



**UNITED STATES ENVIRONMENTAL PROTECTION  
AGENCY  
REGION III  
Four Penn Center  
1600 John F. Kennedy Boulevard  
Philadelphia, Pennsylvania 19103-2852**

**SUBJECT:** Long-Term Stewardship Assessment  
GROWS Landfill  
EPA ID: PAD000429589  
Bordentown Rd & New Ford Mill Rd  
Morrisville, PA 19067

**DATE:** March 9, 2023

**TO:** Alizabeth Olhasso, Branch Chief  
Long Term Stewardship File for GROWS Landfill  
RCRA Corrective Action Branch 2

**FROM:** Kristin Koroncai, Remedial Project Manager

**Remedy Assessment Summary:**

On September 23, 2022, the United States Environmental Protection Agency's (USEPA) Land, Chemicals, and Redevelopment Division (LCRD) representative, Kristin Koroncai, conducted a long-term stewardship assessment site visit of the GROWS Landfill (Facility) in Morrisville, Pennsylvania. Based on the site visit and file review information gathered concludes the Facility is meeting the objectives of the 2014 PADEP Post-Closure Permit or USEPA's final remedy selected in the 2014 Statement of Basis.

**Introduction:**

Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance with the final decision.

**Facility Background:**

The Facility is a closed municipal waste landfill located on approximately 457 acres of land at a bend in the Delaware River in Falls Township, Bucks County, PA (Attachment 1). The landfill areas occupy approximately 316 acres of the Facility. It is surrounded by parks, the Delaware River, man-made lakes, and industrial property. The Facility consists of multiple landfill areas; as landfill areas were added, they were overlayed to create a single graded contour. All of the landfill areas are closed and have a cover that consists of a cap, drainage layer, and vegetated soil cover. The Facility is partially underlain by dredged spoils and steel processing slag that were disposed of on the Facility prior to landfill operations. The Facility is owned and operated by Waste Management Disposal Services of Pennsylvania, Inc.

The EPA Final Decision (September 29, 2014) for the Facility requires compliance with the Pennsylvania Department of Environmental Protection (PADEP) Municipal Solid Waste Operating Permit No. 100148 and PADEP Resource Conservation and Recovery Act (RCRA) Post-Closure Permit No. 000 429 589. The operations at the Facility are regulated by the PADEP under both the hazardous waste program and the solid waste program. The Facility's operating requirements are specified in the PADEP Permits referenced previously. The operating requirements include continued inspection, maintenance, monitoring, and assessment of the landfill caps, groundwater monitoring system, leachate collection and treatment system, and gas recovery system. The PADEP Permits also impose land-use restrictions to prevent exposure to contamination and protect the integrity of the caps, groundwater monitoring systems, leachate collection and treatment system, and gas recovery system. Operations at the Facility are restricted to inspection, maintenance, and monitoring by authorized personnel. On September 30, 2014, EPA issued a Permit for Hazardous Waste Facility Post-Closure (EPA Permit No. 000 429 589). The EPA Permit mirrors the EPA Final Decision and requires compliance with the PADEP Permits. The EPA Permit will expire on September 30, 2024, unless continued.

#### **Current Site Status:**

The Facility was observed to be in satisfactory condition. The perimeter fencing was in satisfactory condition, continuous around the landfill, and well-marked. The vegetated cover of the cap was visually inspected; vegetation was maintained and no signs of maintenance issues that would affect the integrity of the cap were observed. Monitoring wells were observed to be in good condition and locked. The facility had a security gate to limit access to appropriate personnel. Recent monitoring data (Q3, 2022) was reviewed. Other than Iron and Manganese, which are naturally occurring in the aquifers on site, no other analyte exceeded applicable standards in the solid waste monitoring wells. In the Old Grows landfill monitoring wells, Ammonia was detected above standards in one well but was determined not to be indicative of leachate impacts as it was the only primary indicator parameter detected. In the Old Hughes landfill monitoring wells, Iron and Manganese exceeded standards. Ammonia and Benzene were detected above applicable standards, but again were determined not to be indicative of leachate impacts as the site-specific Post Closure plan specifies that three or more indicator parameters must exceed prediction limits to be indicative of a possible leachate concern.

#### **Long-term Stewardship Site Visit:**

On September 23, 2022, EPA conducted a long-term stewardship site visit with Waste Management to discuss and assess the status of the implemented remedies at the Facility.

The attendees were:

Name	Organization	Email Address
Kristin Koroncai	US EPA Region 3	<a href="mailto:Koroncai.kristin@epa.gov">Koroncai.kristin@epa.gov</a>
Kevin Curry	Waste Management	<a href="mailto:ncurry@wm.com">ncurry@wm.com</a>
Jennifer Wilson	PADEP	<a href="mailto:jewilson@pa.gov">jewilson@pa.gov</a>

#### **Implementation Mechanism(s):**

The Implementation Mechanism is the method for implementing IC and ECs required as a condition of the Statement of Basis and Final Decision. The summary of implementation mechanisms are described in Attachment 2.

### **Financial Assurance:**

Financial Assurance (FA) is required under the PADEP permits and therefore also satisfies the FA requirements for EPA. In April 2022, PADEP notified the Facility that the FA requirement of their PADEP permits had not been satisfied, as the bond amount had not been updated since 2016. In response, the Facility was submitted an updated bonding estimate to PADEP in September 2022 in the amount of \$4,168,493. This amount is significantly less than the \$53,440,045 surety bonds that existed when the EPA Final Decision was published in 2014.

### **Reporting Requirements/Compliance:**

Annual and/or quarterly reporting is required by the Facility, per PADEP permits, for groundwater monitoring, landfill inspection, NPDES surface water monitoring, LFG monitoring, Title V Permit, land leachate monitoring. The Facility has submitted reports in compliance with these requirements.

### **Mapping:**

The landfill area has been geospatially mapped and is available on the Facility's EPA Factsheet.

### **Conclusions and Recommendations:**

During review of the FA documentation, it was found that prior to an update in 2021, the FA estimate had not been revised since 2016. Review of the October 2013 Post Closure Manual noted an absence of FA reporting on Table 2-1 GROWS Landfill Post-Closure Responsibility Matrix. It is recommended that the FA annual calculation update and proof of bond adjustment is added to this table and any activities conducted during each year related to compliance with this requirement is provided in the existing annual reporting requirements. Additionally, EPA should investigate the reasoning for the difference in bond amount between 2014, when the EPA Final Decision was published, and the 2021 update.

The GROWS Landfill Post-Closure Manual (October, 2013) notes that the manual will be reviewed every 5 years. There was no indication this review has occurred since 2013. It is suggested that this review occurs at the stated frequency and any activities conducted during each year related to compliance with this requirement is provided in the existing annual reporting requirements.

Additionally, the GROWS Landfill Post-Closure Manual (October 2013) specifically notes that it does not cover the Old Grows portion of the landfill, as that is under a different PADEP (and EPA) hazardous waste permit. The Post-Closure Plan provided by the Facility, upon EPA's request, for the Old Grows portion was created in 2002 and submitted with their RCRA Part B

permit application; there is no evidence that this Plan has been updated since that time. It is recommended that EPA follow up with PADEP and the Facility to determine whether the Post Closure plans for the entire Facility can be in a single Plan and determine whether any updates are needed to the 2002 Plan.

**Files Reviewed:**

1. Pennsylvania Department of Environmental Protection (PADEP) Municipal Solid Waste Operating Permit No. 100148
2. PADEP Resource Conservation and Recovery Act (RCRA) Post-Closure Permit No. 000 429 589
3. EPA Permit No. 000 429 589
4. 2013. GROWS Landfill Post Closure Manual.
5. 2002 RCRA Part B Post Closure Permit Renewal Application (Post Closure Plan).
6. 2021 Annual Inflation Rate Update.

**Enc.:**

Attachments

Attachment 1. Map of GROWS Landfill Facility.





Attachment 2: Remedial EC/IC Summary Table.

Facility Name	GROWS Landfill			
Address	Bordentown Rd & New Ford Mill Rd, Morrisville, PA 19067			
EPA ID Number	PAD000429589			
Are there restrictions or controls that address:	Yes	No	Area(s)	Description of restrictions, controls and mechanism
Groundwater Use	X			monitoring and maintenance of monitoring and leachate systems per PADEP permits
Residential Use		x		Note: local zoning would prohibit residential use
Excavation	x			restrict disturbance of cap and cover
Vapor Intrusion		x		
Capped Area(s)	X			monitoring and maintenance of cap and cover
Other Engineering Controls		x		
Other Restrictions	X			Required to submit notice to deed of hazardous waste disposal at Facility

## LTS Checklist Template

<b><u>IC Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Have the ICs specified in the remedy been fully implemented? Implementation mechanism in place?	Y		
• Do the ICs provide control for the entire extent of contamination (entire site or a specific portion)?	Y		
• Are the ICs eliminating or reducing exposure of all potential receptors to known contamination?	Y		
• Are the ICs effective and reliable for the activities (current and future) at the property to which the controls are applied?	Y		
• Have the risk of potential pathway exposures addressed under Corrective Action changed based on updated screening levels and new technologies?		N	
• Are modifications to the IC implementation mechanism needed? (i.e. UECA Covenant, Permit or Order)		N	
• Are there plans to develop or sell the property?		N	
• Have all reporting requirements been met?	Y		

<b><u>Groundwater Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Is groundwater onsite used for potable purposes?		N	
• Is the Facility connected to a public water supply?			Unknown.
• Have any new wells been installed at the facility?		N	
• Are the current groundwater flow rate and direction similar as mentioned in the previous studies?	Y		
• Groundwater contaminants stable or decreasing in concentration?	Y		
• Are groundwater monitoring wells still in place (# wells)?	Y		

• Any evidence or reason to re-evaluate the number and location of monitoring points and/or monitoring frequency?		N	
• For wells where groundwater monitoring is no longer required, have the wells be decommissioned?			N/A
• Is there evidence of monitored natural attenuation occurring in groundwater?			N/A- there is a leachate system in place.
• Has (active remediation system) been maintained as necessary?	Y		
• Is the (groundwater containment system) effectively containing COCs and protecting potential receptors (surface water body and/or groundwater resource) via hydraulic control?	Y		
• Have notification letters been sent to the local POTW, County Department of Health, and Planning and Zoning Department regarding groundwater use restrictions?			Unknown. Follow up needed.

<b><u>Surface and Subsurface Soil Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Is the facility being used for residential purposes?		N	
• Have there been recent construction or earth-moving activities or plans for such?		N	

<b><u>Engineered Cap or Cover Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Have geosynthetic/vegetative landfill caps (name) been properly maintained?	Y		
• Have any repairs been necessary? (i.e. regrading, filling, root removal)	Y		
• Is the leachate collection system operating and effectively preventing groundwater contamination?	Y		



<b><u>Vapor Intrusion Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Have there been construction of new structures within the vapor intrusion restriction zone(s)?			N/A
• Is the vapor intrusion mitigation system radius of influence effective for the structure in which its installed?			N/A

<b><u>Miscellaneous Review and Assessment Questions:</u></b>	<b><u>Yes</u></b>	<b><u>No</u></b>	<b><u>Notes</u></b>
• Is the security fence intact?	Y		
• Is the appropriate signage posted?	Y		