



Tonawanda Landfill Vicinity Property

Tonawanda, NY

U.S. Army Corps of Engineers
Buffalo District
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Building Strong®

Formerly Utilized Sites Remedial Action Program

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and clean up or control sites throughout the United States that were contaminated by activities related to the nation's early atomic weapons and energy programs during the 1940s, 1950s, and 1960s. Congress transferred execution of FUSRAP from the U.S. Department of Energy (DOE) to the U.S. Army Corps of Engineers (Corps) in 1997. When implementing FUSRAP, the Corps follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

Site Description and History

The Tonawanda Landfill Vicinity Property consists of two parcels owned by the Town of Tonawanda: the Town of Tonawanda Landfill and the mudflats area, now known as the North Youngmann Commerce Center. The Tonawanda Landfill Vicinity Property covers approximately 170 acres in the Town of Tonawanda, Erie County, New York. The vicinity property is bordered by a residential area within the City of Tonawanda, a railroad line, Interstate 290, and East Park Drive. A National Grid utility corridor separates the landfill and mudflats area.

The Town of Tonawanda began disposing of waste at the landfill during the 1930s and continued doing so through 1989. Records indicate the Town principally used the landfill to dispose of construction and demolition material, yard waste, incinerator ash, and municipal waste.



As the result of a DOE radiological survey in 1991, a portion of the landfill and mudflats area, were designated as a single FUSRAP vicinity property of the Linde Site, which is also located in the Town of Tonawanda.

Corps of Engineers Activities

The Corps, Buffalo District, completed a remedial investigation of the Tonawanda Landfill Vicinity Property in 2005. This was in addition to previous DOE investigations in the 1990s. During the remedial investigation, the Corps sampled and tested soil, surface water, sediment, and groundwater of the vicinity property for uranium, radium, and thorium. It found small, isolated locations within the vicinity property had levels of uranium, radium, and thorium above background levels, similar to that found at other FUSRAP sites in Tonawanda. As part of the remedial investigation, the Corps conducted a baseline risk assessment to determine whether exposure to these radionuclides put human health and the environment at risk.

The baseline risk assessment conducted in 2005, using information available at that time, concluded that risks to human health, for the current and reasonable future site uses in both the landfill and mudflats areas, were within the acceptable limits established in the NCP.

The Corps released the proposed plan, covering both the Town of Tonawanda Landfill and the mudflats area, for public comment in the spring of 2007. Based on the remedial investigation and baseline risk assessment findings, the proposed plan recommended no action as the preferred alternative, for both the landfill and the mudflats area.

In response to public comments received on the proposed plan, the Corps divided the vicinity property into two operable units (OUs): the Landfill OU and the Mudflats OU. The Corps signed a record of decision for the Mudflats OU of the Tonawanda Landfill Vicinity Property in September 2008. The record of decision states that no action is required for the Mudflats OU because the risks from FUSRAP-related material for all media were within the acceptable risk limits established in the NCP, for the current and reasonable future land use of the Mudflats OU.

The Corps agreed to conduct additional sampling in the Landfill OU to confirm the nature and extent of FUSRAP-related material, and to update the baseline risk assessment based on the results of the additional sampling and other information provided in the public comments on the proposed plan.

The Corps conducted additional soil, groundwater, sediment, and surface water sampling on the Landfill OU in 2009, 2010, and 2011. Data from this sampling was used to update the baseline risk assessment to ensure that it reflected the realistic potential for human exposure in the Landfill OU, given its proximity to residential property.

The updated baseline risk assessment, completed in the spring of 2012, concluded:

- That for the current use of the Landfill OU, as it was then configured, risks to human health from potential exposures to FUSRAP-related material were within acceptable limits established in the NCP.
- If the landfill surface was not maintained and allowed to erode over time, then-buried FUSRAP-related material could be exposed. If that were to occur, risks to trespassers or other users on the site could increase above the NCP acceptable risk range approximately 600 years into the 1,000-year evaluation period.

Based on the baseline risk assessment conclusions, the Corps released a feasibility study in 2015. It identified the alternatives listed on the next page for a detailed analysis:

- Alternative 1 – No Action
- Alternative 2 – Single-Layer Capping of FUSRAP-Related Material
- Alternative 3 – Targeted Shallow Removal and Off-Site Disposal of FUSRAP-Related Material
- Alternative 4 – Deep Excavation and Off-Site Disposal of FUSRAP-Related Material

During 2016, the Corps released a proposed plan, summarizing its evaluation of remedial alternatives in the feasibility study. The proposed plan also presented the Corps' preferred alternative for the Landfill OU of the Tonawanda Landfill Vicinity Property. The preferred alternative identified in the proposed plan was Alternative 3, Targeted Shallow Removal and Off-Site Disposal of FUSRAP-Related Material, to address contaminated soils in the Landfill OU. The public comment period for the proposed plan began September 14, 2015, and ended December 14, 2015. A public meeting to present the proposed plan and preferred alternative was conducted on October 15, 2015.

The selected remedy outlined in the 2017 record of the decision for the Landfill OU is Alternative 3, Targeted Shallow Removal and Off-Site Disposal of FUSRAP-Related Material. Implementing this remedy will involve excavating FUSRAP-related materials exceeding cleanup goals in the top five feet of the surface, transporting them off-site, and disposing of them at a permitted disposal facility. The selected remedy satisfies the CERCLA threshold criteria and provides the best balance of long-term effectiveness, short-term effectiveness, and cost, and has the highest implementability of the three considered alternatives.

At the end of 2018, the Corps, Buffalo District, awarded two contracts to complete the cleanup of FUSRAP-contaminated soils at the Landfill OU. A remedial action contract was awarded to remove FUSRAP materials from the Landfill OU to a depth of five feet below ground surface, as specified in the 2017 record of decision, and package them for disposal. A second contract was awarded to transport and dispose of the excavated FUSRAP materials at a permitted disposal facility outside of New York State. Work plans were developed and field work began during the end of May 2019. Excavation is expected to be complete this month.

Next Step

After the Corps of Engineers has completed final grading and seeding the excavation areas during spring 2020, radon flux monitoring will be performed to verify that the Corps met the applicable or relevant and appropriate requirements, and a close out report will be prepared. Two years after completion of the close out report, the vicinity property will be transferred back to the U.S. Department of Energy Office of Legacy Management for long-term stewardship.

Administrative Record File

The administrative record file for the Tonawanda Landfill Vicinity Property contains CERCLA-related documentation used in the decision-making process for the site. Reports and documents in the administrative record file may be viewed on the Tonawanda Landfill website and by appointment at the Buffalo District.