

## Environmental Compliance

All EC activities are performed in such a manner that the safety of workers and the public and the protection of the environment are given the highest priority. EC is committed to complying with all applicable environmental regulations and requirements, policy directives, and the contract, and to using best management practices as deemed necessary to protect the environment and ensure conformance with both the letter and spirit of regulatory requirements.

The EC team has consistently met regulatory-compliance permitting and reporting requirements and provided regulatory updates and expertise as requested. During this reporting quarter, the EC team completed EC deliverables and regulatory reports on or ahead of schedule, including the quarterly regulation review report and monthly NPDES discharge monitoring reports. Project/activity evaluations and job safety analysis reviews were conducted routinely and in a timely fashion to support project work.

Several EC personnel participated in an EPA-sponsored webinar concerning EPA's 2012 Construction General Permit, which addressed storm water discharges from construction sites. The 2012 Construction General Permit replaces EPA's 2008 Construction General Permit and will remain in effect until 2017.

EC completed the 2012 biennial RCRA 3016 reports to applicable states and to DOE-HQ for subsequent submittal to EPA. These reports were completed and submitted on schedule, while including a new DOE review process.

EC submitted final draft of the *U.S. Department of Energy Office of Legacy Management Programmatic Cultural Resource Management Plan* to LM. The purpose of this cultural resource management plan is to identify, summarize, and explain the procedures and actions LM managers will implement to meet the intent and spirit of the wide array of cultural resource mandates and policies.

EC personnel continued to analyze the EPA General Permit for NPDES pesticide discharges with regard to applicability to LM site operations. EC personnel attended the NPDES Pesticide Permit workshop hosted by the Colorado Weed Management Association. Pesticide evaluations were completed for all active sites, and development began on an LM white paper that summarizes the applicability of the new rule.

EC staff completed the quarterly inspection of the Environmental Sciences Laboratory at the Grand Junction Office by conducting an internal review of the lab's Chemical Hygiene Plan. Although no findings were noted, several opportunities for improvement were identified and incorporated into applicable plans and procedures.

The EC Web page was updated with current and applicable information pertaining to the EC program.

At the Weldon Spring site, EC personnel coordinated the shipment and disposal of debris contaminated with low levels of radioactivity classified as 11e(2) byproduct materials. The waste mainly consisted of contaminated culvert pieces from the removal of the radioactively

contaminated culvert that was located under Highway D. The culvert had to be removed because the road was being widened. The waste was shipped as a DOT hazardous material and radioactive surface contaminated object, and it was disposed of at a licensed disposal facility permitted to receive this type of waste. The waste was shipped from February 13 through 15, 2012.

Also at Weldon Spring, EC personnel prepared the site's annual inspection report. The report was finalized and distributed in January 2012.

EC personnel prepared and submitted an RCRA Hazardous and Solid Waste Amendments Permit application for the Pinellas site. The draft permit was issued in September 2011, and EC personnel reviewed and commented on it. The public notice regarding the permit was published in the local newspaper on November 23, 2011. The permit was finalized on January 9, 2012.

EC personnel prepared a paper for the Waste Management Conference, titled *Lessons Learned during the Annual Inspection Process*, and presented the paper at the conference on February 29, 2012.

EC personnel provided regulatory input into the draft Building 100 Area Plume Management Alternatives Analysis Document for the Pinellas site.

EC personnel are providing regulatory support for the planned building demolition project at the Weldon Spring site, including preparing a Storm Water Permit application, preparing a storm water pollution prevention plan, and overseeing an environmental inspection for hazardous materials.

LM reviewed and approved NEPA checklists for Green River, the Laboratory for Energy-Related Health Research, Piqua, Site A/Plot M, and Gnome-Coach. In addition, administrative actions that would likely occur during the next LMS contract were evaluated in an Environmental Checklist that LM approved. Additional revisions to the Environmental Checklist template were completed according to LM direction. Requests for Realty Services NEPA reviews were completed for the Fernald site; the Grand Junction disposal site; the Legacy Management Business Center (LMBC) in Morgantown, West Virginia; and the Weldon Spring site. NEPA evaluation of new projects began for the Grand Junction disposal site and the Weldon Spring site. A review of the proposed LM NEPA training was also completed and the LM NEPA compliance officer provided feedback.

The *Annual NEPA Planning Summary*, which is a DOE Headquarters submittal requirement, was completed and provided to LM for review and approval. EC personnel searched for and retrieved past DOE Headquarters concurrence letters for NEPA Environmental Checklists related to groundwater cleanup strategies (UMTRCA Title I sites). NEPA files for sites that were transitioned were also reviewed, according to LM direction.

EC also provided responses for an annual accomplishments questionnaire on LM activities related to the protection of migratory birds. Protecting nesting and breeding migratory birds and conserving their habitat is becoming a national issue. Several LMS office sites monitor various

bird populations, control and monitor invasive weed populations (by regulatory requirement) to improve habitat, have adjusted construction schedules to avoid nesting birds, and have developed various bird-deterrence techniques to keep birds from nesting in areas selected for construction activities.

EC also completed the annual *Federal Archeology Program Activities Questionnaire and Narrative* for LM cultural resource activities that occurred during FY 2011, and sent it to LM for submittal to DOE Headquarters. All federal agencies complete this questionnaire, which provides the National Park Service with a summary of cultural inventory activities. Many of the questions (e.g., how many sites are eligible for the National Register of Historic Places?) require a cumulative evaluation.

At Rocky Flats, notification and reporting in accordance with the June 2011 *Surface Water Configuration Adaptive Management Plan*, LMS/RFS/S07698 (AMP), continued in this quarter. The AMP-required annual status report for 2011, due February 29, 2012, was posted on the Rocky Flats public website 2 days ahead of schedule. The annual status report included the quarterly summary for the fourth quarter of 2011. In accordance with the AMP, a public meeting to present the evaluation of the 2011 monitoring results and answer questions regarding the annual status report was scheduled for April 2, 2012. The Rocky Flats EC staff is providing support to the LM site manager in preparation for the public meeting.

The *Rocky Flats Site Quarterly Report of Site Surveillance and Maintenance Activities, Third Quarter Calendar Year 2011* was posted on the LM website on January 12, 2012, 3 days ahead of the milestone due date.

The Rocky Flats EC staff continued to provide support to the LM site manager with the Rocky Flats Legacy Management Agreement (RFLMA) consultative process with the RFLMA regulatory agencies during the quarter. This support involved reporting on the progress of evaluations pursuant to the following RFLMA Contact Records, which describe the plan and schedule to address reportable conditions and the status of actions related to the plan:

- **Contact Record 2011-05:** Update for Reportable Condition for Uranium at Point of Evaluation GS10 (approved October 4, 2011)
- **Contact Record 2011-08:** Reportable Condition for Americium-241 at Point of Evaluation GS10 (approved December 23, 2011)

The third Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Five-Year Review for Rocky Flats continues, and EC briefed the Rocky Flats Stewardship Council on the status of the review at the Council meeting on February 6, 2012. A site inspection in accordance with EPA's Five-Year Review guidance was performed on March 12, 2012. The RFLMA regulatory agencies participated in the inspection. Although the review report concurrence deadline is September 14, 2012, EPA has requested that a final draft report be submitted by May 16, 2012. This inspection also served as the annual site inspection that RFLMA requires.

At Rocky Flats, EC assisted with the annual review and update of the EC- and EMS-related portions of the *Rocky Flats Site Operations Guide*.

EC personnel are helping to prepare the fourth CERCLA Five-Year Reviews for the Monticello mill tailings site, which is due in June 2012. The first and second drafts were completed and reviewed by LM.

The first special Mound National Emission Standards for Hazardous Air Pollutants (NESHAPs) report, covering July 2009 through July 2011, was submitted in February 2012.

Stoller completed the final two NESHAPs reports covering the periods July 2009–June 2010 and July 2011–June 2012. The submittal of these two reports completes NESHAPs monitoring at the Mound site.

EC provided additional technical support as follows:

- Conducted quarterly air monitoring at the Grand Junction disposal site.
- Performed a quarterly EC visit at the Tuba City site. A site inspection was performed, and site personnel were assisted with updating the site's chemical inventory.
- Performed an LM-wide Management Assessment to verify that all completed and approved well permits are being properly submitted to Records when they are received, and to identify areas for improvement, if applicable, associated with well permitting.

EC personnel completed and submitted the CY 2011 Emergency Planning and Community Right-to-Know Act (EPCRA) report for the following sites:

- Yucca Mountain Project office
- Grand Junction office site
- Grand Junction disposal site
- Tuba City disposal site

The EPCRA reports were submitted to various local and state entities, including the local emergency planning committee, the state emergency response committee, and local fire departments. This was the final report for the Yucca Mountain Project office, due to the recent closure of the Hillshire Building, which resulted in a decrease in chemical inventory below the reportable threshold planning quantity level.

Table 3 summarizes the progress that the LMS team has made toward meeting significant environmental-aspect targets.

Table 3. Progress on Significant Environmental-Aspect Targets

Significant Environmental Aspects	Targets	Status
1. Land Use	Perform Institutional controls (IC) surveillances and quarterly or annual site inspections to ensure that site access controls are implemented and IC prohibitions are followed at 20 sites.	IC surveillances and site inspections were performed at Falls City, Fernald, Gnome-Coach, Grand Junction, Green River, and Rocky Flats.
2. Releases to the Environment	Continue to treat and monitor groundwater at Fernald, Monticello, Mound, Pinellas, Rocky Flats, Shiprock, and Tuba City.	During the reporting period: <ul style="list-style-type: none"> <li>• 1,141,272 gallons of groundwater were treated at Fernald.</li> <li>• 9,487,000 gallons of groundwater were treated at Tuba City.</li> <li>• 1,059,000 gallons of groundwater were treated at Monticello.</li> <li>• 4,869,600 gallons of groundwater were treated at Mound.</li> <li>• 43,696 gallons of groundwater were treated at Pinellas.</li> <li>• 527,750 gallons of groundwater were treated at Rocky Flats.</li> <li>• 3,986,754 gallons of groundwater were treated at Shiprock.</li> </ul>
3. Resource Consumption, Use, and Storage	Develop an incentive program to encourage sharing business rental cars while attending out of town meetings and events.	The Waste Minimization and Pollution Prevention (WM/P2) team held a meeting to discuss options. A request was forwarded to the Administrative Secretaries to encourage employees to carpool whenever possible while on business travel.
4. Waste Generation and Minimization	Perform a pollution prevention opportunity assessment on the purchasing process to evaluate the option of going paperless.	None. Scheduled for later this year.

Table 4 summarizes some key activities and accomplishments.

Table 4. Summary of Key Activities and Accomplishments

Type of Activity	Number	Site-Specific Activities
Monitoring (# of samples/# of analyses performed by off-site and on-site labs)	1,422/3,157	AS&T: Subsurface Projects (45/113), Durango (12/54), Fernald (426/1018), Gnome-Coach (5/13), Grand Junction Office (15/39), Monticello (60/120), Mound (120/184), Pinellas (293/440), Rifle Disposal /Processing Site (3/3), Rocky Flats (226/586), Rulison (10/37), Tuba City (113/392) and Weldon Spring (94/2158)
Reporting Related to Permitting	39	Bluewater (6 well permits); Burrell (1, LTS&M); Canonsburg (1, LTS&M); Fernald (3, NPDES; 3, LMICP); Grand Junction Disposal Site (1, BMP); Monticello (1, LTS&M; 1,UDWR); Mound (3, NPDES; 3, ER; 3, Rad Effluent; 1 well installation); Parkersburg (1, LTS&M); Pinellas (3, NPDES), Rocky Flats (1, RFLMA), Salmon (1, LTS&M); and Weldon Spring (2, NPDES; 2, MSD; 1, CERCLA, 1, LTS&M),



Table 4 (continued). Summary of Key Activities and Accomplishments

Type of Activity	Number	Site-Specific Activities
Controlled Documents (revised or issued)	29	<ul style="list-style-type: none"> <li>• Comprehensive Emergency Management System</li> <li>• Conducting Prescribed Burns at the Fernald Preserve, Fernald, Ohio</li> <li>• Environmental Instructions Manual</li> <li>• Environmental Management System Description</li> <li>• Environmental Management System Programs Manual</li> <li>• Fernald Preserve Analytical Laboratory Procedures Manual</li> <li>• Fernald Preserve, Fernald, Ohio, Comprehensive Legacy Management and Institutional Controls Plan – Volume I</li> <li>• Fernald Preserve, Fernald, Ohio, Comprehensive Legacy Management and Institutional Controls Plan – Volume II</li> <li>• Fernald Preserve, Fernald, Ohio, Converted Wastewater Treatment Facility Procedure</li> <li>• Fernald Preserve Restored Area Maintenance Plan</li> <li>• Fernald Preserve, Fernald, Ohio, Wastewater Treatment Outside Systems Procedure</li> <li>• FUSRAP Electronic Library Processing Procedure</li> <li>• Health and Safety Manual</li> <li>• Health and Safety Plan for the Young – Rainey STAR Center</li> <li>• Health and Safety Procedures Manual</li> <li>• Legacy Management Facilities Management Plan</li> <li>• Long-Term Surveillance and Maintenance Plan for the Pinellas Site</li> <li>• Procurement Manual</li> <li>• Radiation Protection Program Plan</li> <li>• Radiological Control Manual</li> <li>• Radiological Control Technician (RCT) Training and Qualification Program Description</li> <li>• Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites</li> <li>• Shiprock, New Mexico, Disposal Site Groundwater Remediation System Inspections, Maintenance, and Repair Procedures</li> <li>• Training Department Monthly Reporting Procedure</li> <li>• Tuba City, Arizona, Disposal Site Operating Manual</li> <li>• Tuba City, Arizona, Tuba City Sampling and Analysis Plan</li> <li>• Tuba City Treatment System Description Document</li> <li>• Use of Smeal 3T Hydraulic Derrick</li> <li>• Weldon Spring, Missouri, Leachate Collection and Removal Operating Plan</li> </ul>
Reuse, Recycling and Source Reduction	N/A	<p>The LM and the LMS workforce continue to recycle solid waste, construction waste, and electronic waste. Three sites compost organic waste. Two sites recycled hazardous materials and waste, such as excess paint and mercury from a broken thermometer.</p> <p>The Fernald Preserve sold 140 1-cubic-foot bags of anthracite (size 0.60-0.80 [1.70]) that meet American Water Works Association standard B100-1, via the DOE- reuse board.</p>

## Environmental Management System

The LMS contractor continued to collaborate with LM to more fully implement the joint EMS in accordance with the requirements of the DOE Strategic Sustainability Performance Plan, Executive Order 13514, Executive Order 13423, and DOE Order 436.1. To accomplish this, most EMS efforts this quarter were directed toward preparing for and participating in EMS external audit, finalizing the LM Site Sustainability Plan, updating LM sustainability budgeting information for DOE to submit to the Office of Management and Budget, finalizing revisions to manuals to close out corrective actions from an internal audit, and preparing for the LMS Goal 1 and 4 Program Review meeting.

The LMS contractor participated in the EMS 3-Year Review (external audit) of the joint LM/LMS EMS. The objective evidence documented in the assessment shows that the LM/LMS EMS continues to conform to all elements of ISO 14001-2004. Numerous examples of exemplary performance were documented during the assessment, as were one finding and three observations.

Both the Sustainable Building team and Real Property are working with the building owners of LM-leased facilities who are interested in improving their buildings to bring them into compliance with the HPSB GPs. Recent improvements include replacing an old refrigerator with a new Energy Star–rated one and replacing T12 lights with either high-efficiency T8 or LED lights in the Delta Building. In an effort to capture more specific cool-roof data, a cool roof assessment was combined with a FIMS condition assessment at the Weldon Spring site. An EC staff member completed the USGBC Leadership in Energy and Environmental Design (LEED) 201 Core Concepts and Strategies online course.

In support of Executive Order 13514, the Office of Sustainability is continuing efforts to evaluate climate change risks and vulnerabilities for LM. DOE requested feedback on the draft and final versions of the *Preliminary High Level Analysis of Vulnerability to Climate Change*. The LMS EC team compiled climate change vulnerability information for LM sites and provided general feedback to LM in response to this request.

The LMS contractor initiated work on a baseline budget for FY 2013–FY 2018 EMS activities.

The EMS training team is working on revising EMS awareness training.

EMS/EC team members continue to participate in Clean Air Working Group, Federal Electronic Challenge Partner, Sustainability Assistance Network, Facilities Information Management System, and Data Centers teleconferences and Federal Energy Management Program training webinars.

During this quarter, the WM/P2 Team met on a monthly basis to discuss primary and secondary goals for FY 2012. In addition, the team discussed pollution prevention options for participating in Earth Day celebrations through the Grand Junction Site ‘Bring Your Kids to Work’ day. The team decided to provide a demonstration on composting and the reuse possibilities of plastic containers to raise the awareness of environmental sustainability in our youth.





The winter issue of *ECHOutlook* (volume 3, issue 3) was posted on the Intranet. The theme of this issue was sustainable buildings. The Sustainable Building team worked on creating a poster that highlights examples of HPSB GPs.

EO 13423 requires a 10 percent annual increase in fleet alternative fuel consumption by 2015 as relative to a 2005 baseline. The Vehicle and Fuel Use team tracks E85 use each month for each E85 vehicle. In January 2012, Fernald began using E85 regularly. In March, it was determined that new E85 fuel stations had opened near Pinellas and Rocky Flats. Personnel from those sites were contacted and have agreed to use E85 fuel in their sites' E85 vehicles. Additionally, the LMS contractor will receive 12 new E85 vehicles as replacements for gas-only vehicles. LM's E85 fuel use over the October 2011–March 2012 time span represents a 13.9 percent increase as compared to the October 2010–March 2011 time span. The trend of E85 use will continue to rise, which should directly impact total petroleum fuel use.

EO 13423 requires that petroleum fuel use decrease 2 percent annually as compared to FY 2005. The goal is to reduce total petroleum fuel use by 14 percent as compared to FY 2005. During October 2011 through March 2012, total petroleum fuel use has decreased by 5 percent as compared to October 2004 – March 2005 time span.

See Table 5 for a summary of performance toward obtaining DOE FY 2020 goals and selected LM FY 2012 EMS targets.

Table 5. DOE Goal Summary Table







DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
28 percent Scope 1 and 2 greenhouse gas (GHG) reduction by 2020 from a 2008 baseline.		There has been a 27.4 percent reduction to date.	A 28 percent reduction is planned by 2015.	Funding was obtained to install an additional 200 kw solar voltaic array at the Tuba City site.  Continue purchasing renewable energy credits.	
30 percent energy intensity reduction by 2015, from a 2003 baseline.*		There has been a 3.3 percent increase to date.  An energy audit was conducted in FY 2011 at the Fernald site.	LM will complete the installation of cost-effective electric meters in FY 2012.	Two meters were installed at Weldon Spring.  Funding was obtained to remove an obstruction from a pipeline at Fernald. The construction design was initiated, and the work will be performed in June 2012.	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

\* The 37.6 percent reduction in LM's building area will make the goal of 30 percent reduction in energy intensity by 2015 very difficult to achieve. The reclassification reduced LM's building area by 37.6 percent from 2010 to 2011. The increase is due to the change in classification of the Piqua site buildings to another structure and facility.







Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Individual buildings or processes metering for 90 percent of electricity (by October 1, 2012); for 90 percent of steam, natural gas, and chilled water (by October 1, 2015).		A metering plan was completed.  At present, 67 percent of electricity is metered, and 100 percent of natural gas is metered.  LM does not use steam or chilled water.	LM will continue installing advanced meters for electricity.	Two advanced meters were installed at Weldon Spring.	
Cool roofs, unless uneconomical, for roof replacements unless project already CD-2 approval. New roofs must have thermal resistance of at least R-30.		One building has a cool roof.  In an effort to capture more specific cool-roof data, cool-roof assessments were completed on all existing buildings.  LM performed a life-cycle cost analysis of cool roofs and identified LM-owned and LM-leased buildings on which it may be economically feasible to install a cool-roof coating, rather than maintaining the roofs in their existing condition.	All future new buildings will have cool roofs, if economically feasible.  In an effort to capture more specific cool-roof data, cool-roof assessments for each LM building will be combined with HPSB assessments in FY 2012.	Cool roof assessments were performed at the Weldon Spring site.  A primer on cool roof technology is being assembled. It will include the advantages and disadvantages of various types of cool roofs, and it will discuss the applicability of cool roofs (depending on climate).	
7.5 percent of a site's annual electricity consumption from renewable sources by 2013 and thereafter (5 percent 2010 – 2012).		The Energy Policy Act of 2005 goal was met.  Onsite renewable sources generated 2.1 percent of the electricity consumed annually, and 6.8 percent of annual electricity consumption was from purchased renewable energy credits.	LM will increase its purchase of renewable energy credits by 10 percent.	Continue purchasing renewable energy credits.	





Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Every site to have at least one onsite renewable energy generating system by 2010.		This goal was met.  LM reports as one site and has more than one onsite renewable-energy-generating system.	LM will continue to pursue onsite projects where feasible.	Funding was obtained to install an additional 200 kw solar voltaic array at the Tuba City site.	
10 percent annual increase in fleet alternative fuel consumption by 2015 relative to a 2005 baseline.		This goal was met.	LM will increase the ratio of alternative fuel use to conventional fuel use by 25 percent compared to FY 2009 values.	<p>The 2015 goal has been met. However, LM will continue acquiring alternative fuel vehicles (AFVs) and hybrid vehicles and using E85 fuel.</p> <p>Total E85 fuel used from October 2011 through March 2012 = 1,741.78 gallons.</p> <p>Total E85 fuel used from October 2010 through March 2011 = 1,528.82 gallons.</p> <p>LM's E85 fuel use over the October 2011–March 2012 time span represents a 13.9 percent increase as compared to the October 2010 to March 2011 time span.</p> <p>LM's EMS goal is to increase the ratio of alternative fuel use to conventional fuel use by 25 percent as compared to the FY 2009 ratio. For the October 2011 to March 2012 time span, the LMS contractor's ratio shows a 147 percent increase.</p>	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement







Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
2 percent annual reduction in fleet petroleum consumption by 2020 relative to a 2005 baseline.		This goal was not met.**  Through LM's mission, the number of sites will continue to increase. If the program grows as expected, the number of LM sites will grow to approximately 130 sites by 2020.	LM will increase the ratio of alternative fuel use to conventional fuel use by 25 percent compared to FY 2009 values.	Total petroleum used from October 2011 through March 2012 = 12,143.7 gallons.  Total petroleum used from October 2004 through March 2005 = 12,813 gallons.  LM's total petroleum use for the October 2011 to March 2012 time span represents a decrease of 5 percent as compared to the October 2004 to March 2005 time span.	
75 percent of light-duty vehicle purchases must consist of AFVs by 2015.		This goal was met.	The strategy for replacing 100 percent of light-duty vehicles with AFVs, when it is time to retire them from the fleet, exceeds the requirement of 75 percent AFV acquisition. In 2011, all seven light-duty vehicle acquisitions were AFV E85-fuel vehicles.	LM will continue to replace light-duty conventional fuel vehicles with AFVs. LM's current light-duty fleet comprises 28 vehicles. Of those, 27 are AFVs, making 96.4 percent of the light-duty fleet AFVs. Upon receiving all of the 2012 scheduled replacements, 96 percent of LM's light-duty fleet will be AFVs.	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

●● It will be a major challenge for LM to decrease fleet petroleum consumption by 2 percent compounded annually through 2020, as compared to the 2005 baseline. In 2005, LM had significantly fewer sites and vehicles than at the end of 2011. In 2005, LM had 63 sites, but by the end of 2011, LM had 87; in 2005, LM's fleet contained 28 vehicles, but by the end of 2011, it contained 43.





Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Reduce fleet inventory by 35 percent within the next 3 years relative to a 2005 baseline.		LM is not scheduled to meet this goal.●●●  Based on discussions with DOE Headquarters–Fleet, the impact of LM's inability to reduce its inventory will be more than compensated for at the "corporate level" by the reductions in vehicles by the DOE Office of Environmental Management as the Office of Environmental Management transitions sites to LM.	On January 27, 2011, Secretary of Energy Dr. Steven Chu proposed that his agency reduce vehicle fleets by 35 percent over 3 years (2012, 2013, and 2014) based on 2005 numbers "without sacrificing either critical mission elements or our commitment to operating in a safe, secure and environmentally sound manner."	In the second quarter of FY 2012, three vehicles have been slated for reduction. All options for "right-sizing and optimizing" the fleet is being considered without sacrificing mission, scope, elements, or safety.  LM had 28 vehicles in 2005 and currently has 43. Compared to the year in which the total number of sites and vehicles stabilized (FY 2007), the decrease is 24 percent.	
Training and outreach. DOE facility energy managers to be Certified Energy Managers by September 2012.		One LMS individual took Certified Energy Managers training, passed the exam, and submitted an application for approval of certification.	LM will continue to train additional personnel and create an organizational structure to improve and promote energy efficiency.	The application was approved. One LMS employee is now a certified energy manager.	
Sulfur hexafluoride (SF <sub>6</sub> ) capture program by September 2012. SF <sub>6</sub> is primarily used to insulate electrical equipment such as circuit breakers, transmission lines, transformers and substations. Atmospheric emissions occur during equipment maintenance or from leaks.		LM did not have any SF <sub>6</sub> when the baseline was established. LM continues to not have any SF <sub>6</sub> since LM does not manage the maintenance of major electrical equipment such as transmission lines, transformers, or substations that require SF <sub>6</sub> at any LM sites.	LM will check any electrical maintenance contracts to ensure that companies contracted to perform electrical work have a process in place for collecting SF <sub>6</sub> and checking for leaks of SF <sub>6</sub> should LM require that service in the future.	None.	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

●●● In 2005, LM had 63 sites—far fewer than the 102 that were projected to constitute the LM network by the end of 2014. Furthermore, while LM had only 28 vehicles in 2005, its fleet was expected to increase to 43 vehicles by the end of 2014.







Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
13 percent Scope 3 GHG reduction by 2020 from a 2008 baseline.		<p>In 2010, Scope 3 GHGs were reduced by 11.5 percent, and in 2011, a reduction of 8.5 percent was calculated based on the information provided in Tab 3.2 of the Consolidated Energy Data Report spreadsheet. These reductions exceed the expected targets for both years.</p> <p>Since the number of employees is steadily increasing across the country, and since the number of factors considered under Scope 3 is increasing, LM may not be able to sustain this level of reduction.</p>	LM will encourage employees to carpool to work, to participate in alternative work-location agreements, and to use more video- and teleconferencing instead of flying to locations for face-to-face meetings.	A request was sent to Administrative assistants to encourage employees to carpool during offsite work trips whenever possible.	
15 percent of existing buildings larger than 5,000 gross square feet (GSF) to be compliant with the five HPSB Guiding Principles (GP) by 2015.		<p>12.5 percent of existing buildings comply with the GPs.</p> <p>All existing LM-owned and LM-leased buildings have been assessed.</p>	By the end of FY 2012, LM will update data systems (i.e., Portfolio Managers and FIMS) for all previously assessed LM-owned and LM-leased buildings to reflect changes in GPs.	<p>Continue to update utility usage and HPSB updates in Portfolio Manager.</p> <p>Replaced light fixtures with more efficient bulbs, replaced emergency exits lights with Led lights and replaced one refrigerator with Energy Star rated refrigerator at the Delta Building.</p> <p>A BCP was approved to demolish the Weldon Spring Administration Building by the end of calendar year 2012, thus reducing the number of buildings that need to be upgraded to meet the Guiding Principles.</p>	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement







Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
All new construction, major renovations, and alterations of buildings greater than 5,000 GSF must comply with the GPs and where the work exceeds \$5 million, each are Leadership in Energy and Environmental Design-New Construction (LEED-NC) Gold certification or equivalent.		One new building met or exceeded the requirement for a LEED-NC Gold certification.	All new buildings and major renovations will meet or exceed these requirements.	There are currently no proposed new buildings, greater than 5,000 GSF, under consideration.	
26 percent water intensity reduction by 2020 from a 2007 baseline.		An 88.2 percent reduction in water intensity was achieved in 2011, which exceeds the required minimum reduction of 8 percent by the end of 2011.  Water audits were conducted in 2011 at the Grand Junction and Weldon Spring sites.	LM will implement two water efficiency improvements. At least one improvement will be implemented at the Weldon Spring site.	LM continued tracking water use at Goal Metrics sites.  One potable water efficiency improvement was made: the leak at the backflow preventer on the irrigation line in the mechanical room of the Weldon Spring Interpretive Center was repaired.  One more water efficiency improvement still needs to be implemented in the remainder of FY 2012.	
20 percent water consumption reduction of non-potable industrial, landscaping, and agricultural (ILA) water by 2020 from a 2010 baseline.		A 9.39 percent reduction was achieved in 2011, which exceeds the required minimum ILA reduction of 2 percent by the end of 2011.  Two efficiency improvements were implemented at the Tuba City site in 2011.	LM will continue to track use and performance, and will plan projects to reduce industrial and landscaping water use through improved use practices and water-efficient products.  Water audits will continue to be performed to assess water use and to identify additional water reduction and reuse opportunities.	LM continued tracking water use at Goal Metrics sites.  Two water audits will be performed in the second half of FY 2012.	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement







Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Divert at least 50 percent of non-hazardous solid waste, excluding construction and demolition debris by 2015.		LM recycled 440,416 pounds of material by the end of 2011. This amount was a diversion of 66.5 percent of solid waste.	LM will achieve a 50 percent waste diversion for two waste streams: construction and demolition debris, and nonhazardous solid waste.●●●●	LM reused or recycled 41,917 pounds of material (a 23.3 percent diversion) by the end of the second quarter of FY 2012.  In addition, LM reused 4,407 lbs and recycled 932 lbs of electronic equipment (universal waste).	
Divert at least 50 percent of construction and demolition debris by 2015.		LM diverted 77.3 percent of construction and demolition materials and debris by the end of 2011.	LM will achieve a 50 percent waste diversion for two waste streams: construction and demolition debris, and nonhazardous solid waste.●●●●	There was no construction and demolition debris produced during the 1st and 2 <sup>nd</sup> quarters of FY 2012.  The Rocky Flats Dam Breach project involves a large amount of construction and demolition debris but will be reported when the project is complete (3 <sup>rd</sup> quarter FY 2012).	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement





●●●● The DOE Office of Health, Safety, and Security has modified the definition of debris to include bulk material from road, bridge, and building construction and demolition. It is unclear how to factor in remediation waste as opposed to sanitary waste. This may reduce solid waste diversion and increase construction debris diversion in 2012.

Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Procurements meet sustainability requirements and include sustainable acquisition clause (95 percent each year).		Excluding credit card purchases, 100 percent of the products and services LM purchased met sustainability requirements. All solicitations, subcontracts, and purchase orders contained the sustainable acquisition clause.	LM will advance sustainable acquisition by striving to make 95 percent of its new contract actions for products and services (including task/release and blanket orders, but excluding all credit card purchases) environmentally preferable, in accordance with Executive Order 13514 (subject to certain qualifications and limitations).	All of the products and services LMS purchased were sustainable. All solicitations, subcontracts, and purchase orders contained the sustainable acquisition clause.  100 percent of computer systems purchased during the first and second quarters of FY 2012 were rated EPEAT silver or gold. This exceeds the Executive Order 13423 requirement that 95 percent of newly purchased computer systems be rated EPEAT silver or gold.	
All data centers are metered to measure a monthly power utilization effectiveness (PUE); 100 percent by 2015.		LM has metered 50 percent of its data centers.	The remaining data center is scheduled to be metered in FY 2012.	Separate metering at the Grand Junction site is planned for mid-2012.	
All data centers should have a maximum annual weighted average PUE of 1.4 by 2015.		Separate metering of data-processing equipment in the LMBC data center is installed so that LM can accurately measure and improve its PUE.	LM will complete actions that conserve energy in the LMBC and Grand Junction data centers.  In 2012, LM will extend separate metering to the Grand Junction data center to measure and improve PUE there.	Separate metering equipment at the LMBC has been programmed and is being monitored.	

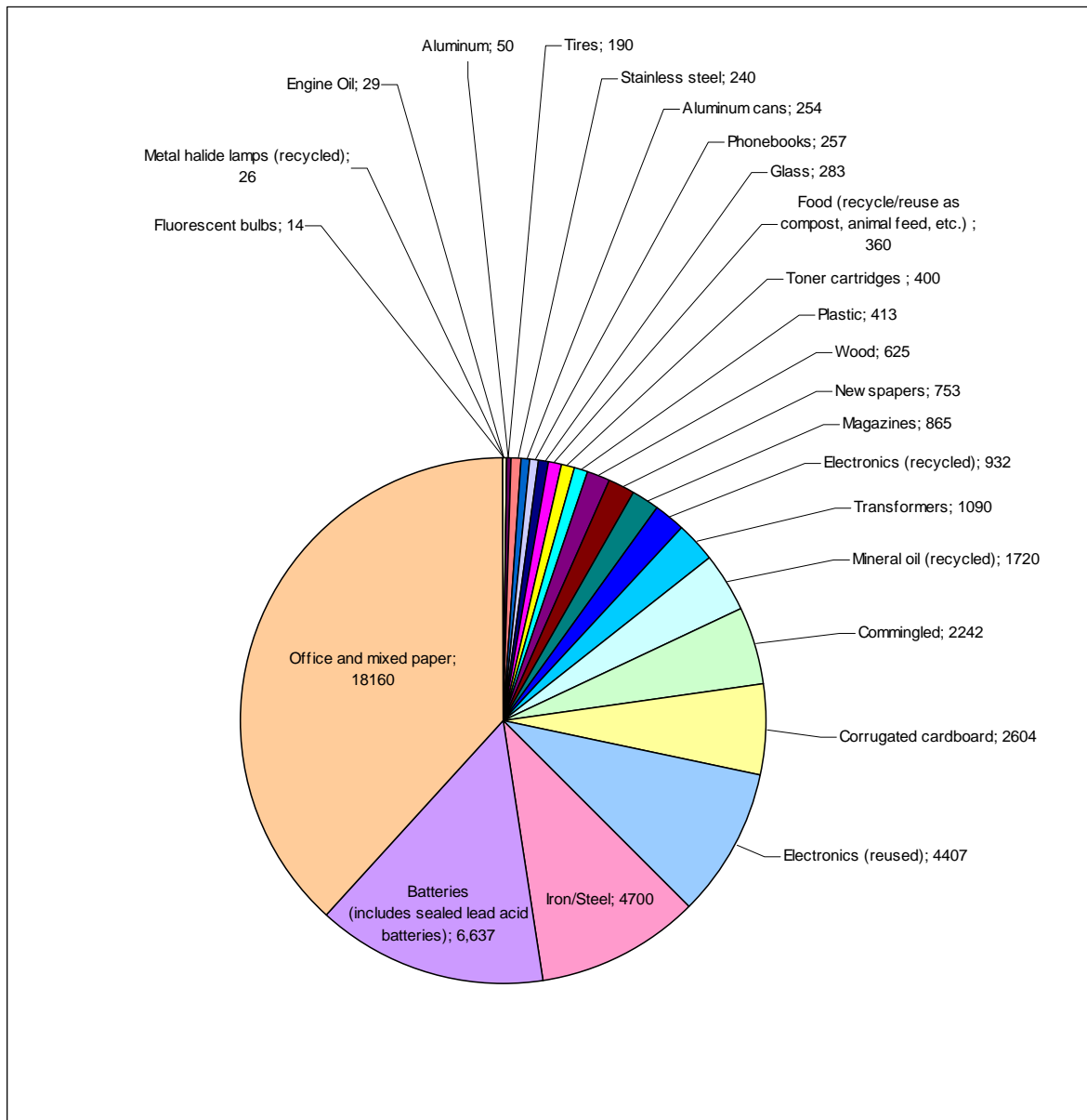
Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

Table 5 (continued). DOE Goal Summary Table

DOE Goal	Long-Term Status	FY 2011 Site Performance Status	FY 2012 Targets	Actions Taken This Quarter	Current Performance Status
Electronics Stewardship – 100 percent of eligible personal computers, laptops, and monitors with power management actively implemented and in use by 2012.		All desktop and laptop systems in LM are imaged with power management settings configured per the government standard.  The controls for power management on all LM systems are “locked down,” which prohibits users from changing them.	LM will roll out Windows 7 in 2012. The appropriate power management controls will be in place and locked down.	Windows 7 is currently being tested and is on target for rollout in summer 2012.	
Protect human health and the environment through effective and efficient long-term surveillance and maintenance.		LM documented ecosystem improvements at LM sites in the ecology tracking log, including improvements in ecosystem health, land management, and remedy performance.	LM will complete a grazing management proposal for the Monticello disposal site. The proposal will emphasize habitat improvement, cover performance enhancement, and land reuse acreage.  <i>Stretch goal:</i> LM will acquire regulatory approval and project funding to begin implementing the proposal.	LM tabled a decision on the Monticello grazing proposal until fall. The LMS contractor drafted four articles on land stewardship for the <i>ECHO</i> Outlook newsletter.	

Stoplight status =  Excellent,  Satisfactory,  Requires Improvement

A total of 41,917 pounds of materials was recycled and reused in the 1st and 2nd quarters of FY 2012. Municipal solid waste, excluding construction and demolition debris, diverted from solid waste landfills through recycling and reuse totaled 23.3 percent. Figure 4 shows the composition of this year's recycled materials including electronic equipment (universal waste) recycling and reuse data.



\*Commingled recyclables include paper, cardboard, plastic, etc.

All weights are in pounds.

The following materials are not included on this chart, since they would underwhelm or overwhelm the graph: 1.0 pound of mercury and 5.0 pounds of copper were recycled/reused at several sites.

Figure 4. Recycling Totals by Category



Table 6 reflects the first- and second-quarter performance toward sustainable purchases for purchase order, subcontracts, and credit card transactions for each EMS program. Through the first two quarters of FY 2012, \$576,723.01 of sustainable products and services were purchased.

The LMS contractor's commitment to implementing a complex-wide comprehensive program for tracking procurement actions continues to succeed. Of the purchase orders that the LMS contractor issues for sustainable products and services, the LMS contractor strives to place 95 percent of them for products and services that are included on the mandated list. The first two quarters, the LMS contractor exceeded that goal by purchasing sustainable goods and services from the list 100 percent of the time.

*Table 6. FY 2012 First- and Second-Quarter Sustainable Acquisition Tracking Results*

<b>EPP Tracking System</b>	<b>Program Description</b>	<b>Value of Purchase Order or Credit Card Purchase of Item for the Reporting Period</b>
<b>Buying Green</b>		
Y1	Energy Efficiency and Greenhouse Gases Program	\$15,043.24
Y2	Renewable Energy Program	\$4,644.50
Y3	Water Conservation Program	\$2,736.71
Y5	Pollution Prevention Program	\$125,073.48
Y6	Sustainable Buildings	\$00.00
Y7	Vehicle and Fuel Management Program	\$150.71
Y8	Electronics Stewardship Program	\$71,000.07
Y9	Land Stewardship Program	\$358,074.30
	Total Y1 through Y9 Green purchases	\$576,723.01
<b>Exceptions to Buying Green</b>		
Y4-1	Exception, Emergency exists	\$700.00
Y4-2	Exception, Cost or schedule concerns far exceed the benefit	\$22.60
Y4-3	Exception, Does not perform as well or is an unproven product for high-risk operation	\$0.00
Y4-4	Exception, Existing warranty could be impacted	\$0.00
Y4-5	Exception, No green alternatives available for consideration	\$4,471,377.80
Y4-6	Exception, Other exceptions approved by EC and task order manager	\$0.00
	Total Y4-1 through Y4-6 Exceptions	\$4,472,100.40
<b>FY 2012 First- and Second-Quarter Purchase Order and Purchase Card Purchases (LMS only)</b>		\$5,048,823.41
<b>FY 2012 Year-to-Date Purchase Order and Purchase Card Total Purchases (LMS only)</b>		\$5,048,823.41