

MEASURING PROGRESS IN EPA'S LAND CLEANUP PROGRAMS



EPA tracks more than 530,000 sites representing almost 23 million acres. Contaminated sites addressed by EPA programs exist in thousands of communities across the United States, with great diversity in the nature of the land affected, local land uses, the nature of the contaminants, and the quantity of contamination. To address these diverse needs, Congress has commissioned a diverse array of EPA land cleanup programs, as summarized in Figure 1. The size of each program, by acres and number of sites, is summarized in Figure 2.

Across the programs, EPA works collaboratively with other federal agencies, states, tribes, local governments, communities and the regulated entities to clean up contaminated sites. By congressional design, the nature of the collaboration differs from program to program.

Figure 1

The Largest OSWER Programs for Long Term Land Clean Up

Superfund Remedial Programs The Superfund Remedial and Federal Facilities Program addresses long-term risks to human health and the environment resulting from releases of hazardous substances at the nation's highest priority sites. Superfund sites are found across the country. The Federal Facilities Program works with federal entities to ensure fast and effective cleanup at federally-owned sites, and facilitates partnerships between the other federal agencies and the surrounding communities. The Superfund Remedial Program works on non-federally owned sites.

Brownfields Program The Brownfields Program addresses environmental site assessment and cleanup of abandoned and potentially contaminated sites that are not Superfund sites, through grants, cooperative agreements, and technical assistance to communities, states, and tribes. Funding to states and tribes helps develop and enhance their voluntary cleanup programs. In addition, the program provides environmental workforce development and job training funding to recruit, train and place local, unemployed residents of solid and hazardous waste-affected communities with the skills needed to secure full-time employment in the environmental field.

Resource Conservative and Recovery Act (RCRA) Corrective Action (CA) Program An essential element of EPA's hazardous waste management program are requirements that facilities that treat, store, or dispose of hazardous wastes must clean up releases of hazardous waste as constituents as necessary to protect human health and the environment. A cleanup under RCRA is referred to as Corrective Action (CA). The EPARCRA Program directly implements the CA program in 11 states and territories, and performs as lead regulator at an increasingly significant number of facilities undergoing CAs in 44 states across the country that are authorized for the RCRA CA Program. The CA program is critical to preventing Superfund sites and the associated resources and expenditures.

LUST Program The Leaking Underground Storage Tank (LUST) program works with state and tribal partners to clean up releases from LUST sites, many of which impact ground water resources. States are the primary implementing agencies. EPA provides resources to support the infrastructure of state LUST programs so that private and state resources can directly finance the field work necessary to address contamination at federally- regulated tank releases. EPA also provides regulations, guidance and policy to support cleanup of tank releases.

For more information visit www.epa.gov/oswer/cleanups

Figure 2 Sites and Acres by Program (% of Universe)					
	Tanks	Superfund	Brownfields	RCRA CA	Total
Sites	514,123 (96.6%)	1,737 (0.3%)	12,718 (2.4%)	3,779 (0.7%)	532,357
Acres	514,123 (2.2%)	4,281,604 (18.7%)	177,356 (0.8%)	17,951,871 (78.3%)	22,924,954

Completing Cleanup and Reusing Sites - One of EPA’s top priorities is to support sustainable, thriving communities by cleaning up sites and returning them to productive reuse or maintaining the viability of the operating facility.

For some sites, however, removing or destroying all of the contamination is not practical. Some remaining contamination must be managed on-site, creating the need for site-specific Long-Term Stewardship (LTS) activities. EPA and its partners employ several different types of land use controls at these sites, including institutional controls and engineering controls, to assure that any contamination is contained and stabilized, and that human or environmental exposure to contamination is limited. The EPA, and its regulatory partners, rely on LTS at these sites to ensure that current and future site users are protected long after the construction phase of response actions have been completed.

In most cases, site-specific cleanup decisions are made by state-run or state-delegated programs, or grantees. For example:

- The Brownfields program is a grant program rather than a regulatory program. Many Brownfield cleanups go through the oversight of state voluntary cleanup programs established by individual state laws with associated regulatory standards to ensure protectiveness of human health and the environment. EPA retains oversight of these cleanups through the administration of the Brownfields grant.
- Cleanups being conducted under the Underground Storage Tank program are typically conducted and overseen through state programs. EPA typically conducts the cleanup in the comparatively few instances of leaking underground storage tanks on tribal lands.
- EPA can authorize states to manage all or part of the RCRA hazardous waste program in lieu of EPA’s federal regulations. For the RCRA CA Program, 44 states are authorized to implement the federal program and have the primary decision-making responsibility to ensure safe long-term remedies.
- Sites undergoing cleanup through the Superfund program provide the Agency with the most direct control. EPA has direct authority to fund or order the cleanup, provide oversight, seek penalties for non-compliance, and negotiate the cleanup process.

Each cleanup program has specific program measures tailored to the program’s universe and structure. These are summarized in Figure 4.

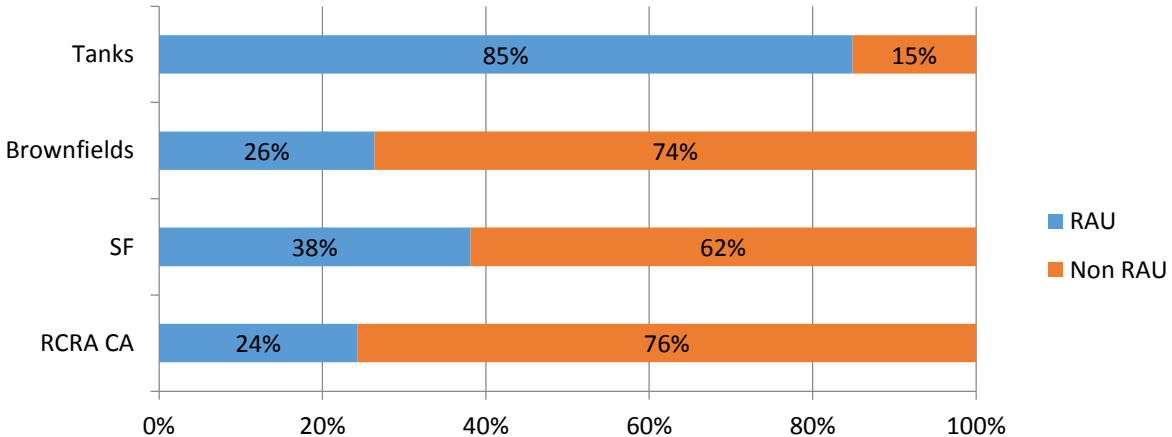
EPA provides the Cross-Program Revitalization Measures to provide the public a meaningful way to track overall program progress in achieving clean up at the 532,357 sites where EPA and its partners work, spread across 22,924,954 acres and four different major programs. The CPRM track each program’s progress at making sites Protective for People (PFP) and Ready for Anticipate use (RAU).

The PFP is an indicator that there is no complete pathway for human exposures to unacceptable levels of contamination based on current site conditions. These determinations are made at a particular point in time and may change if the site’s conditions change or if new information is discovered regarding the contamination or conditions at the site. The PFP measure can be achieved through temporary solutions and is not intended to address long-term human health protection. Therefore, achieving the PFP measure doesn’t imply or suggest that all cleanup obligations have necessarily been fulfilled. The PFP measure is nonetheless a particularly important interim milestone for large and/or complex sites while longer-term cleanup objectives are pursued.

The RAU is an indicator that the local, state, or federal agency has determined that there is no pathway for human exposures to unacceptable levels of contamination based on current site conditions and that cleanup goals and ECs and ICs have been implemented for the media (soil, water, sediments, etc) that affects current and reasonably anticipated future use of the site.¹

Thus, the RAU is aggregate performance measure and is not a reporting of site-specific risk. The RAU determination by the appropriate entity is based on information at the time that the determination is made and may change if the site’s conditions change or if new or additional information is discovered regarding the contamination or conditions at the site. Furthermore, the RAU determinations are specific to the exact uses at the site. As such, EPA recommends that parties interested in finding out what uses would be protective for a particular property must rely exclusively on site-specific cleanup documents and site-specific institutional controls, and contact the appropriate regulatory agency for more information.

Figure 3
Cumulative Sites RAU as a Percentage of all Sites



¹ An area of current attention is the lack of data on institutional controls (ICs) for the underground storage tanks program. We are working with the states to develop a baseline of current practices related to long-term protectiveness and whether the IC data can be made available.

Figure 4 Cleanup Continuum Performance Measures



Key

The measures are grouped into the three major stages of the cleanup process for illustrative purposes. For some programs and activities reuse may occur earlier in the continuum.

SF = Superfund

CA = RCRA Corrective Action

BF= Brownfields

* The Cross-program Revitalization Measure Ready for Anticipated Use (RAU) is the addition of these program measures.