

GAO Highlights

Highlights of [GAO-20-373](#), a report to the Committee on Armed Services, U.S. Senate

Why GAO Did This Study

After over 70 years of nuclear weapons production and energy research at hundreds of sites across the country, DOE faces over \$500 billion in environmental liabilities associated with cleanup of hazardous contamination and long-term management of these sites. LM is responsible for the portion of these liabilities associated with long-term management of sites after active cleanup has been completed. LM oversees 100 sites across the country. Depending on the sites' clean-up standards and intended reuse, LM will likely be managing some sites for centuries.

Senate Report 116-48 accompanying the National Defense Authorization Act for fiscal year 2020 includes a provision for GAO to review LM's operations, including the nature of its environmental liability. This report examines (1) LM's environmental liability, and (2) any challenges LM faces in managing its sites and how it is addressing those challenges. GAO analyzed data on LM's environmental liability; interviewed officials at LM headquarters and those responsible for the nine sites requiring the most intensive level of management; and reviewed relevant policies, procedures, and guidance.

What GAO Recommends

GAO is making three recommendations, including that DOE develop agreements and procedures for circumstances that require new cleanup work and that it develop plans to assess and to mitigate the effects of climate change on its sites. DOE agreed with all three recommendations.

View [GAO-20-373](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

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ENVIRONMENTAL LIABILITIES

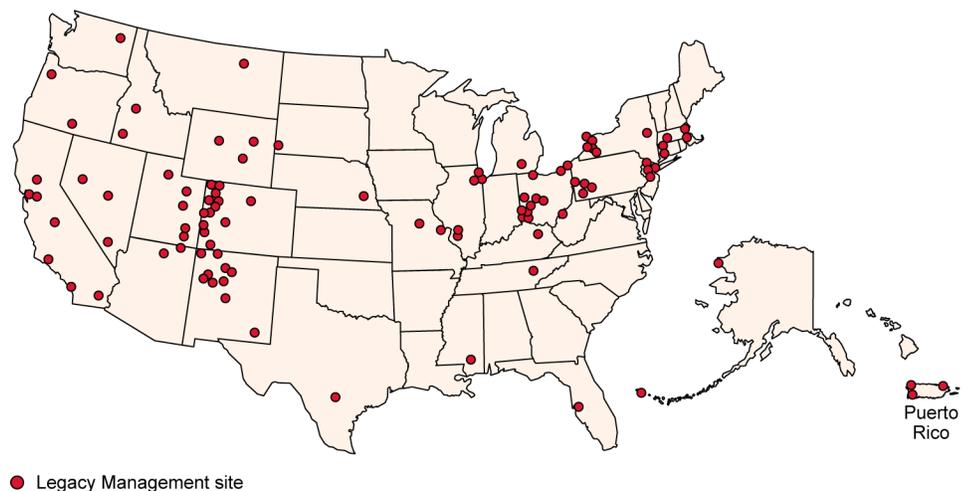
DOE Needs to Better Plan for Post-Cleanup Challenges Facing Sites

What GAO Found

The environmental liability of the Department of Energy's (DOE) Office of Legacy Management (LM) was estimated at \$7.35 billion in fiscal year 2019 and, according to LM officials, is expected to grow as LM acquires more sites (see figure for LM's current sites). Long-term surveillance and maintenance activities associated with radioactive and hazardous waste, such as treating residual groundwater contamination, account for about 40 percent of the costs. LM's environmental liability has generally remained stable over the past 5 years. As of September 2019, LM is scheduled to receive 52 additional sites by 2050, and officials expect LM's environmental liability to grow as a result. Officials said LM is taking steps to reduce its environmental liability at its current sites, such as exploring alternative approaches for reducing residual contamination.

LM officials identified challenges in providing long-term surveillance and maintenance of sites related to: (1) the performance of remedies that contain or reduce contamination, (2) environmental conditions, and (3) new regulatory requirements. LM is taking some actions to address these challenges. For example, at its Rocky Flats, Colorado, site, LM is repairing an aging landfill that was damaged by extreme rainfall events. However, LM has not yet planned for how to address challenges at some sites that may require new cleanup work that is not in the scope of LM's expertise and resources. By developing agreements and procedures with the entities that would be responsible for conducting this new cleanup work, LM can help mitigate risks to human health and the environment. In addition, LM has not made plans to assess the effects of climate change on its sites or to mitigate those effects, as called for in its strategic plan. By developing plans to assess the effect of climate change on its sites and to mitigate any significant impacts, LM could better ensure that its remedies will protect human health and the environment in the long term.

Figure: Map of 100 Sites Managed by DOE Office of Legacy Management (as of September 2019)



Sources: Department of Energy (DOE) (site locations); Map Resources (map). | GAO-20-373