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March 5, 2026

PADEP Northeast Regional Office
Attn: David F. Matcho, P.E.
Environmental Engineer Manager
Waste Management Program
2 Public Square
Wilkes-Barre, PA 18701-1915

RE: ERSI C&D Landfill
Second Technical Deficiency Letter
Major Modification Application for Phase IV Redesign
Application #100932-A251
APS No. 1138570, Auth No. 1529352
Taylor Borough, Lackawanna County
Response to PADEP's Letter Dated 2/27/2026
Our file: b/1338.1/RL02272026

Dear David:

On behalf of Environmental & Recycling Services, Inc., please accept this correspondence in response to your Second Technical Deficiency Letter dated 2/27/2026 regarding the above referenced plan. The responses are in **bold** for easier reading.

General

1. All amended forms submitted in response to this technical deficiency letter, and the technical deficiency letter dated November 6, 2025, must fully replace the forms submitted with the original application.

   UNDERSTOOD. Upon permit issuance, final versions of the application binders will be distributed electronically incorporating revised forms and the TDL's.

Form 14 – Operation Plan

2. The Construction Sequence Overview must clearly indicate that final capping is completed after each Stage of construction to be consistent with the Stage Sequence drawings.

The Construction Sequence Overview in Form 14 has been revised to clearly indicate the timing of final capping of portions of the landfill at final grade consistent with drawing sheets LF-13 through LF-15. (See Attachment 1)

3. Please revise the acceptable waste list to omit "household cleanouts" as household cleanout waste is not an acceptable waste type to be disposed at a construction and demolition waste landfill.

   The Acceptable Waste List (Attachment 1-1) in Form 1 has been revised to remove household cleanout. (See Attachment 2)

Form 28 – Closure/Post-Closure Land Use Plan

4. The form states that closure of the landfill will result in final capping of the entire landfill. Please revise this to clarify that final capping will occur in each stage as per stage construction drawings and revised Construction Sequence Overview.

   The Form 28 Closure Plan Narrative has been revised to clarify Final Capping schedule per the drawing sheets and Construction Sequence Overview. (See Attachment 3)

5. Please identify how closure of the landfill will be financed as bonding ensures funds are available for the department to conduct closure of the landfill, it does not provide funds for the operator to conduce closure.

   ERSI will have an internal reserve that they will fund as tonnage is received to cover the cost of final closure projects.

Bonding Worksheet I – Leachate Management

6. Please revise Bonding Worksheet I to include/amend the following:
   - Costs for regular quarterly leachate sampling and any sampling required by the POTW.
   - Leachate discharge costs for the specific POTW which ERSI will be discharging leachate to.
   - Costs for periodic cleanouts of all leachate storage tanks.
   - All costs associated with operation and maintenance of aeration equipment and any other equipment associated with leachate management.

   Bonding Worksheet I has been revised to include both quarterly leachate sampling and monthly sampling for the POTW. The worksheet has been updated with discharge costs to the local POTW. The worksheet has been updated to include cost for periodic leachate storage tank cleanouts as well as maintenance of the aeration equipment. (See Attachment 4)

In the event any questions arise concerning this correspondence, please don't hesitate to contact this office at your convenience.

Very truly yours,
MARTIN AND MARTIN, INCORPORATED

Kevin Bodner

cc: Taylor Borough (via email: cbellucci@taylorborough.com
Lackawanna County Planning Commission (via email: donatoml@lackawannacounty.org)
Lackawanna County Commissioners (via email: reedlo@lackawannacounty.org)
CastellaniJ@lackawannacounty.org, and koruszkoa@lackawannacounty.org

Attachment 1

FORM 14
OPERATION PLAN – PHASE II
ERSI CONSTRUCTION/DEMOLITION LANDFILL

Section C.

1. The Phase IV Expansion Operation Plan presented herein has been prepared to be consistent with the Phase I through III Operations Plans and the previously approved Phase IV Plan contained in the previous permit applications, revised to be consistent with PADEP regulatory review comments and responses, applicable permit conditions and updated information, such as current listing of equipment and employees. The intent of this operating plan is to essentially continue to use the same operational procedures and methods employed in the present operations under PADEP Permit No. 100932. Accordingly, the presently permitted Form 14 Operational Plan covering Phases I through III of the ERSI Construction Demolition Landfill is provided in Attachment 14-1 and is utilized where applicable.

   The Phase IV Construction Demolition Landfill expansion will be a construction/demolition landfill with a lined "base" and leachate collection system, located adjacent to and partially overlapping the existing Phase I through III construction/demolition landfill and the closed Amity (municipal waste) Landfill within the existing permit area. The property is permitted by the Pennsylvania Department of Environmental Protection (PADEP) under permit number 100932. The proposed expansion will be entirely within the permit area, located in Taylor Borough, Lackawanna County, Pennsylvania and situated at 1100 Union Street (S.R. 3010/L/R/35051).

2. Schedule of Filling

   The site will be developed in five (5) stages, as shown on the drawings. Consistent with the Phase I-III Operation Plan and the variability in generation of construction/demolition waste, distinct "cells" are not proposed so that the site will continue to be developed on an as-needed basis. Construction of additional lined footprint will be concurrent with landfilling so that there will be no interruption in service to the ERSI customers. Using an average waste acceptance rate of 1,350 tons per day for 6 days per week and 52 weeks per year, the Phase IV expansion has an expected life of approximately 4.8 years. A schedule based on these assumptions is provided below, using the initiation of filling of Phase IV, Stage 1 as day 1 of Year 1. The actual schedule will vary based on actual waste acceptance rates and actual in-place densities.

CONSTRUCTION SEQUENCE OVERVIEW

Stage 0

0-1) Construct Stormwater/Sediment Basin No. 3, Water Re-use Basin and Level Spreader followed by Temporary Stormwater Diversion Area. Seed and Mulch.

0-2) When a grass cover is established on the facilities constructed in Step 0-1, proceed to Stage 1. – **Already completed**

Stage 1 – Longevity = 0.88 to 1.75 Years

NOTE: Steps 1-1 and 1-2 can be completed concurrently.

1-1) Excavate sediment from existing Stormwater/Sediment Basin No. 2 and construct Basin modifications. – Already completed.

1-2) Construct Stormwater/Sediment Basin No. 4. – Already completed.

1-3) Install proposed Diversion Culvert on North side existing downdrain CC-1 outlet.

1-4) Construct Stage 1.

Stage 2 – Longevity = 2.16 to 4.3 Years

2-1) Construct Stage 2 Cell.

2-2) Complete Final Capping of Stage 1 that is at Final Grade (see drawing Sheet LF-13).

Stage 3 – Longevity = 0.375 to 0.75 Years

3-1) Construct Stage 3 Cell.

3-2) Complete Final Capping of Stage 2 that is at Final Grade (see drawing Sheet LF-13).

Stage 4 – Longevity = 0.925 to 1.85 Years

4-1) Construct Stage 4 Cell.

4-2) Complete Final Capping of Stage 3 that is at Final Grade (see drawing Sheet LF-14).

Stage 5 – Longevity = 1.03 to 2.05 Years

5-1) Construct Stage 5 Cell.

5-2) Complete Final Capping of Stage 4 that is at Final Grade (see drawing Sheet LF-14).

5-3) Complete capping when filling is complete (see drawing Sheet LF-15).

5-4) The intent of this operating plan is to essentially continue to use the same operational procedures and methods employed in the present operations under PADEP Permit No. 100932. Accordingly, the presently permitted Form 14 Operational Plan is provided in Attachment 14-1 and will be utilized where applicable.

The conventional area-fill method of landfill will be used at this site. Initially, the waste will be unloaded and spread in a series of thin, compact layers on an inclined working face. The C/D waste will be spread in layers generally two (2) feet in thickness. This method minimizes both open surface area and the quantities of cover material required.

Burning of C/D waste at the facility is prohibited.

Section D.

1. Dams, embankments, ditches and impoundments are addressed as follows:

   a. *Dams* – No dams are proposed for the facility.

   b. *Embankments/Berms* – Berms, which are constructed surrounding the perimeter of the landfill, will be developed as part of the site preparation for each stage's disposal field. All perimeter berms will remain as part of the site and will not be removed.

   c. *Ditches/Channels* – Channels will be constructed as part of the Erosion and Sedimentation Control Plan. All permanent channels will remain throughout the life of the site and through post-closure land use. Temporary channels/diversions will be constructed and removed in accordance with the Erosion and Sedimentation Control Plan. All ditches/channels will be inspected periodically and maintained as necessary to allow for proper function.

   d. *Impoundments* – Impoundments at this site consist of two (2) existing erosion and sedimentation control basins and one (1) proposed erosion and sedimentation control basin, Basin No. 3. The existing erosion and sedimentation control basins were constructed pursuant to previously permitted Erosion and Sedimentation Control Plans. No modifications are planned for the existing basin Nos. 1 and 2 and they will remain in place during the active life of the Phase IV expansion. Basin No. 3 was constructed

e. as part of Stage 0 construction and will remain in place during the active life of Phase IV expansion. All basins will be maintained and utilized during post-closure. Removal of the basins upon completion of the post closure period is not planned.

f. *Borrow Areas, Soil Storage and Handling Areas*: Soils to be utilized for cell construction, sediment basin construction and intermediate and final cover will be obtained from off-site sources. It is anticipated that the cell construction soils and sediment basin materials will be delivered as construction progresses. Intermediate and final cover soil will be stockpiled in the areas shown on the drawings and will be stabilized with sedimentation control devices such as straw bales or silt fences, as shown on the drawings.

   The soil stockpiles remaining undisturbed for a period of more than thirty (30) days will be stabilized using temporary vegetation, as noted in the Revegetation Plan, Form H, to protect the areas from wind and water erosion.

g. *Scales and Weigh Station* – The existing scales at this facility will remain at the location shown on the drawings during the life of the Phase IV expansion. The scales may be removed or relocated on site after completion of the active life of the facility. Since the scales are the above-ground type, no backfilling of pits will be necessary. The vacated area will be graded and surfaced with asphalt or stone aggregate paving.

h. *Water and Air Pollution Control Facilities* – No water pollution control facilities other than the sediment control basins are proposed for the ERSI site. The basins are permitted by PADEP as a general permit (PAG-3) for discharge of stormwater from industrial facilities.

   The only air pollution control facility is the on-site gas management equipment. Pursuant to the Air Quality Program Operational Permit presented in Attachment K-3, none of this equipment will be removed from the site without approval from the PADEP. Gas management equipment will remain in place until the gas generation rate is not sufficient to operate. Gas management equipment will not be removed without PADEP approval.

i. *Erosion Control Facilities* – Erosion and Sedimentation Control Facilities, such as diversion ditches, sedimentation basins, terraces, and conveyance channels, will be constructed as part of the staged construction of the Phase IV expansion. All Erosion & Sedimentation Control Facilities will be maintained and retained as outlined in the Erosion and Sedimentation Control Plan, Form I.

j. *Equipment Storage, Maintenance and other Buildings* – Structures such as the office, maintenance and garage buildings will be retained throughout the active life of the landfill. No plans are provided for their removal. See accompanying plan drawings for the locations of the existing landfill office and support buildings.

The following is a list of equipment owned or leased by the applicant:

Type	Make/Model
Loaders (1)	CAT 950
Off-Road Trucks (2)	CAT 730
Excavator (1)	CAT 336
Backhoe (1)	CAT 420
Dozers (1)	CAT D-6
Dozers (1)	CAT D-8
Compactor (2)	CAT 826
Sweeper	TBD
Water Truck	TBD

This equipment will be maintained at the site, or nearby, for landfill operating purposes.

The equipment list will vary periodically and will be updated as appropriate. This equipment will provide sufficient standby capability to maintain consistent landfill operation.

All Equipment will be maintained in working condition by the applicant.

A sufficient number of ERSI employees are available to operate the necessary earthmoving equipment. Operators will have a good working knowledge of the various pieces of equipment and the steps necessary for safe and efficient landfill operation. Additional employees or outside contractors will be employed during construction.

k. *Access Roads* – Access roads will be maintained throughout the active life of the landfill and during post-closure. Roads will be constructed/removed as necessary during construction and filling.

l. *Leachate Storage Tanks* – Two (2) 500,000 gallon dual-contained leachate storage tanks will be located adjacent to cell stage 5. Both tanks will be fitted with aeration for pre-treatment, if needed, prior to discharge to the POTW. A loading station will be constructed as well to truck leachate in the event of a temporary shutdown of the POTW.

Section E.

PERSONNEL TRAINING PLAN

Hiring

The most important ingredient in maintaining an efficient and successful operation is careful selection, training, and supervising of employees. The operation of a landfill is a complex task involving detailed procedures and utilizing expensive heavy equipment. Hiring procedures must ensure that employees selected will be able to assist in operating the facility properly under potentially adverse conditions. To ensure efficient operation, employees must be trained to a level corresponding to their job functions and responsibilities.

The Operations Manager (OM) is responsible for day-to-day site operations. The individual must possess supervisory, management and communication skills to be able to provide guidance to and direct site workers. The OM must be completely familiar with all aspects of the landfill activities and oversee all operations. The OM is responsible for all heavy equipment operations and maintenance. A full working knowledge of all equipment used and sequential operations must be shown by the OM. The OM must demonstrate proper care for equipment, a willingness to follow proper site regulations, the ability to avoid accidents, and the ability to resolve potential hazards or problems quickly.

The Operations Crew should not only have full knowledge of their assigned pieces of equipment, but should also be capable of operating and maintaining each piece of equipment. This ability is invaluable when an emergency situation arises. All members of the Operations Crew must have access to, and full working knowledge of the PPC Plan in the event of an emergency situation.

Training

Various methods of training employees are available depending on facility needs. On the job training, training by vendors or classroom training may be used.

The Operations Crew (OC) should attend training sessions which pertain to that particular job and responsibility. They should be provided an overview of site operations and hazard recognition, as well as the following areas:

1) Employees rights and responsibilities
2) Site Safety Plan
3) Safe work practices
4) Nature of anticipated hazards
5) Information on hazards control and prevention
6) Rules and regulations for vehicle/equipment use
7) Safe use of field equipment
8) Handling of wastes
9) Applicable supervisory skills

New employees should be guided and closely supervised during the first few performance periods. If necessary, additional follow-up training will be provided so the employee develops good work practices.

The OM will receive the same training as the OC as well as additional training to enhance his ability to provide guidance and make informed and intelligent decisions. Additional training includes supervisory skills, planning and management of site clean-up operations, and proper communication techniques.

Section F.

The disposal area will be marked using flags or visible painted stakes. The flags or stakes will be utilized to establish the amount of disturbed area for the development sequencing consistent with the stage drawings and the grid coordinate system shown thereon. Markers damaged or knocked over by equipment will promptly be replaced.

The sign at the ERSI Construction/Demolition Landfill is constructed of weather resistant material and painted with a light background and contrasting letters and numbers, these being a minimum of three (3) inches in height. The sign presently contains the following information:

ENVIRONMENTAL & RECYCLING SERVICES
CONSTRUCITON/DEMOLITION LANDFILL
PERMIT #100932
HOURS OF OPEARTION:
Monday – Saturday, 7:00 A.M. – 4:30 P.M.
NO LIQUIDS ACCEPTED
NO HAZARDOUS WASTE ACCEPTED

Section G.

1. ERSI anticipates receiving an average of up to 1,350 tons per day of construction/demolition waste. A detailed justification of this volume is provided in Section 4.0 of Attachment D-9, describing the need for the facility.

2. Not Applicable.

3. To measure tonnages, a pitless scale is utilized. The scale conforms to the Weights and Measures Act of 1965 (73 PS Section 1651-1692) and regulations thereunder. The scale will be inspected in accordance with the act and maintained on a quarterly basis to ensure accuracy.

The landfill will be responsible for maintaining an operational record for each day that waste is received, processed, or disposed and each day that construction, monitoring, or post-closure activity occurs per Section 277.311 of the Municipal Waste Regulations. An annual operation report will also be submitted to the Department per Section 227.312. All reports will be submitted on forms provided by the PADEP.

Section H.

1. A background monitoring program has been in place since 1996 which monitors the existing construction/demolition waste landfill and the closed municipal solid waste landfill where the expansion has been sited.

   Every employee has been adequately trained to perform his/her job in a safe and efficient manner. This training begins with the employee's first day of employment. They are made aware of the landfills operational policies, all safety equipment and its location, also the chain of command.

   The following Waste Handling Plan will provide a guideline for landfill employees in the identification and management of approved and unapproved waste streams at the ERSI Landfill.

   Waste Acceptance Procedure

   The Waste Acceptance Procedure utilized by the ERSI Construction/Demolition Landfill is as follows:

   1) As a load of C/D waste arrives at the landfill, the hauler will proceed directly to the scales. At the scales, the weigh person will verify the waste is approved for disposal by determining the origin of the waste material and by referencing the Acceptable and Unacceptable Wastes List (See Attachment 1-2). The Acceptable and Unacceptable Wastes List shall be updated as necessary. In the event the waste is not approved for disposal, it shall be refused and removed by the hauler.

      If the waste is acceptable for disposal at the ERSI site, the weigh person shall provide the hauler with a Waste Description Sheet (WDS), (See Attachment 14-2). The hauler shall then complete the WDS (including signature) describing the wastes' physical appearance, noticeable odor(s), and its consistency.

      The hauler will then proceed to the active working face (See Attachment 14-3 for the Waste Flow Diagram).

2) Every load arriving at the active working face shall be inspected as follows:

   a. Upon arrival, the hauler will provide the WDS to the site operator;

   b. The site operator will visually inspect the load prior to unloading;

   c. As the load is being unloaded, the site operator will visually inspect the load. If the load is approved for disposal, the site operator will sign the WDS, noting the load was accepted.

      Should the load contain non-approved or questionable waste streams, it shall be segregated and placed in a designated area adjacent to the active working face and the operations manager shall be immediately notified.

   d. The operations manager will visually inspect the segregated load and complete a Waste Discrepancy Report (WDR) (See Attachment 14-4). It will be the operations manager's decision on the action to be taken. If it is determined the segregated waste is unacceptable, it will be noted on the WDR. All actions and a description of the waste shall be noted on the WDR. The operations manager will make the decision whether to reject the waste (hauler to remove). Should the waste be rejected, the operations manager will notify the PADEP and or other appropriate agencies. Under no circumstances shall suspicious or unapproved waste(s) be disposed at the ERSI site.

The above Waste Acceptance Procedures will effectively screen all incoming waste loads arriving at the ERSI facility. Visual inspection is the accepted screening process, since the approved waste streams are provided on the Acceptable and Unacceptable Wastes List (See Attachment 1-2) posted at the scalehouse and in the possession of the site operator. An Operational record shall be produced daily (See Attachment 14-5). The visual inspection will identify any non-approved waste(s) that may arrive at the site.

The procedures outlined for the Waste Acceptance Procedures for construction/demolition wastes including the Waste Description Sheet, Acceptable and Unacceptable Wastes List, and the Waste Discrepancy Report, may be modified in the future by ERSI as operational experience dictates. Minor modifications having no impact on the material content of this plan, may be instituted without formal notification to the PADEP. Material changes, such as acceptable and unacceptable waste streams, shall be submitted to the PADEP for approval.

3) See response to 3, above.

Section I.

The proposed operating hours for the landfill will be 7:00 A.M. to 4:30 P.M., Monday through Saturday. The operating hours may extend beyond the posted hours (7:00 A.M. to 4:30 P.M., Monday through Saturday) as needed to accommodate special circumstances, including, but not limited to, holidays, traffic delays and severe weather. Prior notification will be provided to DEP if operating hours are to extend beyond 7:00 A.M. through 4:30 P.M. Monday through Saturday. Construction activities will occur between 7:00 A.M. and 7:00 P.M. Monday through Saturday in accordance with Taylor Borough Ordinances.

Section J.

1. Regional approach routes to the site include: Union Street (SR 3010), Keyser Avenue (SR 3011) and Northeast Extension of the Pennsylvania Turnpike. The site entrance is on Union Street, approximately 1,500 feet from the Union Street's intersection with Keyser Avenue.

   Because Union Street is posted for a 20-ton weight restriction where it originates in the Borough of Taylor, truck traffic to the site from this direction is not allowed. Accordingly, truck traffic will approach the site from Keyser Avenue onto Union Street. Smaller vehicles, such as cars and light-duty pick-ups, may use Union Street from either direction.

   From Union Street, refuse trucks and other vehicles will enter the site on a short, paved access road, then proceed to the scales or office, both within 300 feet of the entrance. Refuse trucks will travel from the scales to the working face on an unpaved road stabilized with crushed rock found on site. Maintenance traffic between the garage and office will also use this road. Daily traffic volumes at the site will be approximately 66 refuse trucks (approximately 20 tons payload per vehicle) and about 20 maintenance and small load (pick-ups) vehicles.

2. Access roads are sloped to drain into stormwater diversion channels. The existing permanent entrance off Union Street and the adjacent parking areas sheet flow to existing roadside drainage conveyance.

3. The on-site access roads will be 22 feet (minimum) wide to accommodate two-way traffic. The road surface will be finished with a 2% crown to drain stormwater. Road grades will not exceed 12%. The gravel access road employs roadside ditches and culverts to convey stormwater to stable outlets. See drawings for access road location, elevation and construction details.

Section K.

ACCESS CONTROL PLAN

Access control for the facility is provided by way of gates across the access road and fencing. To further prevent access, a fence has been constructed to surround the property and all major facilities. A wooden landscape fence lines the front of the site and a 6-foot chained link fence is located on the Powell Street side of the site. Taylor Borough has access to a wastewater conveyance line that crosses beneath the site.

The site sign is located on the north side of the site access road along Union Street. A description of the sign is provided in response to Section F of this Form 14.

Section L.

NUISANCE MINIMIZATION AND CONTROL PLAN

1. INTRODUCTION

1.a. *Overview*

Environmental & Recycling Services, Inc. (ERSI) will utilize the procedures described in this Nuisance Minimization and Control Plan (Plan) to assist in achieving or exceeding compliance with the specific performance standards related to nuisances that were identified in the Application Process per approvals issued by the Pennsylvania Department of Environmental Protection (PA DEP). This Plan is intended to summarize and expand on the procedures in the Form14 – Plan of Operation, and elsewhere in the Application.

Solid waste management facilities, including ERSI, may create nuisances that must be actively managed. As described in this Plan, engineering and operational systems at the facility such as landfill gas management systems, litter fences, and active area controls, have been developed and will be employed to prevent and control nuisances. Nuisance monitoring, assessment, and recovery activities are important. ERSI will continue to evaluate and improve nuisance control methods to help minimize the potential for off-site nuisances.

This Plan will be periodically revised and/or changed as nuisance control activities are refined and new techniques are developed or as changes are necessary to maintain compliance with applicable rules and regulations. The current version of this Plan, along with applicable associated reports, inspection documents and meteorological data will be maintained on-site for reference by site personnel and for review, as necessary, by regulatory personnel.

1.b. *Plan Contents*

The Plan addresses ERSI's Nuisance Minimization Control Program, which is a key element of how ERSI monitors for and responds to any potential nuisance conditions.

2. NUISANCE MINIMIZATION CONTROL

2.a. *Nuisance Monitoring Surveys*

Routine observations will be made by ERSI management and operational personnel during regular operation hours and routine security site rounds. Monitoring and frequency are determined by such factors as season, temperature, meteorological conditions (such as wind speed, direction), and site operational activities.

2.b. *Community Calls*

Local residents can provide feedback directly to ERSI, including the communication of nuisance conditions suspected to have originated from the landfill by calling the landfill. Complaints and/or concerns can be registered with the landfill and will be relayed to the appropriate staff at ERSI so that they can respond in a timely manner.

All phone calls will be logged by the landfill, along with follow-up actions taken to evaluate and address nuisance-related concerns.

2.c. *Communications and Notifications*

PA DEP will be notified by ERSI management when there are unique circumstances or activities at the landfill that could increase the chance for potential nuisance conditions to develop, such as major storm events, unique construction projects, testing/shake-down activities, and equipment malfunctions. This procedure will help ensure that all pertinent information is gathered and communicated so that ERSI personnel and PA DEP can provide informed explanations while addressing community concerns and complaints.

Emergency conditions will be reported to the appropriate agencies in accordance with ERSI's Preparedness, Prevention and Contingency Plan (PPCP) as necessary.

2.d. *Weather Monitoring*

ERSI utilizes a local on-line weather station which provides and records real-time weather conditions. ERSI personnel will refer to the weather station data to analyze present conditions and allow ERSI Management to implement quick and efficient changes to site operations or activities.

3. VECTORS

3.a. *Vector Control Measures*

The primary control to prevent the attraction, harborage and breeding of rodents and birds is the proper placement of weekly, intermediate and final cover. The attraction of rodents and birds to the site should not be a significant nuisance concern at ERSI since only C&D wastes will be disposed of at the site.

ERSI will contact a licensed animal control and removal service to evaluate the site for additional animal control activity, if necessary. The licensed animal removal service performs

any necessary control or removal measures and completes a written report(s) that includes the observations and corrective action(s) taken to control and/or remove the vectors.

4. ODORS

4.a. *Odor Control Measures*

ERSI will provide cover for waste on lifts every 50 feet horizontally or at the end of each working week, whichever comes first, in compliance with intermediate cover and slopes requirements of 277.232 as well as final cover and grading in compliance with the requirements of 277.233.

ERSI will conduct daily inspections of the working face of the landfill for general compliance as well as for odors. If odors are detected, cover will be applied to the waste as soon as soon as possible to help control odors.

4.b. NSPS Type Monitoring

ERSI will also implement quarterly "NSPS" type surface emissions monitoring to determine if there are any elevated methane (landfill gas) readings (trigger). Any "trigger" will be immediately addressed with the placement of additional soil cover, well vacuum adjustment and/or the rapid installation of either vertical or horizontal gas collection wells as may be needed.

4.b.i Gas Monitoring

ERSI currently monitors (takes readings) the gas system on a monthly basis. ERSI will also monitor for hydrogen sulfide gases (H_2S) with an Envision HCH, Jerome Meter or equal.

4.c. Gas Collection System

The active gas collection system currently in place for the existing landfill will be expanded and enhanced to include the Phase IV construction, as needed. The gas collection system will include both vertical and horizontal gas collection wells. Collected gas is burned in the enclosed flare. Both of these destruction devices will be maintained in operating order to assure that they function properly.

4.d. *Landfill Gas Collection*

In the unlikely event of odors from landfill gas, they will be primarily controlled through a network of gas extraction devices that are maintained under vacuum. The number of gas wells and the collection-piping network will continue to expand, if necessary, as waste disposal continues to assure proper removal of landfill gas and control potential odors.

The collection system has and/or can use three (3) methods of gas extraction that include vertical gas wells, horizontal gas loops and shallow/surface collectors.

4.d.i. *Vertical Gas Wells*

Vertical wells are generally installed by drilling a 36-inch diameter hole within the waste. A section of perforated HDPE or PVC Sch. 80 pipe is then placed in the hole and backfilled with clean coarse stone. A seal consisting of two (2) bentonite layers and a clay soil layer will be placed on top of the stone to seal the well from the surface of the landfill.

Vertical wells are installed after an area of the landfill reaches final grade. Vertical well spacing in final cover areas is based on ERSI's Gas Collection and Control System (GCCS) Design Plan.

Vertical wells may also be installed prior to attaining final grades to control odors in active areas of the landfill, if needed.

4. d. ii. *Horizontal Gas Collectors*

These wells can be installed to collect and control gas while a fill area is active (i.e. before it reaches final grade and vertical wells are installed). The collectors are typically constructed by excavating trenches within the waste, installing perforated HDPE pipe sections and backfilling the trenches with aggregate. Although these wells are intended as an interim collection measure, they can remain in service as long as they are operable.

4.d.iii. *Shallow/Surface Collectors*

These collection devices can be installed as an interim measure to control gas odors in select areas under intermediate cover conditions at the facility. These collectors are typically constructed by excavating horizontal trenches within the intermediate cover soil, installing perforated HDPE pipe sections (usually 4 inch diameter) and backfilling the trenches with clean coarse stone. These collectors can be installed in localized areas identified for corrective action during the performance of 4c – daily working face checks, or 4b - New Source Performance Standards (NSPS) surface emission surveys. Although these wells are intended as an interim collection measure, they can remain in service as long as they are operable.

4.e. *Landfill Gas Management Data Acquisition System*

An auto-dialer (AD) is installed for the ERSI flare system. The AD system is programmed to alert key personnel with prompt notification when preset alarm values are triggered, minimizing gas system downtime and possible compliance deviations of site specific operating parameters. The AD system uses an internal modem to dial and alert the gas management technician and other operational personnel with a message containing a brief description of the alarm.

4.f. *Landfill Gas Response Activities*

In the event the personnel detect landfill gas odors that require follow-up, the following examples of typical corrective actions can be evaluated and implemented as appropriate:

- Apply additional cover
- Check well vacuum
- Install additional wells (vertical and/or horizontal)
- If LFG controls currently in place potentially, following implementation of the quick remediation steps, require augmentation, the Site Engineer may design additional controls to be constructed.

4.g. *Construction Events*

It is necessary at times to perform construction in intermediate cover areas. This construction can disturb the waste mass and creates an increased potential for malodors. Special care and attention should be taken to ensure that malodors are minimized and controlled. To control malodors during these construction activities (such as drilling, excavation and the relocation of old waste from these activities), ERSI will, if needed, implement the following controls that can be used by both in-house and subcontractor personnel:

- Using a water truck or even a hand sprayer, odor neutralizer can be applied during open waste excavation, drilling, or any other type of waste mass disturbance. These activities can be halted if a water truck is not present and operational.
- Portable mister units can be placed near the construction area.

4.h. *Active Area Controls*

- The active area will be carefully limited to a size that minimizes the potential for off-site odors and allows for proper control or containment of wind-blown litter, while providing sufficient space for safe and efficient waste vehicle unloading operations.

5. NOISE

5.a. *Noise Control Measures*

Noise generation at the landfill is basically due to truck traffic, heavy equipment necessary for daily operations at the landfill, and noise from disposal activities at the working face. The following methods will be implemented by ERSI to minimize the noise from each of these activities.

5.b. *Truck Traffic*

Onsite access roads will be constructed so as to be away from Powell Street (west of Phases I-III). The allowable delivery times for soil delivery limits the hours trucks can deliver soil to the landfill. Soil delivery will be limited to the operating hours of 7 a.m. to7 p.m.

Waste truck drivers will be discouraged from arriving prior to 6 a.m. Drivers arriving before 6 a.m. will be issued a written violation and required to wait at least 3 hours before being permitted to dump. Habitual offenders will be banned from using the site. Early arriving trucks will queue at an area near the gate and away from local residences. Drivers will be required to turn off their engines to avoid noise. Signs will be posted onsite advising drivers not to leave their engines in the idle mode. (See also – Traffic Compliance Plans, page 14-24)

5.c. *Heavy Equipment*

All construction and operation vehicles that have back-up alarms back into the maintenance garage during the end of the operational day so that when work begins the following operational day, the vehicles will exit the maintenance garage forward. Operating hours have been adjusted to cease accepting waste by 4:30 p.m. to allow operational vehicles to return to the maintenance garage by 7 p.m. Additionally, routine maintenance of vehicles will be conducted in the garage at the northwest area of the site rather than along Union Street.

5.d. *Disposal Operations – Working Face Noise*

The construction sequencing of Phase IV will shift the working face away (northwest) from Union and Powell Streets and closer to the PA Turnpike than was the Phase I-III operation.

Berms will be provided when the fill operations reach an elevation where they become visible and audible from Powell Street. The berms will be constructed of C&D material which will be initially placed on the outside edge of the area being filled. The outside slope will immediately be covered with soil and vegetated as quickly as conditions allow. This "berm treatment" will continue to be implemented as the landfill lifts are placed. These berms will help dampen and muffle site operational noises.

6. DUST CONTROL

Dust can be a problem at the landfill due to various onsite activities such as the soil stockpiles, earthmoving, movement of equipment and trucks onsite, and disposal activities.

6.a. *Soil Stockpiles*

Soil stockpile dust control will include the use of water on the stockpile, limiting routine stockpile operation to the east side of the pile, vegetating the west side along the property line and leaving that face undisturbed as much as possible. Soil stockpiles will be stabilized and vegetated if the stockpile will be inactive for 30 days or more.

6.b. *Earthmoving/Construction/Disposal*

Watering will be used during construction activities and during earthmoving to keep dust to a minimum. Waste loads at the working face can be watered to minimize dust from dumping and disposal operations.

6.c. *Movement of Equipment and Trucks Onsite*

Water trucks are available to provide dust control on roadways throughout the site as well as for the various activities described in 6a and 6b. Unpaved roadways will be constructed of stone or other appropriate specifications as necessary. Speed restrictions will be enforced within the site.

Trucks transporting soil to the site as well as onsite will be tarped to prevent dust emissions. The automatic tire wash facility will prevent dust and mud from being tracked out onto the public roadway.

6.d. *General*

ERSI will close the site in severe wind events when dust suppression by the water trucks does not work or when, due to equipment malfunction, water trucks are not able to control dust.

There will be no routine traffic along the east side of the Phase I-III areas (no traffic near Powell Street).

7. LITTER

Litter can occur at the landfill from trash blowing from the working face or falling from vehicles transporting waste to the landfill.

7. a. *Litter from the Working Face*

Litter can be controlled by the thorough application of cover soil as required by the regulations or more frequently should conditions such as wind or a specific waste load warrant it.

7. b. *Litter from Waste Haulers/Vehicles*

Vehicles transporting waste are required to provide a cover over the waste. Covers/tarps can only be removed at the working face and vehicles must recover/tarp their empty cargo areas prior to leaving the working face.

ERSI policy states that if a vehicle enters the site without a cover/tarp over the waste, the driver is issued a written notice and the vehicle must wait a minimum of 3 hours before dumping. If a driver receives three notices, the driver is prohibited from using the site.

7.c. *Litter Fencing*

A litter fence approximately 150 feet in length and 50 feet high, roughly parallel to Powell Street will be installed along the Phase I-III landfill. Portable fencing will also be utilized in the vicinity of the working face.

7.d. *Other Activities*

ERSI will conduct twice each workday inspections of Union and Powell Streets and provide continuous monitoring of the site access roads for litter and debris.

As stated previously, the landfill will cease operations during periods of high wind which would cause litter and dust problems.

8. VEHICLE EMISSIONS

Vehicle emission sources include compaction and cover earthmoving equipment, site water trucks, vehicles bringing waste to the site, and vehicles bringing soil to the site.

In order to limit the effect of vehicle emissions on the landfill's closest neighbors, internal access roads will be located distant from Powell Street (west of Phases I-III).

Signs will be posted onsite limiting speed limit and requiring that vehicle's engines be turned off when practical to reduce emissions from idling.

Routine garage/maintenance operations will be conducted in the garage area at the northwest internal area of the site.

Section M.

LITTER CONTROL PLAN

Generally, blowing litter will be less of a problem than at municipal waste sites. Two strategies will be used at the site to minimize the impact of blowing litter on surrounding areas. First, the site will be developed in small fields, thus limiting the disturbed area from which blowing litter could be a problem. Second, litter fencing will be placed downwind of the working face. The site operator will use his/her judgment for placement of this litter fence.

Blown litter will be collected from fences, tree lines, etc. on a daily basis. Collected litter will be buried in the daily working face.

Section N.

SALVAGING / RECYCLING PLAN

As part of the operations of the landfill, ERSI plans to salvage and recycle various types of materials which may be brought to the landfill. Materials that will be recycled, if recycling is cost effective, include ferrous and non-ferrous metals, commercial/construction grade plastics/vinyl, wood, wood pallets, stumps, etc.

Salvaging and recycling will occur according to several different procedures.

Mixed Loads – Loads of waste will cross the scale and be weighed and recorded as weight of waste received. Landfill staff will evaluate the load and determine if there is sufficient material for recycling. If so, the driver will be directed to dump the load at the working face in a manner

which would allow ease of salvaging/recycling. Material suitable to be recycled will be removed from the load and stored in a roll-off container away from the working face so as not to interfere with landfill operations. The various types of materials to be recycled can be stored in separate containers for ease of handling and removal.

Depending on the volume of recyclable materials stored near the working face, material will be removed on a weekly basis or as needed to prevent interference with landfill operations. Recyclable material will be transported across the landfill scales for weighing. The tonnage of the recyclable materials will be clearly recorded as material removed from the site as recyclable materials and subtracted from that day's weight of waste received. Records will be clearly maintained to allow tracking of the weight of waste disposed and the weight of recyclables removed.

Materials removed from the recyclables storage areas near the working face will either be moved to the storage buildings onsite, or depending on the volume and current market price, may be removed directly to a recycling center.

Mixed Loads Containing Pallets/Wood/Stumps – Loads of waste will cross the scale and be recorded as weight of waste received. Landfill staff will evaluate the load to determine if wood and pallets are suitable for recycling. If so, the driver will be directed to dump the load at the working face in a manner which will facilitate salvaging and recycling. Scrap wood, stumps, and pallets that are suitable for salvaging will be separated from the waste and temporarily stored away from the working face to prevent interference with landfill operations.

The salvaged wood, stumps, and pallets will be taken back across the scale for weighing. The tonnage of the wood will be clearly recorded as recyclable wood material and subtracted from the day's weight of waste received. Records will be clearly maintained to allow tracking of the weight of wood recycled and the weight of waste disposed.
The salvaged wood, stumps, and pallets that are not suitable for reuse will be taken to the onsite wood chipper/grinder. Nails, metals, etc. will be separated as part of the chipping/grinding operation. The wood chips produced will be stored onsite near the chipper/grinder until sold or used onsite. No further treatment of the wood chips will occur.

Pallets which are intact may be chipped or will be stored whole in or near the storage buildings until sold for reuse.

Commercial/Construction Grade Plastics – These will be salvaged and recycled as described for other materials. Generally, a larger amount (full truck load) may be necessary to accumulate to make recycling profitable. If necessary, this type of material will be stored in the onsite storage buildings until a sufficient amount is accumulated for recycling.

Full Load of Pallets/Scrap Wood – A full load of pallets and wood that are to be completely recycled will still cross over the scale in order to record the weight of wood pallets/scrap recycled. The weight of the load will not be recorded as waste received for disposal. The scrap wood and pallets will be taken directly to the grinder/chipper and unloaded. Whole pallets which are not going to be chipped will be stored in or at the onsite storage buildings.

C&D Processing – Section N Supplement from Approved Minor Modification

1. Incoming material from transfer stations or work sites will be transported to the ERSI facility. The incoming C&D, following weigh-in at the scale area, will be unloaded in area (a), where it will be hand sorted to remove clean wood and ferrous materials, as well as non-recyclables, before being "fed" to the chippers/grinders by loaders or excavators for processing. The attached C&D Material Flow Chart shows this operation. ERSI may contract with a 3rd party to operate the C&D processing operation. It will be the responsibility of the operator of the processing equipment to secure any needed air or other permits.

    a. Criteria requirements for incoming wastes to be accepted – Only loads of C&D waste containing primarily wood products will be accepted. ERSI will also accept certain recyclable plastic materials.

    b. Procedures to ensure criteria are met prior to acceptance – ERSI personnel at the scale and at the unloading area will observe and visually confirm that each load being accepted consists of the type of material that is included in the initial salvaging program (wood waste).

    c. Procedures for wastes that do not meet the criteria – Any loads that do not meet the criteria will be rejected (not accepted) at the scale. If a load that appears to be acceptable at the scale but is determined, at the unloading area, to be unacceptable will be reloaded and removed from the site. The weight of any rejected load(s) will not be included in the daily tonnage.

    d. Storage of waste (pre and post-processing) – Material to be processed will be unloaded in area "a"; and the various processed material piles will be in areas "b–e" (see attached sketch), all within the approved "soil stockpile" area as shown on attached sheet ES-5A.

2. Inventory of Materials – The following materials will be received and processed:

    a. Incoming C&D loads consisting primarily of wood products
    b. Clean wood
    c. Ferrous materials
    d. Fuel product
    e. Certain recyclable plastics
    f. Non-recyclables, if any, that will be placed in a dumpster and removed for disposal at a landfill

3. Length of Time from Acceptance to Sale – It is intended that the primary product (fuel) will be removed from the site on a daily basis. Other products (Clean wood, ferrous materials, etc.) will be removed when a full load of the material is accumulated.

4. Description of the Storage Area – the storage area for the incoming material will be the area south and west of the Storage/Recyclables building as shown on the attached plans, which has previously been used as storage, wood chipping operations, and parking area.

5. Storage Areas – Storm Water – Incoming material will be 'stored' on the ground, out of doors, as described above and shown on the plans. Processed fuel product and/or a processed mulch will also be stored on the ground as shown. Other salvaged recyclable products (non-recyclables, ferrous materials) will be stored in containers or trailers. Clean wood will be stored in the Storage/Recyclables building. Any materials stored outside will be covered with a tarp or similar material as needed during rainfall events to prevent storm water from contacting the material.

6. Storm water run-on control – The processing area is located on a topographically elevated landform, therefore storm water is naturally diverted around the storage area, preventing intermingling with the incoming material. There is also a run-on diversion ditch around the area. The storage area is included within the permitted landfill area, and is currently approved for stockpiling without the construction of any additional stormwater controls.

7. Dimensions of each storage area – The approximate dimensions of the storage areas are as follows:

    a. "a" – Incoming C&D – 150' x 150'
    b. "b" – Non-recyclables – 15' x 15' + roll-off box
    c. "c" – Clean wood – 15' x 15' + roll-off box
    d. "d" – Ferrous materials – 15' x 15' + roll-off box
    e. "e" – Fuel product – 100' x 100' + roll-off boxes or trailers.

8. Description of Market for materials:

    a. Clean wood – Clean wood will be sold to builders or individuals for general construction activities.

    b. Ferrous materials – Ferrous materials will be sold to local scrap metal recyclers.

    c. Fuel product – Fuel product will be sold to co-generation facilities, or other users of processed wood as fuel.
    d. Wood chips – Wood chips may be sold for use as mulch or bedding.

9. Current Markets

    a. There are many local individuals and builders in need of clean wood.

    b. Local scrap metal recyclers always accept ferrous materials.

    The processed fuel product will be marketed to and delivered to approved facilities.

10. Material management if market(s) are not available - If there are not markets for the processed materials:

    a. Incoming waste stream will be halted until markets are secured.

    b. Processed material(s) that are not being marketed will be maintained under cover (see 6 above) until markets are secured. If markets are not secured, the processed material (s) will be removed and disposed at the ERSI landfill.

Section O.

AIR QUALITY CONTROL

The presently permitted Plan for Air Quality Control is provided below:

Daily Assessment of Site Conditions

Prior to commencement of filling operations each day, the site manager shall assess ground and weather conditions at the site to determine the presence or absence of conditions which would have an impact on dust or mud problems. If conditions warrant the declaration of a dust or mud emergency, the site manager shall institute the procedures provided for in the EMERGENCY ROUTINE portion of this Plan. If conditions at the site are such as would not warrant the declaration of an emergency, the site manager shall commence filling as per the below "Daily Dust and Mud Control Routine."

Daily Dust and Mud Control Routine

A. Presence and availability of required equipment and manpower:

1. The site manager shall not commence filling operations unless and until all required equipment and manpower are present and immediately available to perform the tasks provided for in this Plan.

2. At all times during filling operations, the following equipment shall be available in an operable condition, with a complement of a sufficient number of employees to maintain Union Street, and all interior roadways, in a manner so as to avoid the accumulation and release of dust and mud on the access road, or off the premises.

   a. One (1) road sweeper;
   b. One (1) bulldozer;
   c. One (1) water spray truck (1500 gal. Capacity gal. plm pump)

3. All interior roadways shall be watered on a regular daily basis, as required, according to prevailing conditions.

4. All interior roadways shall be scraped, graded, and maintained on a regular basis as required according to prevailing conditions, including placement of suitable rock materials on such roadways as required. Suitable rock materials shall consist of rock materials of such density as to withstand daily travel of construction and over-the-road vehicles of both the landfill and its customers without pulverizing and disintegrating into dust fines.

5. Management shall provide sufficient implements, equipment, and resources to haulers using the landfill to enable the drivers of such vehicles to remove all mud form their vehicles prior to exiting the landfill.

6. Permanent signs shall be prominently posted, at the entrance lanes and exit lanes of the site, advising haulers of the requirement that (1) all vehicles must be cleaned of mud prior to exiting from the landfill, and (2) violations of this requirement will cause violators to be prohibited further access to the landfill.

   a. All customers of the landfill shall be advised in writing that repeated violations of this requirement will result in a permanent prohibition to further disposal at the site, and that strict enforcement of this policy will be the rule, not the exception.

7. At the close of landfilling operations each day, the roadway maintenance crew shall clear Union Street of all accumulations of dust, mud, or debris due to landfilling operations.

Emergency Dust and Mud Control Routine

A. Prior to commencement of filling operations each day the site manager shall assess conditions at the site to determine the presence or absence of dust or mud emergency. If conditions warrant the declaration of an emergency, the site manager shall institute procedures under Section 14.14.2, "Emergency Dust and Mud Control Routine."

B. If precipitation has fallen which is of such magnitude that additional equipment and manpower will be required to prevent accumulations of mud on Union Street, the site manager shall not commence landfilling operations until such time as the required equipment and manpower are present and available.

C. If sufficient precipitation has fallen as will likely exceed the capability of the equipment and workmen to control excessive accumulations of mud on Union Street, the site manager shall not permit any landfilling operations to commence until such time as landfilling may commence and continue without causing accumulations of mud on Union Street or off the premises.

D. At any time during the hours of operations of the site, the site manager shall cease all, or a portion, landfilling operations should any condition arise which would create dust or mud accumulations on Union Street.

E. The site manager shall have full authority to determine the presence of emergency conditions and the duration of any emergencies so declared.

F. The site manager shall have full authority to impose restrictions, whether full or partial, upon customers who violate any procedure established by the site manager as part of this Plan.

Dust and Mud Control Logs

A log containing the following information must be kept:

1. Time and location of treated areas;

2. Daily meter reading of pump, odometer reading of trucks used to apply dust suppressants, and identification of suppressants;

3. The daily dilution ratio of suppressants and dilutants, if chemical suppressants are used; and

4. Purchase records of suppressants.

Quarterly reports of all logged records must be available to be submitted to the PaDEP.

Section P.

WASTE PLACEMENT

In order to provide additional protection to the underlying liner system, the initial lift of waste placed within all areas of the landfill (base areas and side slopes) will consist of a "fluff" lift of select waste.

The fluff lift will consist of an 8-foot think layer of select waste that contains items that minimize the potential to penetrate the protective cover, generally limited to 12 inches in their longest dimension. Compaction of the fluff lift shall be limited to that just sufficient to hold the waste in a stable mass. Over compaction of the initial lift to improve density will be avoided, so as to avoid damage to the underlying liner system.

To this end, site personnel will monitor placement of the select lift of waste. The objective of this monitoring will be to remove any objects which by their nature or dimensions could conceivably penetrate the protective cover. Each truck will unload its waste in the presence of the on-site monitor(s). The monitor(s) will inspect each load for the presence of all objectionable materials. If needed, the load shall be spread out until it is of a size sufficient to all inspection of all material.

Attaining the maximum density of waste through proper compaction and field construction results in the most efficient use of landfill capacity. All C/D waste received at the ERSI Landfill is either loose or partially compacted. As part of the area fill method of landfilling, all wastes will be spread and compacted in two-foot thick layers. At the end of each working week, a one (1) foot layer of intermediate cover will be placed. This compacted waste and soil cover constitute a cell. A series of adjoining cells, all of similar height, compose a lift. The cell dimensions are determined by the daily volume of the compacted refuse received. The cell density of most compacted waste may vary significantly due to the type of waste. Overall, the density should be at least 1,000 pounds per cubic yard. The cell depth (height) of eight (8) feet aids in preventing settlement problems.

In general, the areas for the waste will be approximately rectangular, with sides sloped as steeply as practical to allow for proper operation. Side slopes will keep the surface area and cover material volume to a minimum and will aid in obtaining good compaction of solid waste; particularly if it is spread in layers not greater than 2 feet thick and worked form the bottom to the top of the slope. A minimum of 3 to 5 passes with the compaction equipment is made to achieve good compaction. Good compaction reduces rainwater infiltration, minimizes settlement, and increases landfill life.

Designation of Unloading Area

An attendant and/or clearly marked signs will direct vehicles to the unloading area. The site operator will ensure that all waste is unloaded promptly at the working face.

Section Q.

DAILY COVER

Daily cover is not required for a Construction/Demolition Landfill facility. However, daily cover will be used as necessary to prevent blowing litter, odors, vectors or other nuisances. Additionally, daily cover maybe used to control infiltration of stormwater associated with precipitation events.

Section R.

INTERMEDIATE COVER

Intermediate cover shall be obtained from off-site sources and will be subject to the requirements of 277.232. Sufficient quantities will be onsite so that a minimum of two (2) week supply of cover material will be maintained at all times throughout the Phase IV expansion. The one (1) foot intermediate cover will be applied to every eight (8) foot lift of waste or at the end of the work week, whichever comes first.

All intermediate soil cover shall fall within the USDA Textural Classes of sandy loam, loam, sandy clay loam, silty clay loam, loamy sand and silt loam. At least 40% by weight of the fragments in the soil is capable of passing through a 2-millimeter (No. 10 mesh) sieve. The cover will not include rock fragments that are greater than six (6) inches in diameter.

Areas on which intermediate cover has been placed, and on which neither waste nor final cover is placed within 30 days thereafter, will be temporarily revegetated and protected against erosion and sedimentation. Intermediate slopes constructed on this facility will not exceed 50%.

Section S.

FINAL COVER

Upon completion of filling to permitted final contours, the approval final cover system will be placed over all disposal areas. The final cover system will be in place within one year after disposal in the final lift ceases, or as soon thereafter as weather permits. It is difficult at this time to predict the time periods of final cover application, as the site will receive final cover as sequential disposal areas are developed.

A conventional geomembrane cap system will be placed, as shown on the plans, consisting of geotextile, geomembrane and composite net. A uniform and compacted layer of soil (minimum two feet) shall be placed over the geosynthetic cap system. The top six (6) inches of the final cover material shall be capable of supporting the germination and propagation of vegetative cover as required by 277.234 and 277.235. The soil layer shall meet or exceed the design requirements set forth for intermediate cover (Section 277.233(b)).

Section T.

FINAL COVER CHARACTERIZATION

As previously stated, the final cover quality shall beet the textural classes and course fragment content required for intermediate cover.

The following are characteristics of the final cover:

- The material shall prevent vectors, odors, blowing litter, and other nuisances.
- The cover shall cover solid waste after it is placed without change in its properties and without regard to weather.
- Based on the final cover soil density, the final cover will be capable of allowing loaded vehicles to successfully maneuver over it after placement.
- The material shall compact well and not crack excessively when dry.

Section U.

FINAL CONFIGURATION

As the disposal operation proceeds through intermediate contours, final contours of the landfill are progressively attained and the final terraces and vegetation are established. The final grading plan on the project drawings depicts the final contours and elevations for the site. To attain maximum site life, stability, and to promote surface water runoff, slopes will range from 4% to an average of 28%. Wherever slopes exceed 15%, 15-foot wide terraces will be utilized for every 25 feet of vertical relief. The gradient of the terrace shall be 5% into the landfill, which will assist in controlling erosion by stabilizing the outer edges of the terrace.

The terraces will be designed with a minimum 2% slope to promote drainage. Surface water runoff will be directed toward rock-lined conveyance channels with ultimate destination to sedimentation basins. The compacted terraces will be seeded and vegetated per the erosion and sedimentation control plan. The proposed revegetation plan will ensure minimal percolation of precipitation.

ERSI CONSTRUCTION/DEMOLITION LANDFILL

TRAFFIC COMPLIANCE PLAN

Traffic nuisances are minimized through a comprehensive program that combines control activities with monitoring and follow-up activities.

ERSI is committed to transportation safety and proactively enforces the policies and procedures as outlined herein.

The Key initiatives employed through this plan are as follows:

- All long-haul vehicles are required to utilize PA State Turnpike to access and exit the facility. All long-haul drivers without an official and current Turnpike receipt are rejected from the facility, unless alternate arrangements are established to verify Turnpike use.

- All local trucks will similarly be required to use the PA State Turnpike to access and exit the facility unless the source of their material is from point(s) between the Clark Summit or Wilkes-Barre Turnpike entrances and the Keyser Avenue exit.

- Each driver will be required to stop after the tare weight is recorded and prior to exiting to conduct a walk around self-inspection of his or her vehicle such that any loose litter and debris may be removed and any rocks removed from between dual wheels before exiting the facility.

- Overweight trucks will be logged and notifications will be made to the applicable trucking company. As a general rule, overweight trucks will not be rejected, in order to avoid such vehicles re-entering the public roadways.

- Trucks will not be permitted to sit in queue with their engines idling.

- All violations will promptly be distributed to the transporter and customer and disciplinary actions taken for violations may include an initial written warning, a temporary suspension of disposal privileges, and indefinite or permanent suspension.

- All soil delivery trucks must access the facility via the Turnpike (or via Keyser Avenue if the soil source is accessed by Keyser Avenue).

- The allowable delivery times for soil delivery per the Soil Purchas Specifications limits the hours trucks can deliver soil to the landfill. Soil delivery will be limited to the operating hours of 7 A.M. to 7 P.M.

- Waste truck drivers will be discouraged from arriving prior to 6 A.M. Drivers arriving before 6 A.M. will be issued a written violation and required to wait at least 3 hours before being permitted to dump. Habitual offenders will be banned from using the site. Early arriving trucks will queue at an area near the gate and away from local residences. Drivers will be required to turn off their engines to avoid noise. Signs will be posted onsite advising drivers not to leave their engines in the idle mode.

Attachment 2

ENVIRONMENTAL & RECYCLING SERVICES, INC.
CONSTRUCTION/DEMOLITION LANDFILL
ACCEPTABLE AND UNACCEPTABLE WASTES LIST

Acceptable
Asphalt
Asphalt Board
Brick
Ceramic Material
Cinder Blocks
Concrete
Electrical Fixtures and Wiring
Forming and Framing Lumber
Framing and Siding Materials
Ferrous and Non-Ferrous Materials
Glass
Gypsum Board
Household Remodeling
Fiberglass Insulation
Laminates
Metal/Tin Siding
Paper (Construction Type)
Particle Board
Piping/Radiators
Plaster
Plastics (Sheeting, etc.)
Plywood
Porcelain
Railroad Ties
Roofing Materials
Sheetrock
Slate
Stone
Tar
Tar Paper
Terra-Cotta Tile/Pipe
Wood

Unacceptable
Any Container Containing 1 Gallon or Greater of Free Liquid
Appliances
Any Medical Waste, Human and Animal Chemotherapeutic Wastes
Explosives
Hazardous Waste
Infectious Waste
Large Nickle-Cadmium (NI-CAD) Batteries
Lawn Clippings
Lead/Acid Batteries (car, boat, tractor, etc.)
Lead Based Paints
Leaves
Liquid Waste in any Form or Amount
Municipal Waste[2]
Pathological Wastes
Pharmaceutical Wastes
Putrescible Wastes
Radioactive Wastes
Residual Wastes[2]
Sewage Sludge (Except for Revegetation Purposes)
Tires
Waste Anti-Freeze
Waste Motor Oil
Vulcanized Materials

[1]Acceptable wastes assume no contamination with other waste types (i.e. municipal, residual, etc.). Wastes as a resultant of manufacturing industry which generates construction/demolition material is not considered acceptable since it would be classified as a residual waste (i.e. mobile home construction, cinder block mfg., etc.). Demolition of facilities other than asbestos will be allowed for disposal. The acceptable wastes outlined on this list assumes PADEP approval. Amendments to the acceptable waste types may only occur with prior approval from the PADEP;
[2]As defined by PADEP Municipal Waste Regulations.

Attachment 3

ERSI
PHASE IV

ATTACHMENT 28-1

CLOSURE PLAN

Introduction

The purpose of this closure plan is to provide steps to develop a low permeability cap over the Phase IV footprint at the ERSI Landfill. At a minimum, the cap system shall 1.) reduce rain infiltration into the waste mass, 2.) reduce leachate production, 3.) minimize and prevent erosion, and 4.) control runoff. The concepts within this closure plan include the design of an impermeable cap and closure activities which comply with state regulations.

This closure plan identifies and describes the activities that will be necessary to complete closure activities at the ERSI Landfill. The closure plan includes generalized discussions of the final cover and vegetative system, surface drainage run-on and runoff control, groundwater monitoring system and sampling program, landfill gas management system, leachate collection and management system, facility access control, and other measures necessary to accomplish site work to integrate the site into the surrounding area.

It is the intent of this document to describe an integrated plan for closing the Phase IV area. In support of this plan, drawings for the Phase IV landfill design show existing topography and fill grades as well as the typical landfill cap cross-section.

1.0 Schedule/Staging

The staging sequence is based upon reaching final elevations in areas of the Phase IV cell stages. The size of each closure area will be such that the closure stage can be completed within one construction season and to be able to control stormwater. The closure schedule for each stage is:

1) Construct Stage 2 – Complete Final Capping of Stage 1 that is at Final Grade (See Drawing Sheet LF-13).
2) Construct Stage 3 – Complete Final Capping of Stage 2 that is at Final Grade (See Drawing Sheet LF-13).
3) Construct Stage 4 – Complete Final Capping of Stage 3 that is at Final Grade (See Drawing Sheet LF-14).
4) Construct Stage 5 – Complete Final Capping of Stage 4 that is at Final Grade (See Drawing Sheet LF-15).
5) Complete Final Capping when filling is complete (LF-15).

Before any closure activities are scheduled to begin, drainage controls will first be constructed in a sequential manner starting at low elevations to control stormwater.

Premature Closure Procedure

The design and sequencing of the Phase IV disposal area has been conceptualized to allow for proper stormwater drainage to exist during the entire operating life of this disposal area. In the event that the landfill must close prior to reaching its total design height, placement of waste will cease and the existing grades will be adjusted to achieve good drainage and to reduce the potential for erosion. A revised closure plan will be prepared-at such time to address premature closure.

Final Closure

It is anticipated that one or more areas of the landfill will receive intermediate cover during each yearly construction season. The construction will include earthwork to accomplish final grading. Installation of the final cover system may proceed at approximately the same time as construction of landfill cells, if possible, to take advantage of economics of scale. The work includes seeding of the barren soil, and road removal and reconstruction on the final grade. Removal of structures and support equipment will also be performed during this time as their usefulness ends, unless the equipment or structures are needed to support post closure activities or subsequent landfill expansion.

Equipment that is removed from the site will be steam cleaned/power washed prior to leaving the site. The equipment will either be reused, salvaged or disposed of off-site at a facility(ies) permitted to accept the material(s).

The scalehouse will be removed from the site after closure of the landfill, if not being used for another purpose. The office and maintenance buildings will remain onsite at least through the post closure care period. Structures to be removed after the post closure period will be either relocated off-site or demolished and disposed of off-site at facility(ies) permitted to accept the material(s). Utilities will be disconnected and removed per utility supplier recommendations concurrent with the removal of the structures.

Final closure of the site is estimated for the year 2067, thirty-one (31) years after the last closure stage is implemented. This estimate is based on allowing one year to complete construction of the capping system and erosion and sediment controls and for final inspections by authorities, and allowing a thirty year post closure care period as required by federal regulations (40 CER 258).

2.0 Closure Components

For the purpose of this closure plan, closure activities will include construction of the final cover system (including vegetation), construction of structures to control surface run-on and runoff, installation of the final landfill gas (LFG) management system (as needed) and measures to be implemented to ensure site compatibility with surrounding areas.

The plan ensures that closure will be completed in a manner that minimizes the need for future maintenance. This plan includes the following closure activities:

- constructing final sideslopes with E&S control to reduce soil erosion;
- use of a multi-layered final cover system to reduce groundwater recharge via infiltration of rainfall and to reduce soil erosion due to surface runoff;
- selection of a shallow rooted vegetative cover to reduce erosion and provide evapotranspiration;
- construction of site access control systems;
- plan for periodical sampling and analyzing samples from groundwater monitoring wells and LFG monitoring wells as described in Form 7, Hydrogeologic Information; and
- providing a plan for performing periodic scheduled facility inspections to observe the performance of closure systems.

2.1 Final Cover System

Closure activities for the lined areas of the landfill will include construction of a final cover system. The closure activities include capping of areas in which municipal solid waste disposal activities have taken place.

Final Cover System Design

The cover system for the landfill phases will consist of the following from bottom to top:

- 16 oz/sy non-woven geotextile;
- 40 mil textured LDPE geomembrane liner;
- composite geonet
- 18 inches of common fill;
- 6 inches of topsoil to support vegetation; and,
- vegetative cover.

The total depth of the proposed cover system from the top of the initial layer of intermediate cover will be about 2 feet.

The cover system is designed to minimize the potential infiltration and/or percolation of rainfall and run-on/runoff and provide a layer of soil material that will support vegetative growth. The

system will also minimize erosion of the cover and minimize maintenance activities related to the final cover.

The final cover system has been designed with surface grading that will promote surface runoff, even given the probability that minor settlement will continue to occur as deposited municipal wastes consolidate and degrade. The final cover system is also designed to minimize possible adverse effects as a result of freeze/thaw cycles.

Vegetative growth is an important aspect of the final cover system for the facility because the vegetative cover increases soil stability and helps control erosion caused by surface runoff and wind.

2.2 Drainage Controls

Surface run-on and runoff controls to be implemented during closure will include controlling the final cover surface slopes to reduce erosion. Sideslopes of the lined fill areas are designed at a maximum of 3 horizontal to 1 vertical. These grades will be maintained to minimize fill material for grade adjustments required for drainage. These slopes, combined with drainage structures and erosion control benches, will minimize infiltration of rainfall/runoff and limit excessive erosion of the cover system.

Other surface drainage structures considered appropriate for installation include drainage ways and ditches to intercept runoff on sideslopes and to convey runoff away from completed sections of the landfill. These structures control surface runoff by directing it into perimeter drainage courses that channel runoff to the sedimentation basins. Sequencing the closure to begin at the lower elevations is crucial to the success of the final closure. The construction of the impermeable cover will generate runoff that must be diverted to control down slope erosion.

The cap system will employ a drainage layer (composite geonet) above the impermeable membrane to remove precipitation that has infiltrated the vegetative layer. Revegetation of the final cover system should result in improved drainage control. The vegetative root structure increases soil stability and reduces soil erosion resulting from runoff. In addition, the vegetative growth increases evapotranspiration, particularly in summer months, thus reducing infiltration of rainfall and the potential for leachate generation.

A summary discussion of overall stormwater management and control practices is presented with Form I of this Permit Application.

2.3 Groundwater Monitoring System

A detailed groundwater monitoring program for the landfill is described in Form 7 of this permit application. The annual and quarterly sampling program will continue throughout the closure period for chemical parameters to be approved by PaDEP. Samples will be taken from all PaDEP approved monitoring points and analyzed for the required parameters. Continual sampling is necessary to provide data on the integrity of the liners and leachate collection system. The sampling of monitoring wells will continue throughout the post closure care period.

2.4 Landfill Gas Control and Monitoring System

Landfill gas (LFG) control will be accomplished as needed to prevent migration, explosion and fire hazards at on or off-site structures, to prevent damage to the vegetative growth on and off-site, and to minimize the potential for odors being released off-site.

2.5 Leachate Collection and Treatment System

The entire liner and leachate collection system, including all appurtenances such as leachate sumps, pumps, force mains, and storage tanks, will be constructed prior to final site closure. After closure, access to manholes, and other leachate collection system components, will be restricted to allow only authorized personnel access to the leachate collection system.

The closure of the landfill will result in the construction of the final cover system over the entire area of landfilling. This cover system should substantially reduce leachate generation because it is designed to minimize infiltration of precipitation into the disposed refuse. As a result, the quantity of leachate requiring treatment after the landfill is closed will be greatly reduced below the generation rates anticipated during actual operations.

Construction documents will provide details and locations of pipe cleanouts. Cleanouts will be located at locations and distances adequate to maintain sufficient access to the leachate collection and conveyance piping.

2.6 Access Control

Closure of the landfill, if the Phase IV disposal area is the final phase, will result in the elimination of waste landfilling operations at the site. During the period of landfilling operations, site access control will be primarily achieved by the existing 8-foot chain link fence surrounding the site. Locking gates at access points will be used to minimize unauthorized entry onto the site. At closure, however, the requirement to control access will most likely be reduced. If additional areas are permitted for waste disposal, then the site will continue per the Operation and Maintenance Plan.

Future use of the site will require that access to leachate collection components (sumps, manholes and storage tank) and LFG wells be restricted to authorized personnel only. Options for access control include installation of fencing around leachate collection system components and locking cover mechanisms for leachate collection manholes and groundwater and gas monitoring wells.

2.7 Soil Erosion and Sedimentation Control

The control of soil erosion will be an on-going activity during the construction and operating life of the landfill. With the implementation of final closure, the emphasis will change to permanent soil and erosion control measures. Form I, Erosion and Sedimentation Control, contains a detailed plan for soil erosion and sediment control.

The staged schedule of closure has been developed to demonstrate a concern for erosion and sediment control. Post-Closure runoff will be controlled by construction of diversions and stabilization of slopes by vegetation. Therefore, land areas following installation of drainage diversions will generally be limited in size to an area that can be constructed in one season. This will allow the new grasses to become established prior to the next stage of construction up slope. This staged construction will continue up slope until the entire designated landfill acreage is capped and closed.

2.8 Financing

Costs of closure construction and post closure maintenance are summarized in the attached bond worksheets.

2.9 Post-Closure Contact

The contact during the post-closure period will be the site general manager at the time of closure.

Attachment 4

Date Prepared
May 2025 Nov 2025 Revised Mar 2026

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

I.D. Number
100932

BONDING WORKSHEET I
LEACHATE MANAGEMENT

Leachate Management System Narrative: Provide a detailed description of the leachate management system. You need to include all features of the system including but not limited to landfill sumps (with number and size of pumps and controllers), length of conveyance system, number and type of storage facilities, and treatment/disposal method. A schematic should be attached as back up.

1. Number of years of leachate management (30 years + closure period) _____ 31 years

2. Annual leachate volume generated _____ 2,895,666 avg. gallons

ANNUAL LEACHATE VOLUME GENERATED

YEAR	LEACHATE GENERATION RATE	
	Gallon per Day	**Gallon per Year**
0(1)	32,703	11,936,595
1(1)	32,703	11,936,595
2	16,351	5,968,298
3	8,175	2,984,149
4	6,000	2,190,000
5-30 (25 yrs)	6,000(3)	54,750,000(4)
	TOTAL	89,765,636(5)
	AVERAGE ANNUAL	2,895,666(6)

(1) Assume highest annual rate (Stage 2) – 1st 2 years
(2) Generation rate decreases by 50%/year until equilibrium year 4
(3) Equilibrium rate of 100 GPAD
(4) Sum of gal/year – years 5-30 = 25 years
(5) Sum of 31 years of leachate
(6) Average gallons per year

3. Annual cost to manage leachate volume (include pump and pipe maintenance, electricity and monitoring)[1] $ _____ 27,457

Discharge to POTW

4. Unit cost to discharge leachate to a POTW _____ $11.76/1,000 $/gal

On-site Treatment (including pretreatment)

5. Unit cost for treatment of leachate (include equipment maintenance, electricity, personnel, chemicals, sludge disposal, etc.) _____ 0 $/gal

6. Annual cost to maintain NPDES permit (include sampling, analysis, report preparation, and factor in five year renewal application preparation and fees) $ _____ 0

[1] *Does not include storage of leachate which is contained on Worksheet K*

Interim Trucking of Leachate

7.	Unit cost to transport and dispose of leachate	$0.057 $/gal
8.	NPDES Permit (cost to prepare application, fees and sampling/analysis)	$ 0
9.	Cost to construct on-site treatment or pretreatment system or connection to POTW	$ 150,000
10.	Unit cost for treatment of leachate (include equipment maintenance, electricity, personnel, chemicals, etc.)	0 $/gal
11.	Annual cost to maintain NPDES permit (include sampling, analysis, report preparation, and factor in five year renewal application preparation and fees)	$ 0

12. Cost Summary:

a. Cost to manage/convey leachate (line 1 x line 3) $ $ 851,167

If discharge to POTW

b. Discharge to POTW cost (line 1 x line 2 x line 4) $ 1,055,644

If have on-site treatment

c. Treatment cost (line 1 x line 2 x line 5) $ N/A

d. NPDES maintenance cost (line 1 x line 6) $ N/A

If you currently truck leachate

e. Cost of trucking leachate for three years (line 2 x "3" x line 7) $ 495,159

f. NPDES permit (line 8) $ 0

g. Cost to construct on-site treatment system or connection to POTW (line 9) $ 150,000

h. Treatment cost ([line 1 – "3"] x line 2 x line 10) $ N/A

i. NPDES maintenance cost ([line 1 – "3"] x line 11) $ N/A

If you currently store leachate in impoundments

j. Size of pond(s) 0 acres

k. Estimate volume of material to be removed (including liner system and minimum of 12" of soil) N/A CY

l. Unit cost to dispose of materials (Worksheet A, line 4) N/A $/CY

m. Cost to dispose of materials (line k x line l) $ 0

n. Volume of structural backfill 0 CY

o. Cost for backfill (line n x Worksheet B, line 8a) $ 0

p. Revegetation cost $ 0 LS

Subtotal $ **2,551,970**
(sum of a – i) +m+o+p)

Adjustment for maintenance, equipment replacement and contingencies, etc. Please note that these are cumulative and you must add all of the percentages that apply to arrive at the final adjustment percentage. The minimum adjustment is 10%.

a. Add 10% of subtotal if pumps are used to convey leachate.
b. Add 5 % of subtotal if flow volume to POTW is restricted.
c. Add 10% of subtotal if leachate is stored in ponds
d. Add 10% of subtotal if onsite treatment
e. Add 15% if trucking leachate
f. Add 10% if current leachate generation exceeds 5MG/year

Final adjustment factor: 35 %

g. Adjustment (subtotal x factor) $ 898,189

Total (subtotal + adjustment) $ **3,445,159**
(Place this total on Summary Cost Worksheet – line 9)

CALCULATION BRIEF
BONDING WORKSHEET I
LEACHATE MANAGEMENT
ERSI

OBJECTIVE: **Determine the total bond amount required for leachate management.**

METHODOLOGY: Estimate leachate management costs at the landfill, as required in DEP Bonding Worksheet I.

LEACHATE MANAGMENET SYSTEM DESCRIPTION:

Leachate generated from the disposal areas at the landfill will be pretreated as necessary at the site. The leachate will be discharged to the Local POTW.

Leachate generated is collected in a piping network located within base areas of the landfill. The leachate drains to one of five sump areas, each serviced by a pump house. The leachate is pumped from the landfill via a sideslope riser system to the double contained storage tanks.

LINE ITEM ASSUMPTIONS AND CALCULATIONS:

1. The number of years of sampling assumes that the closure of the landfill will require one year, and that 30 years of post-closure remain, for a total of 31 years.

2. Annual leachate volume generated was calculated using the HELP model for the site from Form 25. The HELP model leachate generation data was used to populate the table provided.

3. The annual cost to manage leachate was estimated based on costs incurred by similar sites. Additional monies have been added to account for periodic cleanout of the leachate storage tanks ($10,000 every 10 years or $30,000/31 years). Additional monies have been added to replace the aeration equipment at year 15 ($40,000 or $1,290/year). The cost for regular quarterly sampling and POTW sampling is estimated at $10,200/year. This is based on the current rate Martin and Martin, Inc. charges at a similar site.

4. The unit cost for discharge to POTW is based on costs incurred by similar sites.

7. The unit cost for transport and disposal of leachate is based on recent pricing at a similar site.

9. The cost for a pre-treatment system is based on recent pricing at a similar site.

Category:

C.) Significant Industrial Accounts:

Description: Any user subject to National Categorical Pretreatment Standards under 40 CFR 403.6 that discharges an average flow of 25,000 gallons or more per day of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater); contributes a process waste stream which makes up for 5 percent or more of the average dry weather hydraulic or organic capacity of the **LLVSA's** treatment plant; or is designated as such by the **LLVSA** on the basis that the user has reasonable potential for adversely affecting the **LLVSA's** operation or violating any pretreatment standards or requirements. All significant industrial users will be billed quarterly based on the actual water consumption for the billing quarter. The **LLVSA** will base the actual water consumption from Pennsylvania American Water Company records. In addition, all other discharge such as raw leachate, septic discharges will be charged the following rate.

Water Consumption Breakdown:

First 12,000 gallons per quarter - $80.00 minimum

Next 488,000 gallons per quarter - $80.00 minimum plus $14.82 per 1,000 gallons over 12,000 gallons up to 500,000 gallons

$11.76/1000 gallons or $0.0176/gal

Next 500,000 gallons per quarter - $80.00 minimum plus $14.82 per 1,000 gallons over 12,000 gallons up to 500,000 gallons, plus $12.49 per 1,000 gallons from 500,001 to 1,000,000 gallons

Over 1,000,000 gallons - $80.00 minimum plus $14.82 per 1,000 gallons over 12,000 gallons up to 500,000 gallons, plus $12.49 per 1,000 gallons from 500,001 to 1,000,000 gallons, plus $10.83 per 1,000 gallons over 1,000,000 gallons per billing quarter

Section 2 – Annual Discount

Flat rate residential customers will be given the option at the time of the first annual billing no later than, March 31st, of paying the annual user rate charge in full less a discount of 5% if payment received within thirty (30) days after the date of bill, said discount is in addition to any and all other discounts offered by the **Authority**.

Section 3 – Revised Rates

The Rate Schedule adopted by Section 1 hereof shall be revised and modified from time to time as may be necessary to meet the requirement of the Trust Indenture and Service Agreement, as well as the operation of the **Authority**.

Section 4 – Prior Resolutions

Date Prepared
May 2025
Revised 10/25
Revised 3/26

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

I.D. Number
100932

BONDING WORKSHEET L
SUMMARY COST WORKSHEET

Cost Summary - Landfills

1.	Decontaminating the Facility	$ 103,921
2.	Capping/Closure	$ 2,841,843
3.	Groundwater Monitoring System	$ 470,190
4.	Surface Water Monitoring	$ 63,302
5.	Private Water Supply Monitoring	$ 0
6.	Gas Monitoring	$ 32,669
7.	Gas Collection and Maintenance	$ 1,545,034
8.	Other Monitoring	$ 62,000
9.	Leachate Management	$ 3,445,159
10.	Borrow Area Closure	$ 18,993
11.	Maintenance Costs	$ 545,611
12.	Other Costs[1] _____	$ 0
13.	Other Costs[1] _____	$ 0
	Subtotal	**$** 9,128,722

Inflation

14.	Inflation rate (projected inflation for the next three years based on the inflation for the prior three years).	6.8 %
15.	Inflation cost for facility (subtotal x line 14)	$ 620,753

Contingency and administrative fees

16.	Administrative fees (5%) (subtotal x 0.05)	$ 456,436
17.	Project Management (5%) (subtotal x 0.05)	$ 456,436
18.	Contingency fee amount (subtotal x rate of contingency fee from Table 1)	$ 912,872

(<5 mil. = 12.5%; 5 mil. - <10 mil. = 10%; 10 mil. <20 mil. = 7.5%)

Total (subtotal + line 15 + line 16 + line 17 + 18) **$ 11,575,219**

[1] You should include any costs that would be incurred by the Department, but were not included in these sheets. Provide separate sheets for documentation.