

A report to congressional committees

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What GAO Found

The Department of Energy (DOE) created initial future land use plans in coordination with local communities as early as 1992 at six cleanup sites GAO selected for review. These plans inform but do not bind assumptions about future land use that DOE and regulators make when selecting a cleanup remedy at a site. The remedy selected during the cleanup process has lasting consequences for how a parcel of land can be used, even after DOE transfers or leases it to another federal agency, a state or local government, or a private party. For example, any future use that would increase exposure to residual contamination above the contemplated level could undermine the protectiveness of the remedy. Accordingly, assumptions about future land use provide a framework for the range of uses that are safely available for a given parcel after cleanup.

The Department of Energy's (DOE) General Process for Identifying Future Land Use and Subsequent Cleanup and Transfer Decisions at Selected Cleanup Sites

DOE coordinated with local communities to create initial future land use plans at selected cleanup sites. These are non-binding documents.

DOE and regulators decide on a cleanup approach for land. The cleanup approach is based in part on how land may be used in the future.

Once remediation is complete, DOE may retain ownership or transfer/lease the land to another federal agency, state or local government, or a private entity. Cleanup decisions affect how the land may be used in the future.



Source: GAO analysis of DOE documentation and Stock.Adobe.com (illustration). | GAO-27-108063

At the Oak Ridge, Paducah, Portsmouth, and Savannah River sites, DOE and regulators established cleanup levels that aligned with DOE's initial future land use plans for these sites. DOE agreed to clean up most of the contaminated areas at these sites to support industrial use. For nearly a third of the Hanford site and most of the contaminated areas of the Idaho site, DOE and regulators set more stringent cleanup standards than needed to meet DOE's anticipated conservation, preservation, or industrial uses for the land. However, while they agreed to cleanup standards based on residential use, future residential use is unlikely. They said it would be difficult to go back and calculate the cost difference between cleaning up to support residential and the other uses, but others noted cleaning up to support residential use is typically more costly.

DOE has transferred or leased a small amount of land to the community or private entities for industrial use at five of the sites. DOE recently announced new initiatives for energy development, integrated hubs for nuclear fuel cycle activities, or co-located data centers to support artificial intelligence infrastructure. Some community stakeholders have expressed interest in more land transfers, and they generally expressed support for industrial reuse. DOE officials and stakeholders cited some potential benefits, such as economic growth, high-quality jobs, or local tax revenue. They also cited potential drawbacks, such as taking focus and resources away from cleanup, pollution and site recontamination risks, and future DOE liabilities.

Why GAO Did This Study

DOE is responsible for cleaning up sites contaminated from decades of nuclear weapons production and research. DOE estimates cleaning up 15 remaining sites will cost between \$641 billion and \$840 billion and be completed in 2100. When making cleanup decisions, DOE and its regulators assess risk to people who may use the land in the future—such as for industrial or residential purposes—to inform its approach and set cleanup standards.

Senate Report 118-188 includes a provision for GAO to report on DOE's future land use planning at cleanup sites. This report describes (1) DOE's role in future land use determinations, (2) how cleanup decisions align with initial land use plans, and (3) what land DOE has transferred or leased to local communities.

GAO reviewed laws, regulations, policies, and agency documents at six sites selected to represent a range of regulatory frameworks, stages of cleanup, and future land uses. GAO visited two of the sites and interviewed DOE officials, regulators, tribal officials, and community stakeholders.

What GAO Recommends

In a related October 2026 report on defense nuclear waste ([GAO-27-107791](#)), GAO recommended that Congress consider clarifying DOE's and regulators' roles and decision-making authority in determining future land uses. GAO also recommended, among other things, that DOE direct cleanup sites to evaluate cleanup costs and schedule based on multiple potential future land uses as part of its cleanup decisions. Implementing these recommendations would help DOE link future land use assumptions with cleanup decisions in more transparent and cost-effective ways.