

When Boundaries Are Blurry: Stakeholder Collaboration on Data Management and Long-Term Stewardship at the Tonawanda Landfill Site – 25278

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ABSTRACT

The Tonawanda, New York, Landfill Site is the US Department of Energy (DOE) Office of Legacy Management's (LM's) latest addition to its growing portfolio of sites. The Tonawanda Landfill site was transferred to LM by the US Army Corps of Engineers (USACE) Buffalo District under the Formerly Utilized Sites Remedial Action Program (FUSRAP) in May 2024. USACE successfully completed remediation of the site, which was added to FUSRAP as a vicinity property of the Tonawanda, New York, Site (the former Linde Air Products site). As a part of the site transfer, LM has assumed responsibility for environmental and geospatial data management and stakeholder engagement; due to the specific setting of the site, these two subject areas will present unique opportunities and challenges for LM in moving forward.

The property on which the site resides and the major infrastructure of the landfill itself are owned and operated by the Town of Tonawanda. This is a somewhat novel scenario for LM; its current site portfolio does not include many sites where the area under surveillance is mostly covered by infrastructure owned by another government entity. LM has responsibility to maintain the protectiveness of the remedy, completed following the Comprehensive Environmental Response, Compensation, and Liability Act, which remediated FUSRAP-related soil contamination beneath and immediately adjacent to the final town landfill footprint. A 1.5-meter (5-foot) cap of clean soil was backfilled in excavated areas and is mostly overlain by the landfill's side slopes and berm. The town is responsible for monitoring and maintaining the landfill under state regulatory requirements enforced by the New York State Department of Environmental Conservation (NYSDEC). The overlapping geospatial boundaries, environmental sampling data points, and nuanced delineation of responsibilities have the potential to cause confusion among local community members and stakeholders and also to create an opportunity for combined management and proactive surveillance of the site.

LM has undertaken actions during site transition and transfer to capitalize on this opportunity. LM organized and attended two in-person site visits with USACE, the Town of Tonawanda, and NYSDEC to discuss USACE cleanup activities, LM long-term stewardship responsibilities, the town's landfill closure, and NYSDEC perspectives. During those visits, LM also met with the City of Tonawanda, whose constituents live immediately north of the site, to understand community concerns and communications. Behind the scenes, LM worked with USACE over the 2-year transition period and then after site transfer to facilitate understanding of the specific roles and responsibilities at the site, and their ramifications for communications and data management, to avoid confusion and account for right-sized activities to ensure remedy protectiveness.

The specific methods and tools at LM's disposal for conducting long-term surveillance at sites under external ownership are evolving, which is very relevant for the future management of the Tonawanda Landfill site and for several FUSRAP sites to be transferred to LM's portfolio in the next 5 years. LM is carefully considering what data to make available on its public website, the Geospatial Environmental Mapping System (GEMS), to communicate the relevant site boundary and current monitoring points. LM and USACE also worked closely during transition to develop the most efficient means of database transfer, considering that USACE's FUSRAP Environmental Data Management System (which evolved from the US Air Force's Environmental Resources Program Info Management System) and LM's Environmental Quality Information System (EQuIS) are each configured to meet each agency's specific needs. Moving

WM2025 Conference, March 9 – 13, 2025, Phoenix, Arizona, USA

forward, typical site monitoring tools such as physical boundary monuments (which would likely be installed on the town's landfill cap) or aerial surveys (or both) will need to be closely coordinated with the town and will be subject to its approval if they are deemed necessary. LM is primarily concerned about the risk of climate change and potential erosion impacting the 1.5-meter protective cover, especially in the remediated areas beyond the landfill footprint.

While site transition from one federal agency to another may appear simply to be a massive exercise in paperwork, there are real challenges and implications when multiple governmental entities must communicate and collaborate to achieve their respective missions. Central to understanding roles and responsibilities, risks, and change at LM sites are monitoring activities and data management. Surveillance activities of appropriate scope and transparent communication are the foundation of responsible stewardship. LM looks forward to continuing to work closely with USACE to seamlessly transfer sites for long-term stewardship after remediation is complete and to working closely with the Town of Tonawanda and other landowners to ensure that the sites under DOE responsibility continue to be protective of human health and the environment into the future.

INTRODUCTION

The US Department of Energy (DOE) Office of Legacy Management (LM) welcomed the Tonawanda, New York, Landfill Site, as the 103rd site in its long-term stewardship portfolio in May 2024. The Tonawanda Landfill site was transferred from the US Army Corps of Engineers (USACE) Buffalo District to LM under the Formerly Utilized Sites Remedial Action Program (FUSRAP) upon completion of remedial action. The cleanup and transfer of the site was done in collaboration with the New York State Department of Environmental Conservation (NYSDEC) and the Town of Tonawanda, the landowner.

LM has accepted more than 70 sites over its 21-year life as an organization, but the process is not routine. Complications are created by each site's unique history, remedy, regulations, and stakeholders and by the consequential activities required by LM to ensure the continued protection of human health and the environment. As part of the closeout process for the Tonawanda Landfill site transfer, LM has documented lessons learned and considerations for future site transitions that will be applicable for other sites on land owned by an entity separate from LM, sites adjacent to waste owned by a separate entity, former vicinity property sites, and any sites accepting environmental and geospatial data from a cleanup organization.

LM will accept an additional 20 sites from USACE in the next 14 years. USACE is completing remediation for some of the more complex FUSRAP sites that will require more active maintenance and monitoring by LM. While the Tonawanda Landfill site is what LM categorizes as a "Category 2" FUSRAP site, or one that requires active monitoring and maintenance but no active treatment, a comparatively low level of effort is expected to be required, including inspections and reporting every 5 years and annual assessment reports performed as a best practice. There will be no groundwater monitoring, and most maintenance activities will fall to the Town of Tonawanda as the landowner responsible for the landfill. As a low level of effort Category 2 site, it will be a good case study for LM's processes and procedures and management best practices for its FUSRAP sites, including data transfers and inspection protocols with local stakeholders.

TONAWANDA LANDFILL'S HISTORY

The Tonawanda Landfill site has interwoven responsibilities held by DOE on behalf of the federal government and by the Town of Tonawanda itself. These responsibilities and their boundaries need to be explained in the context of the site's history.

The 69-hectare (170-acre) property consists of two areas known as the Landfill and the Mudflats. In the early 1900s, a quarry existed in the western portion of the landfill property. In the 1920s, the quarry was abandoned when it was inundated with groundwater at approximately 18 meters (60 feet) below surface level. The abandoned mine soon became a popular location to discard various materials, mostly yard

wastes discarded by residents. The site became the Town of Tonawanda municipal landfill in the mid-1930s. Wastes disposed in the landfill included ash generated by incinerators adjacent to the property, construction and demolition debris, and yard waste (leaves, branches, etc.) collected from town residents. The landfill occasionally accepted municipal solid waste and wastewater sludge. The landfill ceased to accept waste in October 1989 and began the formal closure process in 2007 [1].

The discovery of FUSRAP-related materials on the landfill property was coincidental to investigations of the nearby Linde Air Products FUSRAP site and an EG&G aerial survey performed in 1974. Another aerial survey was conducted by EG&G in 1984 at the request of the New York State Department of Health to investigate a contamination issue related to a company producing smoke detectors using americium-241 (Am-241). Both aerial surveys included flyovers of the Tonawanda Landfill, and both surveys showed gamma radiation anomalies within the landfill. Because Am-241 is mainly an alpha emitter with only weak gamma radiation emissions, gamma radiation signatures were not expected to appear in the 1984 aerial survey. In 1990, DOE approached the Oak Ridge National Laboratory to investigate travel routes from the Linde Air Products site to known disposal areas using mobile gamma radiation scanning. During this investigation, gamma radiation anomalies were also detected on the Tonawanda Landfill property. Biased soil samples were collected at various points along the routes and the Tonawanda Landfill [2]. An additional survey was conducted in 1991 at the Tonawanda Landfill utilizing gamma radiation surface scanning and soil sampling, the results of which concluded that FUSRAP-related materials had been disposed at the Tonawanda Landfill [3].

The source of FUSRAP contamination at the Tonawanda Landfill site was determined to be the Linde Air Products site. From 1942 to 1946, Linde Air Products processed uranium ore under contract with the Manhattan Engineer District. A three-step process was used to separate uranium from the uranium ores and tailings. The various steps produced uranium compounds used in each successive step to yield the end product, uranium tetrafluoride, a major component in uranium metal production [4]. Subsequent offsite disposal of processing wastes from the Linde Air Products site resulted in elevated levels of radionuclides at four nearby properties in the Town of Tonawanda, all of which are now FUSRAP sites: Seaway Industrial Park (Tonawanda North, New York, Site Unit 3), the Tonawanda Landfill site, and Ashland #1 and #2 (Tonawanda North, New York, Site Units 1 and 2) [5].

After DOE completed its investigation of the landfill property, the results indicated the contaminants were “not unlike material from the Linde Site.” In a 1992 memorandum, DOE designated the 69-hectare (170-acre) Tonawanda Landfill site for remediation under FUSRAP. DOE determined that portions of the Tonawanda Landfill site were “contaminated with radioactive residue as a result of activities of the Manhattan Engineer District and Atomic Energy Commission” [6].

In 1997, Congress reassigned the responsibility for characterizing, designating, and remediating FUSRAP-eligible sites to USACE. Congress directed USACE to perform remediation using the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. This was formalized in the 1999 Memorandum of Understanding between DOE and USACE [7]. As a result of this congressional action, USACE took over the FUSRAP investigation at the Tonawanda Landfill property.

USACE began the Remedial Investigation (RI) in 2001 for the Tonawanda Landfill and Mudflats Vicinity Property. In 2005, USACE completed the RI, and the report was released in 2006. The first of two baseline risk assessments (BRAs) was included in the 2006 RI. USACE released the Proposed Plan (PP) for the Tonawanda Landfill and Mudflats Vicinity Property in 2007. The two areas of the property, the 22-hectare (55-acre) Landfill and the 47-hectare (115-acre) Mudflats, were separated into operable units (OUs), and in 2008, USACE released the Record of Decision (ROD) for the Mudflats OU. Based on the determination in the ROD, the Mudflats OU was released with no further action required.

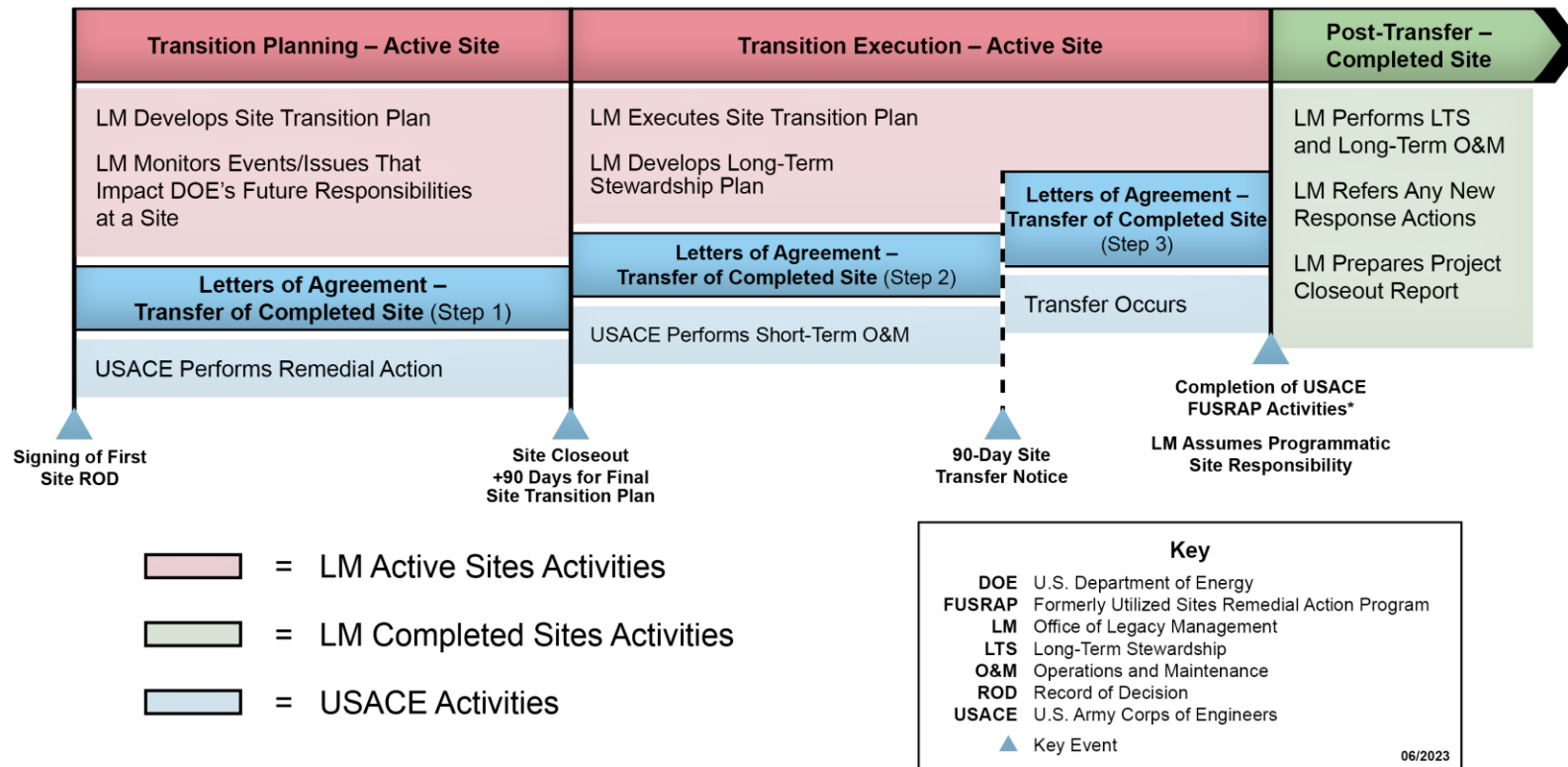
Additionally, USACE expanded the investigation of the Landfill OU from 2009 through 2011 and updated the BRA in 2012 to include the most recent data. The Landfill OU ROD was released in 2017,

calling for limited excavation and offsite disposal of FUSRAP-related wastes. Selecting Alternative 3, which consisted of excavation to 1.5 meters (5 feet) below grade and backfilling with clean fill material, would expedite the remedial action while meeting remediation goals. The ROD also requires, using CERCLA terminology, a Five-Year Review, which consists of a site inspection and assessment report every 5 years, otherwise known as a long-term periodic review (LTPR). Remedial action began in the Landfill OU in 2019 and was concluded in 2020. The Town of Tonawanda has since completed the Landfill closure under NYSDEC regulations.

TRANSFER of TONAWANDA LANDFILL SITE to LM

The accomplishment of the May 2024 site transfer to LM was the result of more than 2 years of collaboration among LM, USACE, the Town of Tonawanda, and NYSDEC. LM’s successful performance of long-term stewardship activities depends on a substantial knowledge transfer from USACE. Site transfers to LM follow an established process described in Figure 1.

The USACE team submitted the Tonawanda Landfill Site Closeout Report to LM in May 2022, kicking off the official 2-year transition period in which both LM and USACE worked closely together to share information, document site activities, set up long-term stewardship plans and resources, estimate long-term stewardship costs, transfer environmental and spatial data and records, and notify stakeholders of changing federal responsibilities and contacts. During the first year, LM focused its efforts on reading through the site documentation, including the PP, the ROD, the BRA, regulatory comments and responses, and other site background documents. LM and USACE conducted meetings to share more information context behind those documents, including the background behind remedial action decisions that were made, current and future monitoring commitments, and local community concerns.



Source Documents:

1999 Memorandum of Understanding Between the U.S. Department of Energy and the U.S. Army Corps of Engineers Regarding Program Administration and Execution of the Formerly Utilized Sites Remedial Action Program (FUSRAP).

2001 Letter of Agreement from USACE to DOE and 2002 Letter of Agreement from DOE to USACE.

LM Site Transition and Transfer Procedure, LM-Procedure-3-20-20.0.

Figure 1. Three-Step Transition Process.

Unique Roles and Responsibilities

Specific items of interest were the rationale behind a lack of groundwater monitoring at the site and the perspectives of NYSDEC and the neighboring City of Tonawanda regarding the FUSRAP waste. The lack of a requirement for groundwater monitoring followed a precedent set by the regulatory documents for the Linde Air Products site, which concluded that the local groundwater is impacted by industrial processes, and therefore any impacts from FUSRAP waste are inconsequential. In addition, the water table aquifer is considered nonpotable. LM met with USACE, Town of Tonawanda, NYSDEC, and City of Tonawanda representatives during two visits to the site in 2023 and 2024 to understand stakeholder perspectives. The City of Tonawanda noted that some residents in the neighborhood immediately north of the site were concerned about flooding in their backyards, which was perceived to be a result of the landfill capping project and discussed that concern with LM. The town shared information regarding its Tonawanda Landfill site capping project, and NYSDEC shared its feedback about both projects. Establishing open lines of communication and clarifying the changing point of contact for site concerns was an important part of the transition process.

LM spent significant time understanding the separate roles and responsibilities that LM and the town have for monitoring and maintaining the site. The Landfill is superimposed on most of the FUSRAP buried waste (see Figure 2). Closure of the landfill by the town includes a landfill cap. However, the landfill cap is not required by the FUSRAP remedy; the FUSRAP remedy required excavation of 1.5 meters (5 feet) of contaminated soil and shipment offsite, followed by backfilling and the compaction of clean fill material to grade, referred to as the protective cover.

Figure 3 shows the final landfill configuration following the completion of the final Phase II of the town's landfill closure. One FUSRAP excavation area (Area H) is not fully covered by the landfill cap but is covered by clean fill. LM will need to ensure that the protective cover, consisting of 1.5 meters (5 feet) of clean fill on top of the buried waste, remains intact.

The monitoring and maintenance that the town performs for the municipal solid waste landfill is not required for the FUSRAP remedy but will be informative for LM. In accordance with NYSDEC landfill regulations [8], the town is required to perform semiannual environmental monitoring and quarterly inspections of the landfill cap and is required to report those findings in an annual report. In addition to performing monitoring and inspection, the town will also be required to perform an inspection of the landfill cap following major rainfall events and maintain a maintenance log, all to be included within the annual report to NYSDEC [9]. LM has included an annual assessment as a best practice in its long-term activities. The annual assessment will seek to understand and summarize the town's activities, including any correspondence with NYSDEC and the surrounding communities, and relate those findings to any potential protectiveness impacts for the FUSRAP waste. This is significant because, for LM's required LTPR and inspection every 5 years, LM will have to make a protectiveness determination for the remedy as well as recommendations for improvements (if necessary). The protectiveness of the site hinges on some information that the town and LM will have to share, including any changes in land use (especially on the north side of the property where residents have historically accessed the site), any changes in landfill features, and any erosion that could affect the FUSRAP areas, including increased erosion due to climate change.



Figure 2. Tonawanda Landfill Site.

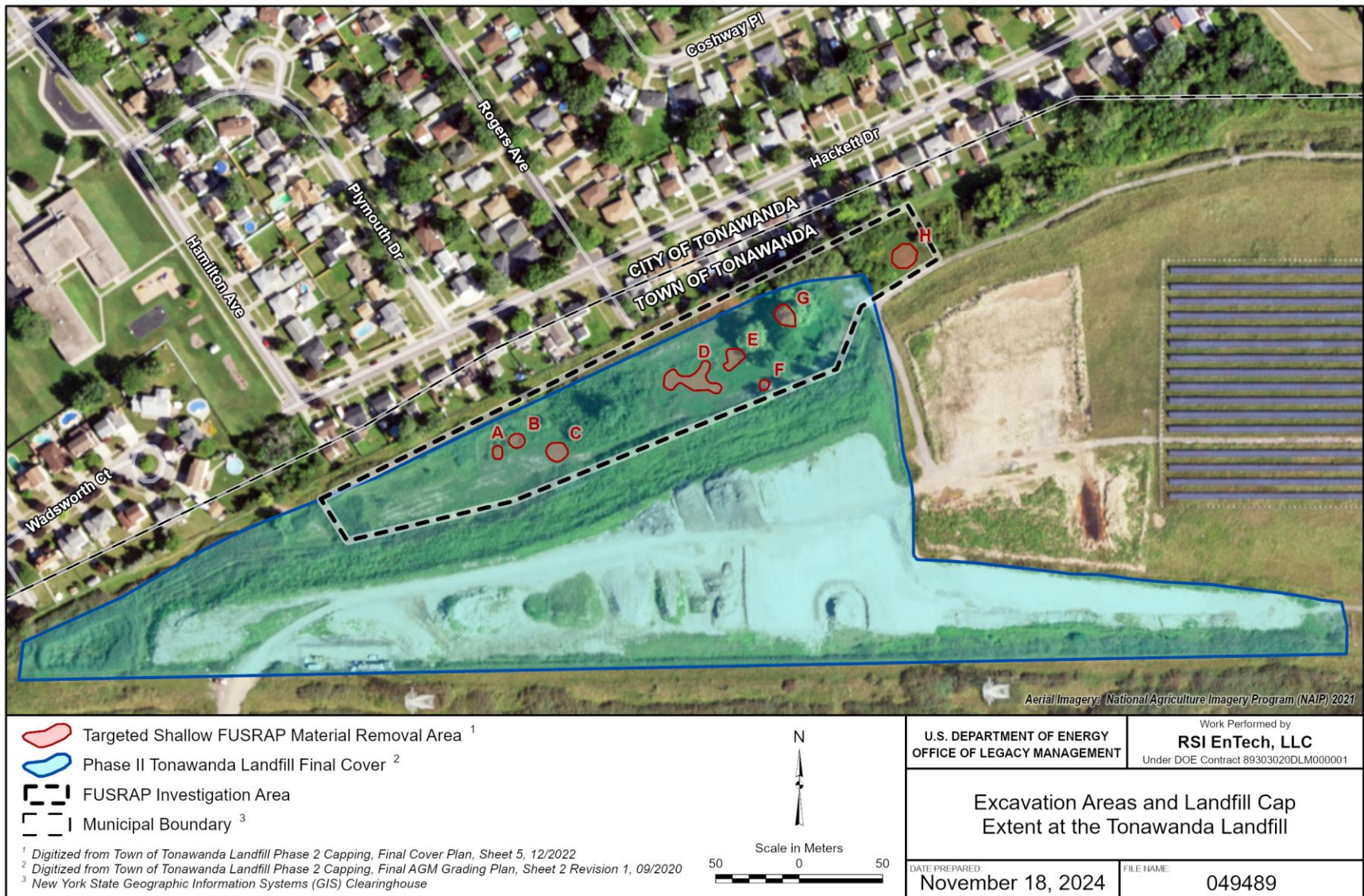


Figure 3. Tonawanda Landfill Site.

Traditional Transfer Activities – with a Twist

The complexity and the level of effort required to complete LM's data and records transfer processes are often underestimated. Two notable outcomes of the Tonawanda Landfill site data transfer process were a standard data checklist and a standard process for transfer of environmental data from USACE to LM.

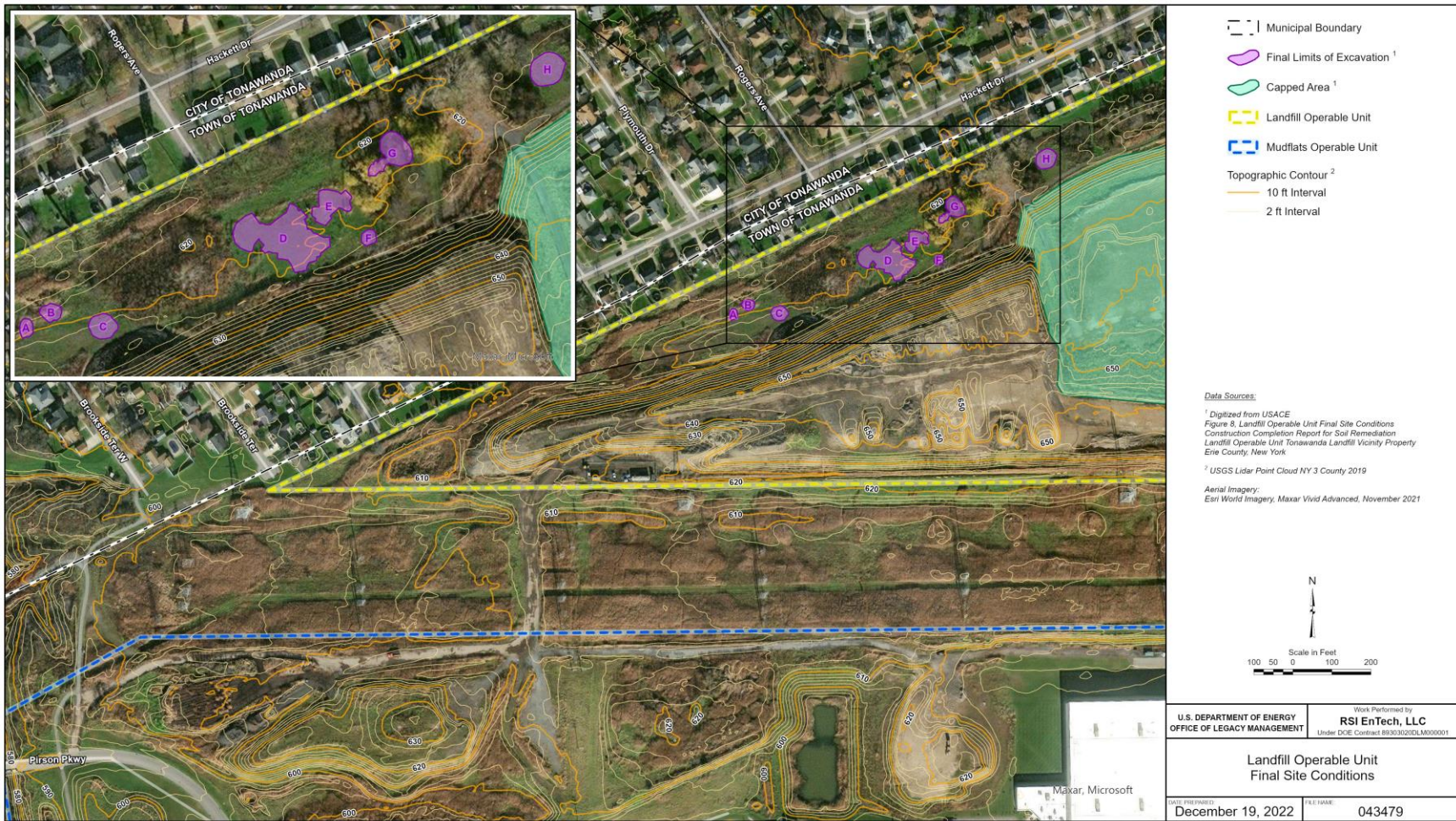
LM developed a standard checklist of data types to document the types and formats of available data transferred from USACE. In the future, when data are unavailable, USACE can document that they are unavailable and why. Positively documenting the unavailable data will satisfy a gap that has been identified in previous transfers to assist with questions that may arise in the future management of the site. It will also assist LM in documenting which types of data to make available via the Geospatial Environmental Mapping System (GEMS), LM's public-facing website.

LM and USACE spent considerable time discussing the most efficient method for environmental and geospatial data transfer, understanding that the Tonawanda Landfill site was the first of several site transfers coming soon and that potential efficient methods could be adopted by future transition teams. USACE manages FUSRAP data in the FUSRAP Environmental Data Management System (FEDMS), tailored from the US Air Force's Environmental Resources Program Info Management System. FEDMS data can be output to a Microsoft Access database with FEDMS structured tables, or the data can be output in other electronic data deliverable (EDD) formats, if so developed. LM considered whether or not to prescribe a specific EDD format for the USACE team to use that would work well with LM's Environmental Quality Information System (EQuIS) database. Ultimately, the LM team decided that, to ensure data integrity, it would be best to use the Microsoft Access FEDMS EDD format and map it onto EQuIS, as this would allow the most flexibility and ensure all the data were available for migration. In the future, LM anticipates that this will continue to be true and will establish appropriate standard operating procedures and lessons learned for this specific transfer of environmental data formats.

Finally, LM executed an easement with the Town of Tonawanda for site access. This easement allows LM to enter through the north side of the site and conduct FUSRAP-related inspection and monitoring activities, as well as any maintenance activities required in the future. A separate environmental easement was established between the Town of Tonawanda and NYSDEC regarding land use restrictions and acknowledgement of the buried contamination. This boundary was communicated to LM as the delineation of the outer extent of the buried contamination (Figure 4), including the eight FUSRAP excavation areas (areas A–H).

WHAT IS NEXT?

The nuances highlighted above, which are due to both the historical context of the site and the current management and recent transfer, have influenced a few areas of focus for LM in the future management of the Tonawanda Landfill site.



Abbreviation: ft = feet

Figure 4. Landfill OU Final Conditions with FUSRAP Excavation Areas (A–H).

Climate Resiliency

As climate change affects all the LM sites, resilient management is a focus for the program at large. LM conducted a technical review of the Tonawanda Landfill site documentation during the site transition, specifically with respect to the landfill construction, the FUSRAP waste, and potential susceptibility to climate change. LM found that the USACE team had adequately accounted for extreme weather events in its design calculations and that the town's landfill cap would be added protection for most of the FUSRAP site footprint. However, heavy precipitation and more extreme weather events are in some cases causing management challenges at some of LM's Uranium Mill Tailings Radiation Control Act sites with disposal cells. Precipitation runoff, if improperly monitored and managed, can cause areas of rill erosion, slope instability, and undercutting. While LM will not maintain the landfill cap, LM will conduct inspections every 5 years as part of the Five-Year Review required by the ROD. LM will keep informed regarding the town's annual monitoring activities to understand whether any part of the landfill or the FUSRAP clean cover soils are being impacted. LM plans to rely on observations of the LTPR site inspections at this time, focusing on the toe of the landfill and the FUSRAP areas not covered by its footprint. LM has utilized aerial imagery and data or terrestrial scanning at other sites to conduct more targeted investigations for surface change detection. In the future, LM may determine that these technologies are needed to maintain the structural integrity of the protective cover and landfill cap.

To facilitate the ease of visual inspections, LM will employ Esri Field Maps software, which will allow inspectors to walk the site utilizing georeferenced landmarks and boundaries. This is important because the FUSRAP waste is not visibly delineated or distinguishable from the rest of the town's landfill site. LM's site inspectors at other sites have had great success with these tools in pinpointing observations in space and referencing them over time. At a site where the boundary of the FUSRAP waste, the environmental easement, the town's landfill, and the overall parcel are all different, the accuracy of these georeferenced boundaries will be very important.

LM hopes to improve the site inspection process by installing physical boundary markers for some of the FUSRAP areas. This would need to be done in close collaboration with the Town of Tonawanda, as some boundary markers would necessarily be on the town's landfill cap, and some would exist in areas that require regular maintenance and mowing. LM proposes to eventually install boundary monuments that would be flush mount on the ground and would have anchors shallow enough to avoid damage to landfill synthetic liners. LM utilizes boundary markers at other sites as visual indicators to the inspection teams, as well as to other visitors, of where the DOE site is. This is another example of the complexity of long-term surveillance and management of a federal site within a property owned by another entity.

Data Management

LM has incorporated the environmental and geospatial data for the site into its databases, including the Esri-based LM geodatabase and EQuIS. There are significant historical data from the Tonawanda Landfill site, including radon flux surveys and historical groundwater monitoring, that tell an important story about the closure of the site but may not be updated by LM as the site ages. LM does not plan to conduct radon flux monitoring or perform groundwater monitoring as part of long-term stewardship due to the requirements of the remedy. LM's chief responsibility at the site is to ensure the 1.5-meter (5-foot) physical engineering barrier of the clean fill protective cover is intact and undisturbed.

There has been an interesting conversation among LM management regarding the merits of incorporating all site historical data into the EQuIS database upon site transfer, and regarding which data to post to the GEMS public website. LM has a requirement to preserve and store historical data and have them available as a record for future site managers and for the public, as requested. However, it takes time and taxpayer money to incorporate these data into the central database, which may not be necessary if they will not be posted to the public website. Historical data, such as groundwater monitoring data, are a good reference for

LM site managers to understand the water quality of the site in case questions arise in the future, but the data may be misleading if presented without context and instruction about future activities since LM is not required to and does not plan to collect groundwater data routinely as part of its management activities. For the Tonawanda Landfill site, the management team decided to incorporate all available historical data into EQuIS to continue gathering lessons learned and develop standard operating procedures for future transfers but may use that information to recommend a more limited incorporation of historical data into EQuIS in the future. LM is currently electing to only post the landfill and easement boundaries available on the GEMS website.

Stakeholder Communication

Continued collaboration with the Town of Tonawanda, NYSDEC, the City of Tonawanda, and the USACE Buffalo District will be crucial as the Tonawanda Landfill site matures. LM plans to perform its required site inspections as part of the Five-Year Review process and will plan to meet in person with available local representatives from the various entities. Because these meetings proved very beneficial during and shortly after site transition and transfer, LM will continue to foster face-to-face relationships. LM is committed to mitigating the risks of potential loss of focus on particular site needs or inadequate preservation and transfer of knowledge. Routine in-person meetings in the Buffalo, New York, area will confirm communication plans, notifications, and reporting requirements and desires; help to understand any concerns or issues; and ultimately confirm site observations performed by LM's inspectors.

LM has several other sites in the Buffalo, New York, area, including four within its current management portfolio and at least three that are currently scheduled to transfer from USACE within the next 14 years. The relationship of LM with the USACE Buffalo District, as well as with local and state government representatives, relates to more than just the Tonawanda Landfill site and forms the basis for management practices for the other sites. While LM does not have a local presence in the Buffalo, New York, area, the team is committed to staying very engaged through in-person visits, phone calls, and remote surveillance activities.

CONCLUSION

The nuances related to LM's newest site, the Tonawanda Landfill site, will inform LM's understanding of best practices and lessons learned for the management of institutionally controlled areas within a footprint managed by another governmental entity. The implications of this shared responsibility are manifested in LM's requirement to monitor the site, but also to keep in context the town's monitoring program and observations under their separate requirements with NYSDEC. LM has also started important conversations about environmental data transfer and management and best practices for geospatial references at sites where LM does not own the land. Above all, the Tonawanda Landfill site is a prime example of the importance of communication among government entities to ensure roles and responsibilities are clear. LM looks forward to continuing its work and expanding on the relationships the team has started building in the area; the majority of the work is yet to come.

REFERENCES

1. US ARMY CORPS of ENGINEERS, *Updated Baseline Risk Assessment for the Landfill Operable Unit of the Tonawanda Landfill Vicinity Property Tonawanda, New York*, Buffalo District Office (June 2012).
2. OAK RIDGE NATIONAL LABORATORY, *Results of Mobile Gamma Scanning Activities in Tonawanda, New York*, ORNL/RASA-90/6 (December 1990).
3. OAK RIDGE NATIONAL LABORATORY, *Results of the Radiological Survey at the Town of Tonawanda Landfill, Tonawanda, New York*, ORNL/RASA-92/12 (October 1992).
4. US ARMY CORPS of ENGINEERS, *Feasibility Study Report for the Groundwater Operable Unit, Linde Site, Tonawanda, New York*, Buffalo District Office (October 2004).
5. US ARMY CORPS of ENGINEERS, *Feasibility Study Report for the Landfill Operable Unit of the Tonawanda Landfill Vicinity Property*, Buffalo District Office (September 2015).
6. US DEPARTMENT of ENERGY, *Designation of Tonawanda Vicinity Properties*, memorandum by the director of the Division of Off-Site Programs, Office of Environmental Management (December 1992).
7. US DEPARTMENT of ENERGY and US ARMY CORPS of ENGINEERS, *Memorandum of Understanding Between the U.S. Department of Energy and the U.S. Army Corps of Engineers Regarding Program Administration and Execution of the Formerly Utilized Sites Remedial Action Program* (March 1999).
8. Title 6 NYCRR Part 363-9.6, “Post-Closure Care and Custodial Care,” *New York Codes, Rules, and Regulations*.
9. ENSOL, INC., *Draft Post-Closure Monitoring and Maintenance Plan for the Town of Tonawanda Landfill, Niagara Falls, New York* (January 2022).