

## UNDERSTANDING LEGACY SUPERFUND DESIGNATION

### Ongoing Remediation Protects Human Health & Environment, Meets Strict Federal Standards

In 1986, the original 66-acre portion of the 372 acres comprising the disposal footprint of Modern Landfill was listed by U.S. Environmental Protection Agency (EPA) as a Superfund site. This was the result of historical dumping that occurred long before national and state standards were created to regulate the disposal of waste, and long before Republic Services became the owner of the facility in 1999.

#### *History of Regulations*

Like many other landfills across the country, a small portion of what is now Modern Landfill began in the 1940s as farmland that the then-landowner used for waste disposal. At the time, there was virtually no regulation over such sites; this open disposal not only was common but also permissible. In 1970, there were approximately 1,100 similar dumpsites across Pennsylvania. The first federal and state regulations for the design and operation of landfills were adopted in the 1970s, and have been expanded and supplemented significantly over time.

Today, the solid waste industry is one of the most highly regulated industries in the country. Solid waste facilities are highly engineered in design and heavily regulated in every respect, from siting to filling to final closure. Since closure of the original 66-acre, unregulated disposal area, Modern Landfill has undergone four expansions that have been permitted, constructed and operated under these rigorous federal and state programs.

#### *Site Remediation*

Unfortunately, dumping activities at the original, unlined portion of the site prior to such regulation resulted in groundwater impacts. Once these impacts were discovered and characterized, both federal and state regulations mandated that the historical impacts be remediated by the then-current landfill operator, regardless of who was responsible for the original waste disposal resulting in those impacts. Remediation and mitigation efforts commenced in the late 1980s and have been ongoing to present day. Since acquiring Modern Landfill from Waste Management in 1999, Republic Services has continued those practices and completely funded the ongoing remedial system operations, as well as all associated monitoring efforts. This work is overseen and regulated by both EPA and the Pennsylvania Department of Environmental Protection (DEP).

Remedial work was implemented in the late 1980s and completed in 2001 with final upgrades to the landfill capping system. The site's long-term remedy includes collection and treatment of landfill leachate; the monitoring, collection and treatment of impacted groundwater; the monitoring of surface water; the continuous maintenance of the installed landfill cap system and final cover; the maintenance of site fencing; and the operation of a groundwater extraction and treatment system. Environmental regulations require that treatment of impacted groundwater

and the monitoring of groundwater and surface water continue until it is determined that regulatory cleanup standards have been met.

*Continuous Improvement*

This EPA-endorsed and approved remedy has been functioning as designed and is performing as required for the past 30 years. Over this 30-year period, the extent and magnitude of impacts to groundwater have been steadily declining. Although not yet achieving ultimate cleanup standards, impacts to groundwater are confined to the landfill property and the concentrations of specific constituents of concern are not only orders of magnitude lower now than when remedial work was initiated in the late 1980s, they are approaching ultimate cleanup standards.

The EPA conducts five-year reviews of these approved and implemented remedial actions to ensure they continue to function as designed and continue to protect public health and the environment. The most recent five-year review was issued in February 2020, when EPA concluded that the remedy continues to be protective of human health and the environment, stating specifically:

**VII. PROTECTIVENESS STATEMENTS**

<b>Protectiveness Statement</b>	
<i>Operable Unit:</i> OU1	<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedy is protective of human health and the environment. The cap and cover systems installed over the 66-acre Site is functioning properly and prevents direct exposure to landfill waste. The groundwater remedy is functioning as intended by the decision documents and intercepts impacted groundwater flowing beneath the 66-acre unlined landfill. Institutional controls are in place to protect the integrity of remedial components and prevent drilling of groundwater wells within impacted areas. All exposure pathways that could result in unacceptable risks are being controlled.	

Source: U.S. EPA, p. 25 (Link: <https://semspub.epa.gov/work/03/2297919.pdf>)

*Facts about Superfund Sites in U.S. & Pa.*

- Since its creation in 1983, approximately 1,700 sites have been listed on EPA’s National Priority List (NPL); approximately 24% of NPL sites have been delisted.
- Currently, there are 91 NPL sites in Pennsylvania; 14 of them (including the original disposal area at Modern Landfill) are former and/or current municipal solid waste disposal sites.

For more information: <https://modernlandfillpa.com/>.