. The FY 09 sq. ft. and water use data (first year) will be added to the baseline to adjust the baseline for future comparisons.	no		10,000	10,800	10,800	10,800	10,800	10,800	OSF (total gross square footage is 12,757 which includes 7,200 previously known as 51A, but called CAWWT) Part G exclusion.	yes	10,800	10,800	10,800	10,800		
Fernald, OH Site	Grndwtrsys	FER-OSFS-GRNDWTRSYS			7,200	7,200	7,200	7,200	7,200	7,200	7,200		no		7,200	0	0	0	0	0	OSF	no					0 OSF	
Fernald, OH Site	Delta Building Lease	FER01	10,408									Fully-Serviced Lease	no								Fully-Serviced Lease	yes	10,108	10,108	10,408		10,408 Fully-Serviced Lease. SF corrected	
Fernald, OH Site	Pole Barn	FER-BLDG-POLEBARN	1,440									no potable water use	no		6,880	0	0	0	0	1,440	1,440	Buildings were removed as part of remediation. Additional buildings were included as part of an OSF CAWWT (51A, 18Q, 18R, 18S, 18VH, 18VJ, and CWWHouse)	no					1,440 Less than 5,000 GSF
Grand Junction, CO Disposal/Processing													no														0	
Grand Junction, CO Disposal/Processing Site	Decontamination Building A	GRJ-BLDG-DECON	1,272	yes	1,272	1,272	1,272	1,272	1,272	1,272	1,272	Potable water used in this trailer. The sq. ft. for both the trailer (662 sq. ft.) and Decon Building A (1,272 sq. ft.) used for this site's water data is 1,934 sq. ft. No changes since baseline year.	no		1,272	1,272	1,272	1,272	1,272	1,272		no					1,272 Less than 5,000 GSF	
Grand Junction, CO Disposal/Processing Site	Storage Building D	GRJ-BLDG-STORAGE	1,308									no potable water use	no		1,308	1,308	1,308	1,308	1,308	1,308		no					1,308 Less than 5,000 GSF	
Grand Junction, CO Disposal/Processing Site	Three Sided Storage Shed	GRJ-BLDG-3SIDED STOR	1,280									no potable water use	no		1,280	1,280	1,280	0	0	0	non energy consuming 3 sided storage shed	no					1,280 Less than 5,000 GSF	
Grand Junction, CO Disposal/Processing Site	Storage Shed	GRJ-BLDG-STORSHED	64									no potable water use	no		64	64	64	64	0	0	non energy consuming	no					64 Less than 1,000 GSF	
Grand Junction, CO Disposal/Processing Site	Single Wide Trailer, Building B	GRJ-TRLR-OFFICE	720	yes	682	682	720	720	720	720	720	Potable water used in this trailer. The sq. ft. for both the trailer (720 sq. ft.) and Decon Building A (1,272 sq. ft.) used for this site's water data is 1,992 sq. ft.	no			720	720	720	720	720		no				720 Less than 5,000 GSF		
Grand Junction, CO Site													no															0
Grand Junction, CO Office Site	Storage Shed	GUJ-BLDG-STORSHED	336									no potable water use	no					336	336	0		no					336 Less than 5,000 GSF	
Grand Junction, CO Office Site	Records Storage Container	GUJ-TRLR-RECORDSTOR	0									no potable water use	no									no	320	320			0 Less than 5,000 GSF. Fully Serviced Leased	
Grand Junction, CO Office Site	RTC Lease-Building12	GUJ-BLDG-B12	7,461									Fully-Serviced Lease, increased leased space in FY 2013. New square footage is 7,461 GSF	no								Fully-Serviced Lease, increased leased space in FY 2013. New square footage is 7,461 GSF	no	4,443	4,443		7,461	Fully-Serviced Lease, increased leased space in FY 2013. New square footage is 7,461 GSF	
Grand Junction, CO Office Site	RTC Lease-Building12A	GUJ-BLDG-B12A	6,757									Fully-Serviced Lease	no								Fully-Serviced Lease	no	6,757	6,757	6,757		6,757 Fully-Serviced Lease. Shutdown pending DAD	
Grand Junction, CO Office Site	RTC Lease-Building2	GUJ-BLDG-B2	1,684									Fully-Serviced Lease	no								Fully-Serviced Lease	no	1,684	1,684			1,684 Less than 5,000 GSF. Fully Serviced Leased	
Grand Junction, CO Office Site	RTC Lease-Building32	GUJ-BLDG-B32	4,616									Fully-Serviced Lease	no								Fully-Serviced Lease	no	4,616	4,616			4,616 Less than 5,000 GSF. Fully Serviced Leased	
Grand Junction, CO Office Site	RTC Lease-Building46	GUJ-BLDG-B46	3,970									Fully-Serviced Lease	no								Fully-Serviced Lease	no	3,970	3,970			3,970 Less than 5,000 GSF. Fully Serviced Lease	
Grand Junction, CO Office Site	RTC Lease-Building810	GUJ-BLDG-B810	25,495									Fully-Serviced Lease	no								Fully-Serviced Lease	yes	25,495	25,495	25,495		25,495 Fully-Serviced Lease	
Grand Junction, CO Office Site	RTC Lease-Building938	GUJ-BLDG-B938	19,834									Fully-Serviced Lease	no								Fully-Serviced Lease	yes	19,834	19,834	19,834		19,834 Fully-Serviced Lease	
Las Vegas, NV Site													no														0	
Las Vegas, NV Site	NV Office Lease-Canyon Center	LVS-BLDG-CANYONCNTR	0									No longer leased	no									no	4,923	4,923			Less than 5,000 GSF. Fully Serviced Leased. Leased ended - removed from FIMS	
Monument Valley, AZ Processing Site	Storage Shed 1	MON-BLDG-STORSHED1	72									no potable water use	no								OSF	no					72 Less than 5,000 GSF	
Monument Valley, AZ Processing Site	Storage Shed 2	MON-BLDG-STORSHED2	48									no potable water use	no								OSF	no					48 Less than 5,000 GSF	
Monticello, UT Disposal and Processing Sites													no														0	
Monticello, UT Disposal and Processing Sites	Triple Wide Trailer	MNT01-TR	1,800	yes	725	725	1,800	1,800	1,800	1,800	1,800	The sq. ft. reported in the FY08 Exec. Plan and on previous reports was incorrectly reported as 725. The actual (corrected) building size information currently used is 1,800 sq. ft. No physical changes were made to the size of the building.	no		1,800	1,800	1,800	1,800	1,800		no					1,800 Less than 5,000 GSF		
Monticello, UT Disposal and Processing Sites	Storage Hopper	MNT-OSFS-STORHOP	725									no potable water use	no		725	0	0	0	0	0	Actually a storage hopper converted to OSF in FY2012	no					725 Less than 5,000 GSF	
Monticello, UT Disposal and Processing Sites	STORAGE SHED	MNT-BLDG-STORSHED	260									no potable water use	no				240	240	0	0	0 D - Essentially only lighting	no					260 Less than 5,000 GSF	
Mound, OH Site													no														0	
Mound, OH Site													no									no					Mound buildings were not included in baseline because site belonged to EM. Transfer to LM is imminent	
Pinellas County, FL Site	Storage Shed 1	PIN-BLDG-STORSHED1	120									no potable water use	no		120	120	120	120	120	120	powered but not individually metered	no					120 Less than 5,000 GSF	
Pinellas County, FL Site	Storage Shed 2	PIN-BLDG-STORSHED2	120									no potable water use	no		120	120	120	120	120	120	powered but not individually metered	no					120 Less than 5,000 GSF	
Pinellas County, FL Site	Star CR Office Lease	PIN-STAR	1,613									Fully-Serviced Lease	no								Fully-Serviced Lease	no					1,613 Less than 5,000 GSF. Fully-Serviced Lease	
Piqua, OH Decommissioned Reactor													no														0	
Piqua, OH Decommissioned Reactor	Storage Vault	PIQ-OSFS-STORAGVAULT	43,168										no		43,168	0	0	0	0	0	Exclusion G	yes	43,168					Reclassified by LM as OSF. Previously included as 2 separate buildings totaling 43,168 sq ft
Rifle, CO Site													no														0	
Rifle, CO Disposal/Processing Site													no														0	
Rifle, CO Disposal/Processing Site	Single Wide Trailer (rented)	RFO-TRLR-ERSP	672	yes	720	720	720	672	672	672	672	Old Rifle Processing Site trailer new in June 2008. Sq. ft. and water use added to baseline information as adjustment for comparison purposes. Square footage adjusted in FY10 per additional source documentation provided.	no								rental agreement	no					672 Less than 5,000 GSF	
Rocky Flats, CO Site													no														0	
Rocky Flats, CO Site	Other Buildings		2,426,633									Previously demolished.	no		0	0	0	0	0	0		no					0 Previously demolished	
Rocky Flats, CO Site	Equipment Storage Building	RFS-BLDG-EQUIPSTOR	1,118									no potable water use	no		1,068	1,068	1,068	0	0	0	no longer powered but energy consuming	no					1,118 Less than 5,000 GSF	
Rocky Flats, CO Site	Rocky Flats Office Space	RFO-BLDG-OFFICE	46,440									Fully-Serviced Lease, site and property name change from Rocky Flats to Westminster	no								Fully-Serviced Lease, site and property name change from Rocky Flats to Westminster	yes	13,010	13,010	16,010		16,010 Less than 5,000 GSF	
Tuba City, AZ Disposal Site													no														0	
Tuba City, AZ Disposal Site	Control Building	TUB-BLDG-CONTROL	1,018									Non-potable water used at Tuba City site. Water would require treatment prior to use.	yes	1,018	1,018	1,018	1,018	1,018	1,018	1,018		no					1,018 Less than 5,000 GSF	
Tuba City, AZ Disposal Site	Greenhouse	TUB01-GH	0									Non-potable water used at Tuba City site. Water would require treatment prior to use.	yes	781	781	0	0	0	0	0	Transferred to Tribe	no					0 Less than 5,000 GSF	
Tuba City, AZ Disposal Site	Shop/Laboratory Building	TUB-BLDG-SHOPLAB	1,176									Non-potable water used at Tuba City site. Water would require treatment prior to use.	yes	1,176	1,176	1,176	1,176	1,176	1,176	1,176		no					1,176 Less than 5,000 GSF	
Tuba City, AZ Disposal Site	Treatment System	TUB-OSFS-TREATSYS	0										no								Exclusion G	no					0	
Tuba City, AZ Disposal Site	Storage Shed	TUB-BLDG-STORSHED1	282									no potable water use	no		282	282	282	0	0	0	non-energy consuming	no					282 Less than 5,000 GSF	
Tuba City, AZ Disposal Site	Storage Shed 2	TUB-BLDG																										



Anticipated Sites in LM Through FY 2012 Requiring LTS&M

● UMTRCA Title I	▲ FUSRAP
▼ UMTRCA Title II	⊕ D&D
◆ CERCLA/RCRA	■ Other

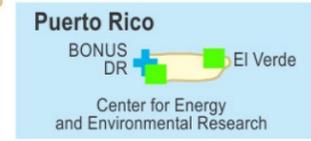
Site Category

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

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

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

D/P = Disposal/Processing
DR = Decommissioned Reactor



Reference: LM SMG June 2012
 Revised 6/19/2012

End of FY	Number of LM Sites	Refr.	Notes
2003	33	a	Baseline for Energy data
2004	63	a	LM established Dec. 15, 2003
2005	67	a	Baseline for Fleet data
2006	70	b	
2007	71	b	Baseline for Water data
2008	83	b	Baseline for GHG data
2009	85	b	
2010	87	b	
2011	87	b	
2012	89	b	
2013	90	b	

References:

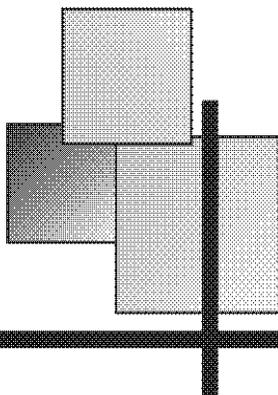
- a. Office of Legacy Management - The First Five Years FY 2004-2008
- b. LM Site Mangement Guide (aka Blue Book)

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Attachment D

LM Fleet Management Plan

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LMS/POL/S11157-0.0

Fleet Management Site Sustainability Plan

*S*toller

Legacy Management Team

Fleet Management Site Sustainability Plan Document History

Version No./ Revision No.	Date	Description of Change
0.0	11/14/2013	Initial issue.

Approved:



Michael C. Butherus

2013.11.15 14:39:15

-07'00'

Mike Butherus

Beneficial Reuse and Property Management Manager
S.M. Stoller Corporation

Date

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2.0 Vehicle Acquisition.....	2
2.1 Choosing a Vehicle.....	2
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Abbreviations

AFV	alternative fuel vehicle
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOE	U.S. Department of Energy
EMS	Environmental Management System
GSA	U.S. General Services Administration
HQ	headquarters
LM	Office of Legacy Management
NSC	National Safety Council
RCRA	Resource Conservation and Recovery Act
UMTRCA	Uranium Mill Tailings Radiation Control Act

1.0 Fleet Management Organizational Structure

1.1 The Office of Legacy Management (LM) Fleet Dynamic

The LM Fleet Management group is centrally located at the LM office in Grand Junction, Colorado. From this location, LM supports and manages fleet vehicles from 8 manned locations which are used to accomplish the ever-increasing LM mission of long-term stewardship for 90 total sites across the United States. It is anticipated that this support will increase with the addition of one new site—the Painesville, Ohio, Site—in 2014.

LM’s fleet consists predominantly of U.S. General Services Administration (GSA) leased vehicles, with the exception of one owned vehicle residing in Fernald, Ohio, whose sole purpose is to transport and operate a bed-mounted Geoprobe for drilling operations. LM’s fleet currently consists of 36 fleet vehicles, the breakdown of which can be seen below in Table 1.

Table 1. LM Fleet Structure

Fleet Vehicle Location	Number of Vehicles ^d	LM Mission Support
Fernald, Ohio, Site	10 ^a 1 Owned ^{a,d}	<ul style="list-style-type: none"> • Home site support—Fernald • 2 CERCLA/RCRA sites • 2 UMTRCA sites • 12 staff members using administrative non-site-specific travel charge codes
LM office in Grand Junction, Colorado	13 ^b	<ul style="list-style-type: none"> • Home site support—Grand Junction • 24 UMTRCA Title I and II sites • 3 CERCLA/RCRA sites • 1 D&D site • 5 calibration model sites • Oversight of the Uranium Leasing Program (approximately 25,000 acres) • Field reconnaissance activities for the Abandoned Uranium Mines Project that includes approximately 4,200 mine sites, a majority of which are within driving distance from Grand Junction • 65 staff members using administrative non-site-specific travel charge codes
Monticello, Utah, Disposal and Processing Sites	1 ^c	<ul style="list-style-type: none"> • Home site support—Monticello • 2 staff members using administrative non-site-specific travel charge codes
Morgantown, West Virginia, Legacy Management Business Center	1 ^c	<ul style="list-style-type: none"> • Home site support—Morgantown • 15 staff members using administrative non-site-specific travel charge codes
Pinellas County, Florida, Site	1 ^c	<ul style="list-style-type: none"> • Home site support—Pinellas • 1 CERCLA/RCRA site • 1 staff member using administrative non-site-specific travel charge codes
Tuba City, Arizona, Disposal Site	1 ^c	<ul style="list-style-type: none"> • Home site support—Tuba City • 9 staff members using administrative non-site-specific travel charge codes

Table1 (continued). LM Fleet Structure

Fleet Vehicle Location	Number of Vehicles ^d	LM Mission Support
Weldon Spring, Missouri, Site	1	<ul style="list-style-type: none"> • Home site support—Weldon Spring • 1 other site • 11 staff members using administrative non-site-specific travel charge codes
LM office in Westminster, Colorado	7 ^a	<ul style="list-style-type: none"> • Home site support—Westminster • 1 UMTRCA site • 2 CERCLA/RCRA sites • 1 staff member using administrative non-site-specific travel charge codes
Total	36	

Notes:

- a. These sites assign their vehicles to various teams in support of the LM mission. A team consists of two or more people devoted to individual tasks or common multiple tasks in support of a unified project or goal.
- b. Due to the large number of sites that the Grand Junction office supports, it is necessary to pool 13 vehicles to allow for appropriate support and accommodation with the minimum amount of vehicles possible.
- c. All manned sites with only one assigned vehicle are required to support the mission tasks of that site on a daily basis. This cannot be effectively accomplished by the use of a pooled vehicle due to distance to the nearest home garage.
- d. All vehicle counts are for leased vehicles only, unless specifically stated otherwise.

Abbreviations:

- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
- RCRA Resource Conservation and Recovery Act
- UMTRCA Uranium Mill Tailings Radiation Control Act
- D&D Decontamination and decommissioning

2.0 Vehicle Acquisition

2.1 Choosing a Vehicle

Vehicle replacements are chosen based on a like-for-like practice, or as mission changes dictate, and based on GSA guidelines. The plan is to replace all new light-duty vehicle acquisitions with a minimum of 75 percent alternative fuel vehicles (AFVs), and 100 percent of acquired light-duty vehicles being AFVs by 2015. LM will continue to strive to meet this goal going forward. When LM leases new vehicles, a list of minimum mission requirements for the vehicle requested is provided to GSA. GSA attempts to obtain a vehicle that is as close as possible to what was requested and that meets the requirements for safety and the mission. As stewards of government appropriations, we will make every effort not to incur unnecessary additional costs for AFVs when it can be shown that there is no alternate fueling infrastructure within a reasonable distance from the home garage where the vehicle will be housed.

2.2 Approvals for Leased Vehicles

When leasing additional vehicles through GSA, approval by the local LM fleet manager, LM’s senior managers, and the headquarters (HQ) industrial fleet manager is required. Beginning with the reduction effort in 2011, HQ started tracking all DOE fleets using Federal Automotive Statistical Tool reporting. When adding specialized equipment to the leased vehicles, the only approval that is required is that of the local LM fleet manager.

3.0 Fuel Infrastructure

3.1 Impact on Acquisition Strategy

Fueling infrastructure does not currently impact the LM vehicle acquisition strategy. Vehicles compatible with E85, or flex-fuel, are obtained whenever possible for all light-duty use, per *Presidential Memorandum—Federal Fleet Performance*, dated May 24, 2011. However, whenever possible we will identify and prevent unnecessary costs for AFVs when it can be shown that there is no alternative fueling infrastructure within a reasonable distance from where the vehicle will be housed—which is often the case in some of our remote locations.

4.0 Vehicle Use and Policies

4.1 Check-Out Process

The Grand Junction office pooled fleet procedures require personnel to schedule a GSA vehicle with the dispatcher 2 days or more in advance when the situation allows. All fleet vehicles are on a first-come, first-served basis with the exception of mission-critical needs that supersede all other requests.

Locations that have only one vehicle, such as the Tuba City, Arizona, Disposal Site; the Monticello, Utah, Disposal and Processing Sites; the Weldon Spring, Missouri, Site; and the Legacy Management Business Center in Morgantown, West Virginia, fall under the responsibility of the DOE site managers, who delegate to the site leads and are critical to accomplishing the LM mission at the individual sites. The site leads then allocate the vehicle to be used for specific mission tasks as they deem fit. Personnel at the LM office in Westminster, Colorado, and the Fernald, Ohio, Site check out vehicles as their project teams and the LM mission require. The Westminster office supports the efforts at the Rocky Flats, Colorado, Site, the Shirley Basin South, Wyoming, Disposal Site, and the Spook, Wyoming, Disposal Site. The Fernald site supports the efforts at the Fernald Preserve and Mound, Ohio, sites.

We encourage our staff to carpool whenever possible. Opportunities for carpooling include site visits, inspections, groundwater sampling, trip consolidations and work trip planning.

All personnel are required to provide proof of current driver's license, sign an authorization to perform a driver's background check, and take the required National Safety Council (NSC) Defensive Driver training prior to operating a GSA motor vehicle. This training is a one-time, nonrenewable training. As a part of this training, it is recommended that fleet drivers perform a pre-trip inspection of the vehicle. This inspection helps to visually identify any possible safety, mechanical, or property concerns. Additionally, the pre-trip inspection is useful for familiarizing the driver with all the operational functions of the vehicle prior to leaving, such as mirrors, tilt steering, climate controls, etc.

4.2 Anti-Idling

LM has an anti-idling policy that encourages personnel to be energy conscious and turn off the engine during longer than normal idle times. This policy is to be followed as long as it doesn't affect the occupant's health and safety and allows for accomplishment of LM's mission. Idle time can be monitored through newly initiated Network Fleet GPS monitoring equipment attached to each of LM's fleet vehicles.

4.3 Education

According to GSA Regulations, all LM staff must take the NSC Defensive Driver training before being allowed to drive a GSA vehicle. The NSC training is a onetime training. In addition, all contractors are required to take EC100, Environmental Management System (EMS) General Awareness, training. The EMS training discusses ways that operators of GSA-leased vehicles or DOE-owned vehicles can help reduce petroleum consumption and increase the use of alternative fuels to help DOE meet their EMS goals. Additionally, this training spells out the sustainability goals for petroleum reduction that LM abides by and strives to achieve on an ongoing basis.

5.0 Additional Policies and Activities

Additional fuel reduction, alternative fuel use, and vehicle reduction activities and policies are driven by changes in DOE goals and strategies. LM Fleet Management uses a continual evaluation methodology in respect to utilization of appropriate vehicles to achieve the mission, availability of fueling infrastructure for alternate fuels in the areas LM operates in, cost analysis of current vehicle usage, identification of more feasible means for improving vehicle usage, and minimization of fleet vehicles that can still achieve the DOE mission. This methodology is useful in providing good stewardship of government assets while maintaining the highest level of public safety and health throughout LM.

LM has found that we can reduce petroleum usage and increase alternative fuel usage by encouraging carpooling to conferences or site trips, educating drivers on the proper use of E85 fuel and how to locate fueling stations, and encouraging pre-trip inspections of the vehicles to identify unsafe or inefficient defects that may negatively impact the achievement of goals concerning conventional fuel reduction and increase in alternative fuel use. LM's Fleet Management group regularly monitors DOE's Office of Energy Efficiency and Renewable Energy website for updated information on alternative fueling infrastructures available at all of LM's sites. Additionally, we have identified that we could have an increased savings by encouraging the use of electric golf carts, gators, or other non-fleet electric vehicles when the environmental factors and mission tasks allow.

LM has been ever-vigilant in reducing unnecessary travel by utilizing videoconferencing and virtual presence technology for meetings whenever possible. Although we have not eliminated the need to travel for all meetings and trainings, we have reduced the amount that we travel by scheduling business events that have videoconferencing and virtual presence technology available.

Attachment E

LM PPTRS

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**Pollution Prevention Tracking and Reporting System
2013**

Home Site ▶ GreenBuy Program Migratory Bird Awards Data Collection ▶

Site/Project Profile

Site Name: Office of Legacy Management
FY Year: 2013

Site Name:

Lead PSO:

Other PSOs with reportable
activities at this site:

--Select--
EE
EM
FE
NE
NA
PM
RW
SC
MA

*Note: Please keep
holding the CTRL
key to make a
multiple selection.*

DOE Point of Contact Information:

DOE Point of Contact:

DOE Phone #: (nnn) nnn-nnnn or nnn-xxx-nnnn

DOE Email Address:

DOE Fax #:

DOE Employee Address:

Contractor Point of Contact Information:

Company Name:

Contractor Point of Contact:

Contractor Phone #: (nnn) nnn-nnnn or nnn-xxx-nnnn

Contractor Email Address:

Contractor Fax #:

Contractor Address:

Additional Question

Indicate local, state, regional, and/or national awards (not including DOE/NNSA recognition) received during the reporting period for environmental sustainability and environmental compliance efforts:

 Check Spelling

Check Validation

Submit

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33


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Pollution Prevention Tracking and Reporting System 2013

Home	Site ▶	GreenBuy Program	Migratory Bird Awards	Data Collection ▶
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Priority Products Purchasing for the GreenBuy Program

Site Name: Office of Legacy Management

FY Year: 2013

This form has been completed

OFFICE - Electronic Equipment Thin Clients and Workstations

Priority Product Goal: 95% of purchases meet the following:

- D+ EPEAT Registered Gold and ENERGY STAR Qualified

A. Required

1. Did your site meet this priority product goal?

Yes No

2. List the criterion met for this goal?

N/A. No criterion was used as no thin clients or workstations were purchased in FY 2013.

3. Provide a brief description of how you gathered the data for this priority product goal?

N/A. No thin clients or workstations were purchased in FY 2013.

B. Optional

4. Provide the total dollar amount spent on this product in FY2013? \$ 0

“D - Designated – Those products Federal agencies are required to give preference to which have been designated by the US Department of Agriculture for biobased products, US Department of Energy for FEMP products, US Environmental Protection Agency for ENERGY STAR qualified, EPEAT, recycled content, and WaterSense products. For the requirements (such as percent of post-consumer recycled content), see the Green Procurement Compilation (<http://www.sftool.gov/GreenProcurement>).”

“D+ - Designated product but the requirement is more than designated because products are readily available on the market with the increased attribute. For example, the required recycled content for toilet tissue is a minimum of 10% post-consumer recycled content. However, toilet tissue with 80% post-

consumer recycled content is readily available on the market.”

Approved and Lock

Submit

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or call HSS InfoCenter at 800-473-4375*

Pollution Prevention Tracking and Reporting System
2013[Home](#)[Site](#) ▶[GreenBuy Program](#)[Migratory Bird Awards](#)[Data Collection](#) ▶

Priority Products Purchasing for the GreenBuy Program

Site Name: Office of Legacy Management

FY Year: 2013

OFFICE - Electronic Equipment Imaging Equipment (copiers, etc.)

Priority Product Goal: 95% of purchases meet one or more of the following:

- D+ EPEAT Registered Gold
- EcoLogo 035

A. Required

1. Did your site meet this priority product goal?

Yes No

2. List the criterion met for this goal?

3. Provide a brief description of how you gathered the data for this priority product goal?

B. Optional

4. Provide the total dollar amount spent on this product in FY2013? \$

"D - Designated – Those products Federal agencies are required to give preference to which have been designated by the US Department of Agriculture for biobased products, US Department of Energy for FEMP products, US Environmental Protection Agency for ENERGY STAR qualified, EPEAT, recycled content, and WaterSense products. For the requirements (such as percent of post-consumer recycled content), see the Green Procurement Compilation (<http://www.sftool.gov/GreenProcurement>)."

"D+ - Designated product but the requirement is more than designated because products are readily available on the market with the increased attribute. For example, the required recycled content for toilet

tissue is a minimum of 10% post-consumer recycled content. However, toilet tissue with 80% post-consumer recycled content is readily available on the market.”

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Pollution Prevention Tracking and Reporting System
2013[Home](#)[Site](#) ▶[GreenBuy Program](#)[Migratory Bird Awards](#)[Data Collection](#) ▶

Priority Products Purchasing for the GreenBuy Program

Site Name: Office of Legacy Management

FY Year: 2013

OFFICE - Electronic Equipment Televisions

Priority Product Goal: 95% of purchases meet the following:

- D+ EPEAT Registered Gold

A. Required

1. Did your site meet this priority product goal?

Yes No

2. List the criterion met for this goal?

3. Provide a brief description of how you gathered the data for this priority product goal?

B. Optional

4. Provide the total dollar amount spent on this product in FY2013? \$

"D - Designated – Those products Federal agencies are required to give preference to which have been designated by the US Department of Agriculture for biobased products, US Department of Energy for FEMP products, US Environmental Protection Agency for ENERGY STAR qualified, EPEAT, recycled content, and WaterSense products. For the requirements (such as percent of post-consumer recycled content), see the Green Procurement Compilation (<http://www.sftool.gov/GreenProcurement>)."

"D+ - Designated product but the requirement is more than designated because products are readily available on the market with the increased attribute. For example, the required recycled content for toilet tissue is a minimum of 10% post-consumer recycled content. However, toilet tissue with 80% post-

consumer recycled content is readily available on the market."

Last updated October 1, 2013

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Pollution Prevention Tracking and Reporting System
2013[Home](#)[Site](#) ▶[GreenBuy Program](#)[Migratory Bird Awards](#)[Data Collection](#) ▶

Priority Products Purchasing for the GreenBuy Program

Site Name: Office of Legacy Management

FY Year: 2013

OFFICE - Electronic Equipment Servers (Enterprise)

Priority Product Goal: 95% of purchases meet the following:

- D ENERGY STAR Qualified

A. Required

1. Did your site meet this priority product goal?

Yes No

2. List the criterion met for this goal?

3. Provide a brief description of how you gathered the data for this priority product goal?

B. Optional

4. Provide the total dollar amount spent on this product in FY2013? \$

"D - Designated – Those products Federal agencies are required to give preference to which have been designated by the US Department of Agriculture for biobased products, US Department of Energy for FEMP products, US Environmental Protection Agency for ENERGY STAR qualified, EPEAT, recycled content, and WaterSense products. For the requirements (such as percent of post-consumer recycled content), see the Green Procurement Compilation (<http://www.sftool.gov/GreenProcurement>)."

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