

FORM 25 LEACHATE MANAGEMENT – PHASE II

Prepared 06/03; Rev 09/05, 03/12, 10/12, 11/12, 02/15, 02/20, 06/20, 08/20, 09/20, 11/2023

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Date Prepared/Revised <i>06/03, Rev 09/05, 03/12, 10/12, 11/12, 02/15, 02/20, 06/20, 08/20, 11/23</i>
DEP USE ONLY
Date Received

FORM 25 LEACHATE MANAGEMENT - PHASE II

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 25, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets should match the "date prepared/revised" on this page.

General References: 273.162, 273.163, 273.271 to 273.275/277.162, 277.163, 277.271 to 277.275, 285.122, 285.123

SECTION A. SITE IDENTIFIER

Applicant/permittee: *Westmoreland Sanitary Landfill, LLC*

Site Name: *Sanitary Landfill*

Facility ID (as issued by DEP): *100277*

SECTION B. BASIC TREATMENT METHODS

- 1. Discharge to permitted POTW, following pretreatment, if required, by federal, state or local law or by discharge into another permitted treatment facility.
- 2. On-site treatment and discharge to stream.
- 3. Spray irrigation following treatment.
- 4. Other: *An onsite Evaporator will be utilized as the primary disposal method with offsite leachate hauling as interim and emergency backup. Two existing POTW connections may be reactivated in the future.*

For Proposed Site: Will permanent leachate pre-treatment method be in-place before placement of waste? *N/A*

SECTION C. COMPONENTS OF LEACHATE TREATMENT PLAN

Check and/or Describe

- 1. Estimate of annual leachate quantity and quality and supporting calculations. *Attachment 25-1 & 25-2*
 - 2. Plans, designs, and cross sections for the proposed collection and handling system. *Attachment 25-4*
 - 3. Plans, designs, and cross-sections for on-site leachate treatment or disposal systems. *Attachment 25-4*
 - 4. Description of on-site treatment system already in operation, including NPDES number, capability to treat leachate, and compliance status under The Clean Streams Law. *N/A*
- 5. If interim vehicular transportation to an off-site treatment facility is proposed, provide:
 - a. Copy of signed contractual agreement with operator of off -site facility, or *N/A*
 - b. Signed letter of intent from operator of the off-site facility to enter a contractual agreement for leachate treatment. *Exhibit 25-4.1*
 - c. Copy of signed contractual agreement with the operator of a 2nd off-site facility as backup, or *N/A*
 - d. Signed letter of intent from operator of the 2nd off-site facility to enter a contractual agreement f or leachate treatment. *Exhibit 25-4.1*
 - e. Additional bond in amount sufficient to pay for the cost of vehicular transportation and off-site leachate treatment until final closure; if off-site treatment is negligent. *Bonding Calcs.*
 - f. Submit plans, designs, and cross-sections for an on site pretreatment facility. *N/A*
- 6. If recirculation of raw or pretreated leachate is proposed in conjunction with another method, describe:
 - a. Designs and cross-sections of leachate distribution method. *N/A*
 - b. Methods to prevent leachate seeps and breakouts. *N/A*
 - c. Methods to prevent odors, runoff, and ponding. *N/A*
 - 7. Schedule and method for cleaning sludges from the leachate storage and treatment system, and a plan for disposing of such sludges. *Attachment 25-4*
 - 8. Method for measuring average flow rate of leachate from landfill to leachate storage/treatment system. *Attachment 25-4*
 - 9. Identify if leachate pumping occurs. *Attachment 25-4*
 - 10. Plans and designs for secondary containment of underground pipes used for the transport of leachate from the liner system. *Attachment 25-4*

**THE FOLLOWING CHANGES ARE PRESENTED HERE FOR
FORM 25 Attachment 25-3**

1. This cover page and narrative replaces Attachment 25-3.

FORM 25 – LEACHATE MANAGEMENT - PHASE II

ATTACHMENT 25-3

**CURRENT AND PROPOSED LEACHATE COLLECTION AND HANDLING
SYSTEMS**

This narrative has been newly prepared to present a summary of the existing leachate collection and handling systems at the facility. Additionally, this narrative discusses the leachate evaporator system being proposed as the primary method of disposal where trucking for offsite disposal may be utilized as an interim and emergency backup method.

Site Description

The Westmoreland Sanitary Landfill includes two disposal areas. There is an old approximately 20-acre unlined disposal area along the western limit of the existing landfill footprint. This older area was previously closed with a geomembrane cap and does not include a leachate collection system. The other disposal area consists of the Phase I/II/III area as well as the Southern and Northern Expansion Areas. These areas all include dual-liner systems and leachate collection systems. Future portions of the Southern Expansion will overlay the closed old unlined disposal area such that the geomembrane cap will remain in place and a new dual-liner system will be installed above the cap.

The following sections summarize the existing and proposed leachate collection and handling systems.

Existing Leachate Collection and Handling System

The existing landfill footprint includes the Phase I/II/III area and portions of the of the southern expansion area. Leachate collected within the lined Phase I/II/III area drains to a common sump and exits the lined landfill footprint through two permanent gravity penetrations and from there flows through dual-contained leachate piping to Manhole 3B. Leachate collected within the southern expansion area will drain through two permanent sumps (Cell S1 and Cell S6) of which one (Cell S1) has already been constructed. Leachate will drain from the sumps via gravity penetrations through dual-contained leachate piping to Manhole 3B. The future northern expansion area will include a total of three (3) sumps (located in Cell N1, Cell N5, Cell N6) which will collect leachate to be pumped into a future forcemain to be installed around the western landfill perimeter and transmit leachate down to Manhole 3B.

Manhole 3B consists of a series of HDPE manholes designed to provide valving and flowmeters to be able to individually monitor liquid flow through leachate collection and detection zones. The collection and detection flow from the three (3) permanent gravity sumps (Phase I/II/III, Cell S1 and Cell S6) passes through Manhole 3B and combines into one dual contained leachate conveyance pipe. Additionally, the future northern leachate forcemain from which liquids collected and pumped from the three (3) northern sumps (Cell N1, Cell N5 and Cell N6) discharges into this main dual-contained leachate conveyance pipe. Liquids then flow from Manhole 3B towards the onsite leachate storage tanks (2 existing, 1 future) where leachate may be temporarily stored or bypass the tanks for offsite discharge.

Currently, the existing leachate storage tanks are being used for flow equalization with the use of an electronic valve and flowmeter installed within a manhole directly downstream of the leachate storage tanks. Leachate exiting the tanks flows via gravity through dual-contained leachate piping towards the landfill entrance. All leachate is currently being loaded onto trucks for off-site disposal via the existing secondary containment area at the landfill entrance. **The loadout area includes one 21,000-gallon fixed axle storage tank**

(commonly referred to as a “frac” tank). A similar style tank with the same or less storage volume may be utilized. The geosynthetic containment area provides greater than 110% containment capacity for the frac tank. The loadout tank may remain in the secondary containment area but will typically be empty. The loadout tank may be used to pump any liquids within the containment area into the loadout tank which can be removed by leachate haulers as needed. The site has two direct connections to POTW facilities (Belle Vernon and Mon Valley) that are currently inactive but may be reactivated in the future.

In the event that WSL intends to send leachate via pipeline to an approved POTW, WSL will notify the PADEP at least five (5) business days prior to conveying any leachate to the POTW and the following information must be included.

- Point of interconnection with the sewer system
- Name and operator of the POTW
- Proof of any necessary sewage planning approval
- Copy of the signed service agreement with the POTW
- Documentation that the POTW is authorized by its governmental regulatory agency to accept landfill leachate and documentation that WSL provided POTW with laboratory analytics representative of the type and characteristics of WSL’s leachate prior to entering into an agreement
- Location of any existing combined or sanitary overflows from the system between the point of connection and the POTW. Information on the overflows such as location, extent and quantity shall be requested from the applicable POTW and included in the submission to the PADEP. WSL shall indicate any information not provided by the POTW as part of the submission.

Proposed Leachate Collection and Handling Systems

The proposed system will include the installation of a leachate evaporator, Hydrocarbon Recovery Technology (HRT) system and a process tank. Additionally, a pump station and piping network will be installed in support of the proposed equipment. The proposed modifications will occur within the existing leachate system between Manhole 3B and the existing onsite leachate storage tanks. Leachate flowing from the existing gravity conveyance line will enter a new pump station where it can be pumped to the west to the existing gas management system area where it will pass through the HRT and enter into a process tank. The process tank will be utilized for flow equalization prior to entering the leachate evaporator. The proposed evaporator unit will be the primary method of treatment for the landfill facility where daily leachate in excess of the evaporator capacity will bypass the evaporator, re-enter the gravity leachate conveyance line and flow towards the existing onsite leachate storage tanks. The existing tanks may be used for flow control and temporary storage. Leachate may then be sent back to the proposed pump station via a dedicated dual-contained pipe and inline pump, then pumped back to the leachate management area for

evaporation. From the tanks, the system also allows for leachate to gravity flow to the existing leachate truck load-out area near the landfill entrance where it may be trucked offsite as an interim or emergency disposal method. Following installation of the evaporator, leachate trucking will only be allowed during emergency scenarios. Additionally, the existing direct connections to POTW facilities (Belle Vernon and Mon Valley) may be reactivated in the future should an agreement be established.

The proposed changes to the leachate management system are further described in the Form 25 Narrative and Attachments as well as the revised Permit Drawings included with this Minor Permit Modification. Additionally, a leachate flow diagram depicting the proposed leachate management system is included here.

**THE FOLLOWING CHANGES ARE PRESENTED HERE FOR
FORM 25 Attachment 25-4 Exhibit 25-4.1**

1. This cover page replaces the previous Attachment 25-4 Exhibit 25-4.1 cover page.
2. The Greentree Landfill and Johnstown Redevelopment Authority documents are to be added at the end of Attachment 25-4 Exhibit 25-4.1.

FORM 25 – LEACHATE MANAGEMENT - PHASE II

ATTACHMENT 25-4

NARRATIVE RESPONSES

Exhibit 25-4.1

Acceptance Letters from POTW Facilities for Offsite Disposal

The facility currently has written acceptance to haul leachate to the following four (4) offsite locations. The written acceptance from each facility is included here.

- **City of Alliance Municipal Sanitary Authority – Alliance, Ohio**
- **Seneca Landfill, Inc. – Butler County, Pennsylvania**
- **Westerly Waste Water Treatment Plant – Duncansville, Pennsylvania**
- **Eastern Ohio Regional Wastewater Authority – Bellaire, Ohio**
- **Greentree Landfill – Kersey, PA**
- **Johnstown Redevelopment Authority (Dornick Point) – Johnstown, Pennsylvania**



February 6, 2023

VIA ELECTRONIC DELIVERY

Richard Walton
Westmoreland Sanitary Landfill, LLC
111 Conner Lane
Belle Vernon, PA 15012-4519
rwalton@nobleenviro.com

Re: Additional Facility for Leachate
Sanitary Landfill
Permit No. 100277
Rostraver Township, Westmoreland County

Dear Mr. Walton:

As required by Paragraph 5 of the February 13, 2020 Consent Order and Agreement, Sanitary Landfill has requested written approval from the Department of Environmental Protection (DEP) to transport its landfill leachate to an additional treatment facility. The request to transport landfill leachate from Sanitary Landfill to the Greentree Landfill wastewater treatment facility was initially made by email dated August 1, 2022 from Jason Horan; however, due to Greentree Landfill NPDES compliance issues, approval was not granted at that time. On February 1, 2023 a second email request for written approval to transport Sanitary Landfill leachate to the Greentree Landfill wastewater treatment plant was received from Michael Zucatti. After consultation with the DEP Northwest Regional Office Clean Water Program, we have decided to approve the request.

This letter grants written approval for leachate from Sanitary Landfill to be transported to the Greentree Landfill wastewater treatment facility for processing. If it is determined that this additional leachate is the cause of non-compliance with the Greentree Landfill NPDES permit, then this approval will be rescinded.

If you have any questions, please contact me at **412.442.4130**.

Sincerely,

Sharon Svitek
Program Manager
Bureau of Waste Management

cc: B. Minemyer (bminemyer@nobleenviro.com)
J. Horan (jhoran@nobleenviro.com)
M. Zucatti (mzucatti@nobleenviro.com)
J. Dickey, DEP NWRO (judickey@pa.gov)
L. Fike, DEP SWRO (lafike@pa.gov)
Region



March 30, 2022

VIA ELECTRONIC DELIVERY

Richard Walton
Westmoreland Sanitary Landfill, LLC
111 Conner Lane
Belle Vernon, PA 15012-4519
rwalton@nobleenviro.com

Re: Additional Facility for Leachate
Sanitary Landfill
Permit No. 100277
Rostraver Township, Westmoreland County

Dear Mr. Walton:

As required by Paragraph 5 of the February 13, 2020 Consent Order and Agreement, Sanitary Landfill has requested written approval from the Department of Environmental Protection (DEP) to transport its landfill leachate to an additional treatment facility. The request was made by email dated February 24, 2022 from Mr. Jason Horan.

This letter grants written approval for leachate from Sanitary Landfill to be transported to the Johnstown Redevelopment Authority Dornick Point Sewage Treatment Plant for processing. Prior to transporting your leachate to this facility, you should be sure that the Dornick Point Sewage Treatment Plant has all of the approvals that they need from the DEP's Clean Water program to accept this additional waste stream.

If you have any questions, please contact me at **412.442.4130**.

Sincerely,

Sharon Svitek

Sharon Svitek
Program Manager
Bureau of Waste Management

cc: B. Minemyer, bminemyer@nobleenviro.com
J. Horan, jhoran@nobleenviro.com
C. Kriley, DEP CW
L. Fike, DEP WM
Region