

# 2024–2029 Significant Environmental Aspects

## 1.0 Introduction

The mission of the U.S. Department of Energy (DOE) Office of Legacy Management (LM) is to safely manage DOE’s postclosure responsibilities and ensure the future protection of human health and the environment. All LM activities were evaluated for their potential impact on the environment. Furthermore, those aspects that could have a significant impact if they are not controlled were identified. The information obtained is used for developing programs to prevent or mitigate potential impacts and to establish prioritized goals, objectives, and targets for continually improving performance.

## 2.0 Waste Management

The LM program generates, stores, and transports various types of waste as part of its operations. Waste types include municipal solid waste, construction and demolition debris, universal, electronic, hazardous, toxic, and radioactive waste including 11e.(2) byproduct material and technologically enhanced naturally occurring radioactive material (TENORM). LM also manages legacy waste in onsite disposal cells. All waste streams are managed in compliance with applicable regulatory requirements.

LM strives to achieve pollution prevention, source reduction, and to minimize the quantity and toxicity of the waste that it generates and subsequent greenhouse gas (GHG) emissions through the following:

- Preventing generation of waste whenever possible
- Applying sustainable purchasing practices
- Promoting reuse and recycling to divert waste from landfills
- Performing comprehensive project planning and implementation, which emphasizes sustainability practices, including not procuring unnecessary items and reusing material from other sites

These practices have many far-reaching benefits beyond preventing and minimizing pollution, including reducing waste disposal and product procurement costs; promoting sustainable supply chains; and conserving energy, water, and other natural resources.

## 3.0 Resource Procurement, Use, and Storage

LM purchases, uses, and stores a variety of materials at sites. These materials include diesel fuel, gasoline, acids and other chemicals, herbicides, pesticides, and radioactive sources. When materials are procured, sustainable acquisition practices—such as selecting products with reduced toxicity or with recycled-material content—are followed. In addition, purchased utilities such as water, electricity, and natural gas, can be reduced by using renewable energy sources or nonpotable water.

LM has a policy that requires the purchase or leasing of zero-emission light-duty vehicles from the U.S. General Services Administration. An additional policy requires the leasing or purchasing of the smallest-sized vehicles as well as controlling the smallest-sized fleet necessary to accomplish LM's mission.

All drivers are encouraged to carpool when available, use the right size vehicle for the task, combine trips, and to plan trips prior to departure to reduce mileage. Lowering the use and dependency on conventional fuel, to the maximum extent possible, is an action that LM has committed to fulfill.

LM strives to minimize the storage and use of materials that may pose a risk to the environment, including petroleum, chemicals, and radioactive materials, with varying management programs. The LM Chemical Management Program is a best management practice for minimizing the use of chemicals that are harmful to plant systems, structures, components, and personnel. The program also mandates that the Environmental Compliance department screen and give prior approval for chemicals specific to minimizing the use of hazardous substances, chemical exposures to personnel, generation of hazardous and mixed waste, and fire hazards. In addition, LM follows Section 5.3, "Waste Minimization and Pollution Prevention Plan," of the *EMS Sustainability Teams Manual* (LM-Manual-3-20.3-1.0, LMS/POL/S11374). The plan advises LM staff on ways to reduce pollution and waste generation by changing purchasing habits such as replacing hazardous materials with nonhazardous substitutes (e.g., using latex paint instead of solvent-based paint).

Executive Order (EO) 14057, *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*,<sup>1</sup> and EO 14008, *Tackling the Climate Crisis at Home and Abroad*,<sup>2</sup> establish goals for federal agencies to maintain leadership in sustainability, GHG emission reduction, and reducing impacts of climate change. The goals set within include promoting energy conservation, efficiency, and management by reducing energy usage in agency buildings. There are operations and maintenance plans in place that address resource-consuming items, such as electronic settings; heating, ventilation, and air conditioning setbacks; temperature controls; and electronic-power management techniques to minimize the use of resources. LM goals also aim to improve water-use efficiency and management. LM accomplishes these goals by planting native vegetation, metering water use in accordance with federal metering guidelines, utilizing low-flow water fixtures whenever possible, and evaluating agency potable and nonpotable water consumption for reduction opportunities when appropriate.

## 4.0 Impacts to the Environment

In accordance with federal and state regulations, operations at several sites release wastewater and stormwater into receiving streams or groundwater. The National Pollutant Discharge Elimination System regulates discharges to Waters of the United States. Wastewater is treated and routinely tested for metals, chemicals, and radionuclides before it is discharged. Discharges to groundwater are also subject to site-specific agreements between LM and site-specific regulatory agencies.

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<sup>1</sup> EO (Executive Order) 14057. *Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability*, December 8, 2021.

<sup>2</sup> EO (Executive Order) 14008. *Tackling the Climate Crisis at Home and Abroad*, January 27, 2021.

LM maintains radioactive materials at LM sites, including uranium mill tailings and legacy waste, in onsite disposal cells. Cells are carefully monitored and maintained to prevent releases to the environment.

LM also aims to eliminate hazardous materials spills that will impact the environment or worker and public health. While conducting work, LM follows Section 5.0, “Radioactive Waste Management,” of the *Environmental Instructions Manual* (LMS/POL/S04338) to limit, control, and minimize radioactive materials in solid waste, gaseous emissions, and liquid discharges.

LM evaluates projects and activities for their potential to affect air quality or emit GHGs. Permitting and monitoring requirements are determined during project planning. LM tracks Scope 1, 2, and 3 GHG emissions and implements mitigation measures where applicable.

## 5.0 Land Use

LM actively seeks to reduce its environmental footprint on the natural landscape, whenever possible. Although maintenance or monitoring projects such as road repairs and well installations have the potential to cause some harm to the environment (e.g., erosion of soil, introduction of noxious weeds, disturbance to ecological resources), LM takes appropriate measures to prevent or reduce such impacts.

LM identifies potential environmental, cultural and historical, and environmental justice impacts during the planning process of any project and incorporates best management practices or other mitigations into plans before work begins. LM evaluates LM-owned properties for beneficial reuse when applicable to optimize the use of land and assets.

Comments or questions related to LM’s significant environmental aspects should be directed to the LM Environmental Program Manager Joyce Chavez at (720) 377-3820 or [Joyce.Chavez@lm.doe.gov](mailto:Joyce.Chavez@lm.doe.gov).