

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. In support of this mission, LM has evaluated existing and planned site activities for their potential impact on the environment. Aspects that could have a significant impact if they are not controlled were identified. The information obtained from this evaluation is used to develop operational controls 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, and universal, electronic, hazardous, toxic, and radioactive waste including Atomic Energy Act Section 11e.(2) byproduct material and technologically enhanced naturally occurring radioactive material. 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 and 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 the 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 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. There are operations and maintenance plans in place that address practices

related to resource consumption, such as electronic settings; heating, ventilation, and air conditioning setbacks; temperature controls; and electronic power management techniques to minimize the use of resources. LM reduces water consumption 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.

To reduce fuel consumption, LM's policy requires that personnel utilize appropriately sized vehicles for the task and use the smallest-sized fleet necessary to accomplish LM's mission.

All drivers are encouraged to carpool when possible, combine trips, and plan trips before departure to reduce mileage. LM has committed to reducing the use of conventional fuel, to the maximum extent possible.

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 and the generation of hazardous and mixed waste. In addition, LM follows Section 5.3, "Waste Minimization and Pollution Prevention Plan," of the *EMS Sustainability Teams Manual* (LM-Manual-3-20.3-1.0-2.1, LMS/POL/S11374-3.1). The plan advises LM staff on methods to reduce pollution and waste generation by altering purchasing habits such as replacing hazardous materials with nonhazardous substitutes (e.g., using latex paint instead of solvent-based paint).

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. 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.

LM manages radioactive waste at LM sites, including uranium mill tailings and legacy waste, in onsite disposal cells. Cells are carefully monitored and maintained to prevent the release of contaminants to the environment.

LM also aims to eliminate hazardous material spills that could 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/S04338-9.0) 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 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.

For more information on LM's activities or on the content of this report, contact:

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