



# pennsylvania

DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

January 3, 2020

Dominick DeNaples, JR  
Keystone Sanitary Landfill Inc.  
249 Dunham Drive  
Dunmore, PA 18512-0249

Re: NPDES Application Incomplete  
Keystone Sanitary Landfill  
Application No. PA0276278  
Authorization ID No. 1300190  
Throop & Dunmore Boroughs, Lackawanna  
County

Dear Mr. DeNaples:

The Department of Environmental Protection (DEP) received your application for an Individual IW NPDES permit on December 18, 2019 to allow for discharges to the Eddy Creek and Little Roaring Brook watersheds, plus proposed beneficial use of treated leachate for dust control (lined/unlined areas including access roads) and/or onsite utility water (leachate treatment plant; buildings, and tire wash). DEP has reviewed the Individual IW NPDES Permit application and has determined that it contains significant deficiencies that render it incomplete and inadequate for technical review. The Department will require submittal of a complete and technically adequate application within sixty (60) days of this letter's issuance. Issues include:

1. General:

- a. Eddy Creek Outfall Location: The proposed "Eddy Creek" outfall location (adjacent to the IWTP) does not appear to be on the historic Eddy Creek channel as shown on Figure 3 (Site Plan based on 2016 aerial photography), USGS Topography and DEP E-maps. The Application Section 6.0 indicated the proposed Eddy Creek discharge location would have a 0.0467 square mile drainage area (either discharge is not going to Eddy Creek or that Eddy Creek does not exist at the discharge location).
  - i. The NPDES and WQM Permit Applications do not show any existing/proposed piping and/or surface drainage channel to direct the effluent to the historic Eddy Creek channel.
  - ii. Identify how and where the discharge will reach a free-flowing portion of the historic Eddy Creek channel (depicted in USGS topography) on provided topographic drawings showing existing conditions (including contour elevations). Identify any existing permitted/proposed piping and/or surface water channel (with identification of any relevant permitting) that would be used to convey the effluent to the historic channel. Clarify if you possess any required rights-of-way.

- iii. In the absence of a direct channel to the historic Eddy Creek channel, the discharge will be considered direction of effluent wastewater to the underlying groundwater/mine pool by infiltration. In that event, you would have to apply for a land discharge WQM permit and/or Underground Injection Well.
- b. Eddy Creek Condition: The Department Clean Water Program Geologist and Biologist indicate that the Eddy Creek watershed has been extensively modified and that the stream no longer exists in portions of the historic Eddy Creek channel (between the landfill area and confluence with the Lackawanna River). This type of situation raises concerns of zero dilution and infiltration into underlying mine pools (potentially worsening groundwater conditions) plus other potential negative impacts.
- i. Clarify if there is any plan to restore Eddy Creek.
  - ii. Verify accuracy of all provided topographic maps/figures information.
  - iii. Provide a topographic drawing showing Eddy Creek between landfill area and the Lackawanna River confluence (showing all roads, culverts, residences, businesses, schools, etc.). Identify location of first aquatic life use. Address potential erosion/hydrology concerns if a dry channel discharge is proposed.
- c. Hydrogeological Concerns (Eddy Creek and proposed beneficial use): The DEP Clean Water Program Geologist indicated that he previously requested the following information that must be addressed in the NPDES/WQM Permit application(s):
- i. A Hydrogeological Study of the Eddy Creek hydrology (infiltration and permanence; chemical characterization of the receiving groundwater) because Eddy Creek is a “losing” and “gaining” stream with infiltration into the underlying mine pool.
  - ii. A risk assessment evaluation of properties along Eddy Creek to the confluence with the Lackawanna River.
  - iii. Identification of what are the (reverse osmosis discharge) radionucleotides concentration(s) in the proposed effluent discharge and beneficial use applications.
  - iv. A report providing comprehensive understanding of the areas receiving the spray irrigation (beneficial use or other) delineating and characterizing the discharge that would not be covered under the PADEP Waste Management Program MSW Landfill ground/surface water monitoring. This would include any areas outside of the overall Eddy Creek watershed.
  - v. An evaluation and proposed monitoring program for determining when spray irrigation/beneficial use can occur in terms of precipitation (evaporation, transpiration, precipitation loadings). What percentages infiltrate, evaporate, or runoff should be quantified.

- vi. Clarify if the treated effluent will be used in the quarrying operations onsite, with potential exposure route to the public. In that case, the WQM Permit Application would have to address this exposure route.
- vii. A complete hydrogeological study addressing infiltration into the shallow groundwater system and deeper aquifer system. This would require groundwater monitoring around any basin receiving the treated effluent by direct runoff or infiltration.

Please note that the NPDES/WQM permit applications must contain all relevant information as "stand alone documents". The application(s) cannot cross-reference DEP Waste Management permits, permit applications, and monitoring reports unless the relevant information is included as NPDES/WQM permit application supplements. Any Hydrogeology-related submittal will have to be signed and sealed by a PA Professional Geologist.

2. Related Permit/Permit Applications:

- a. Concurrent WQM Permit Application No. 3519201: The concurrent WQM Permit Application No. 3519402 (permitting and upgrading of existing Industrial Wastewater Treatment Plant a.k.a. "Leachate Treatment Plant" (LTP) plus proposed beneficial uses) is under separate concurrent review. The Department will be issuing a separate incompleteness letter whose issues must be adequately addressed to allow NPDES permitting to proceed. Overlapping concerns include:
  - i. Verify that the WQM Permit Application is consistent with the NPDES permit application and vice-versa. The Department has noted informational discrepancies.
  - ii. The NPDES Permit Application must contain all relevant details regarding any onsite beneficial use of treated leachate for dust control or other purposes. The future NPDES Permit will also incorporate any applicable DEP Clean Water Program Supplemental Forms for any required reporting of groundwater and/or surface water quality relating to the proposed beneficial uses.
- b. Existing General Permit PAG-03 (Stormwater) NPDES Permit No. PAR502203: In accordance with DEP Policy and to address proposed beneficial uses, the existing PAG-03 (stormwater) General Permit must be merged into the site-specific Individual IW NPDES Permit. Expand this NPDES Permit Application to address all existing stormwater outfalls and NPDES stormwater permitting requirements (including present General Permit stormwater BMPs, Outfall(s), inspection plan, etc.). Please note that the proposed onsite beneficial use of leachate triggers additional permitting requirements.
  - i. Provide copies of the last three (3) years Stormwater Annual Reports/Stormwater Annual Inspection Reports and stormwater sampling data required by the General Permit with the response to this letter.
  - ii. If there is additional stormwater/surface runoff sampling data/analysis available, provide the last three (3) years of data in a table format

(applicable permit; sampling location designation; sampling point latitude/longitude and elevation; monitoring date; monitored constituents with Quantitation Limits).

- c. MSW Landfill Major Modification and PADEP AQ Request for Determination (RFD): Please note that permit coordination requirements apply. Provide complete and accurate courtesy copies of the concurrent MSW Landfill Application(s) and PADEP AQ RFD (leachate treatment plant and any beneficial use requirements).
  - d. Future Landfill Expansion: The Department understands that you might be seeking to expand the landfill within the future 5-year NPDES permit term. Such an expansion will likely modify leachate production rates/loadings (requiring treatment) and existing stormwater controls (new or revised stormwater outfalls, stormwater drainage areas, etc.). A Major NPDES Permit Amendment will likely be required to address expansion-related site changes concurrent with any DEP Waste Management MSW Landfill expansion application.
  - e. Preliminary Effluent Limits (PEL) Letters: The permit application(s) contained previous DEP PEL Letters (May 12, 2016 PEL Letter (Eddy Creek); May 10, 2019 PEL Letter (Little Roaring Brook)) which are no longer valid. Both letters indicated any change in the size or location would require a re-evaluation of effluent limits. The proposed (0.18 MGD monthly average; 0.20 MGD daily max discharge) discharges are greater than the identified existing pretreatment IWTP capacity (0.15 MGD) and greater than the discharges assumed in the PEL letters (whose outfall locations were not identified):
    - i. Eddy Creek: 0.107 MGD summer and 0.06 MGD winter discharge
    - ii. Little Roaring Brook: 0.107 MGD discharge.
3. NPDES Application Checklist for IW NPDES Permit:
- a. Item 2 (Application copies): Provide one original and two complete and technically adequate copies of the updated application in the response to this letter. Include copies of updated site PPC Plan.
  - b. Item 6 (Proof of Act 14 Notices): Provide the required proof of completed Act 14 notifications). If scope of permit expands (see above), new notification might be required.
  - c. Item 7 (Newspaper Notification): Provide the required proof of newspaper notification. If scope of permit expands (see above), new notification might be required.
  - d. Item 8 (Topographic Map) and NPDES Application Discharge Information Item 1: Provide the required Topographic Map showing the treatment facilities, intake structures and Outfalls. The topographic map must show existing topography (do not use obsolete USGS Map topography not reflecting current/proposed conditions) extending at least one mile beyond the property boundaries of the facility (landfill), identifying treatment facilities, intake structures, and outfalls. Also identify all springs and surface water bodies in the area, all drinking water

wells within ¼ mile of the landfill facility, all hazardous waste management facilities, and wells where fluids are injected underground which are associated with the facility for which the NPDES permit is being requested. If a topographic map is not available use a map that depicts surface waters within the one (1) mile boundary. Due to size of landfill facility, provide full-sized Topographic Map with present/proposed topographic/landfill contours, elevations, and all required information. Delineate all existing/proposed stormwater drainage areas/stormwater outfalls. In terms of submitted figures:

- i. Figure 1 (Site Location Map) did not include the required information in the USGS Topo Map excerpt, and appeared to contain outdated information (due to site regrading over the years; area development, etc.),
  - ii. Figure 2 (Site Plan) did not show how Outfall No. 001 discharges could reach the identified receiving creeks (Eddy Creek and Little Roaring Brook).
- e. Item 9 (Site Plan): Identify all significant site features including existing/proposed stormwater outfalls and existing stormwater basins/controls discharging to existing and/or proposed stormwater outfalls. Show existing/proposed topographic contours with elevations. The site plan must delineate the drainage areas to each stormwater discharge.
- f. Item 10 (Line Drawing/Process Flow Diagram with water balance): The referenced Figure 2 did not meet the application requirements. Provide a line drawing illustrating the flow of water and wastewater through the facility(ies), with a water balance. The line drawing should show the route taken by water in the facility from withdrawal to discharge. Show all sources of intake water and operations contributing wastewater, including process and production areas, sanitary flows, cooling water, any groundwater being remediated, and stormwater runoff. The line drawing should present:
  - i. Each wastewater source, with design flows or, if not applicable, average monthly flows.
  - ii. Points of introduction for chemical additives and/or wastewater treatment chemicals.
  - iii. Location(s) of sampling points used to complete the Analysis Results Tables.
  - iv. All significant losses of water to products and atmosphere, discharges to surface waters and to publicly owned or other wastewater treatment facilities.
- g. Item 15 (Module 1 (Stormwater)): Provide the complete Module 1 with all items addressed, including stormwater sampling data from all existing stormwater outfalls.
- h. Item 16 (Module 2 (Groundwater Remediation)): If the facility directs and/or will direct any groundwater to the IWTP for treatment, provide this completed Module.

4. General Information Form:

- a. Client Information Section: DEP EFACTS indicated the applicant has a Dun & Bradstreet Number. Therefore, that item is not "N/A".
- b. Site Information Section:
  - i. The Department's understanding is that the facility will be seeking a plant expansion. Clarify if any section information will have to be updated in the future.
  - ii. The Client-to-Site Relationship was identified as "owner". Verify that the NPDES applicant is the "operator with financial control" as required by the NPDES regulations.
- c. Facility Information Section: Provide the required latitude and longitude with all GIS information items completed.
- d. Project Information and Land Use Information Sections: Application inputting triggered automated EFACTS warnings of potential land use conflicts and Environmental Justice requirements. Identify any existing/potential land use conflicts and/or Environmental Justice issues.
- e. Coordination Section: Verify accuracy of responses in event of any proposed Keystone Landfill Expansion proposal within the future 5-year NPDES Permit Term and/or earthwork requirements to allow direction of stormwater or treated wastewater to the waters of the Commonwealth.
  - i. Item 5.0 – 5.3 (Earth Disturbance/Waterways & Wetlands/Floodplain): If there will be any required earth disturbance outside of existing MSW Landfill Permit-covered structures (building, stormwater controls, piping/surface channel to direct discharge to outfalls, outfalls), complete these items.
  - ii. Item 9 (Planning): In accordance with the May 10, 2019 PEL Letter (page 3) and May 12, 2016 PEL Letter (page 3), the project was required to be included in the municipality's Official Sewage Plan. The project also involves increased leachate flows (0.18 MGD) above the application-identified present 0.15 MGD flows to PAWC Scranton WWTP. Therefore, the response must be changed to "yes" and a copy of the Planning Approval letter included in each application copy.
  - iii. Item 13.0 (Air Emissions): Complete the required subitems.
  - iv. Item 18.0 (Treatment, storage, reuse or disposal of waste): Address the proposed reuse of treated leachate here in terms of types and amounts.

5. NPDES Application Form:

- a. General Information Section: Clarify if any Part II Water Quality Management Permit was ever issued to this facility.
- b. Discharge Information Section: Update to explicitly address all existing/proposed stormwater outfalls (whether previously identified in the General Permit PAG-03 Application or not). In addition:

- i. Item 2: Provide Total Hardness data for upstream of the proposed NPDES discharge outfalls.
- ii. Items 3, 4, and 5: List all outfalls (including stormwater outfalls/surface water monitoring points (being used as de facto stormwater outfalls) and any internal monitoring points (IMPs) for influent leachate and treated effluent leachate).
  1. Show how Outfall discharges will reach the receiving streams on provided topographic drawings. Clarify whether the proposed Little Roaring Brook outfall is upstream or downstream of the PWS surface water intake.
  2. Verify all outfall/IMP latitude/longitude and provide approximate elevations. Provide related GIS information including approximate outfall elevations.
  3. Identify the treated wastewater sampling locations on the provided drawings/figures.
  4. Both identified outfalls have the same flows (0.18 MGD average; 0.20 MGD max). The (separate) WQM Permit Application Module 3 indicated a 0.33 MGD max lagoon discharge to the proposed Reverse Osmosis (RO) units. Verify accuracy of all information.
    - a. Will Outfalls be used simultaneously or be used alternately (with/without discharge to PAWC Scranton WWTP)?
    - b. Are the proposed Outfall locations the same as addressed in the previous PEL Letters?
    - c. Clarify if fracking wastes have been or will be received by this landfill.
  5. Explain how and where treated wastewater will be beneficially used onsite, and any receiving stormwater outfall (previously permitted or not).
- c. Treatment Facility Information Section:
  - i. Items 1 (Wastewater Treatment Process) and 3 (Upgrades):
    1. The process flow diagram must show all existing/proposed flow-meters/measurement points, sampling points, and chemical injection points. Differentiate between existing units/equipment and proposed units/equipment. Provide one process flow diagram for the as-built/as-constructed IWTP and a second process flow diagram for the proposed modified facility. If phased construction is planned, clearly distinguish between Phase I and Phase II process units/equipment.
    2. Expand this section to address any stormwater treatment facilities (including sediment basins, sediment traps or other).
    3. The referenced Figure 2 must be expanded to address the aerated leachate storage lagoons (clarifying if biological treatment has or will occur therein).

- ii. Items 4 (Wastewater Treatment Chemicals) and 5 (Additional Treatment Chemicals): Complete all columns. Provide MS-DS for the polymer and “cleaners”.
- d. Chemical Additives Section: If the correct response is “none”, state none. Otherwise complete this section. Please note that the WQM Permit Application indicates potential uses of Chemical Additives in the Reverse Osmosis System. See DEP Chemical Additives Webpage for additional information on DEP requirements.
- e. Production Data for Effluent Limitation Guidelines: As this is an existing landfill, clarify leachate generation/treatment volumes (total annual, max monthly, daily max, month of max generation, annual average) for the last two (2) years. If volumes are expected to increase within the 5-year NPDES Permit Term, quantify the increases and explain in detail.
- f. Pollutant Identification and Analyses Section and Pollutant Group Tables: This is an existing landfill IWTP with existing leachate influent and treated leachate effluent going to an existing offsite Treatment Plant. All application information must be provided upfront. Complete these sections (all items and columns completed, with no “TBD” response)
  - i. Analysis results are required for each pollutant listed in the sampling results tables. Due to the EPA Sufficiently Sensitive Rule, meet the DEP Target Quantitation Limits (QLs) found in the NPDES Application Instructions. The EPA Sufficiently Sensitive Rule requires the Department to treat any “insensitive” non-detect (ND) concentration as that constituent being present at the insensitive ND concentration.
  - ii. Provide estimated leachate effluent quality after construction/start-up of proposed IWTP upgrade and/or landfill expansion (if proposed) in terms of the different pollutants.
  - iii. Pollutant Identification and Analysis Section Item 4: The application indicated that “optional site-specific data” was not attached. See General Comments above for previously requested site-specific information. See also Application Instructions Attachment B (Discussion of Optional Site-specific Data Submission Requirements) for additional options.
- g. Preparedness, Prevention & Contingency (PPC) Plan Section: The “Updated Integrated Contingency Plan” did not appear to address the requirements of the DEP’s “Guidelines for the Development and Implementation of Environmental Emergency Response Plans” (DEP ID 400-2200-001) NPDES-specific stormwater addendum (including PPC Plan Sections A through J), including minimum stormwater figure/drawing requirements. Provide an updated Contingency Plan explicitly addressing all NPDES stormwater requirements. In addition, it must address all requirements associated with the proposed beneficial use of treated leachate onsite.
- h. Other Toxics Pollutants and Hazardous Substances Table:



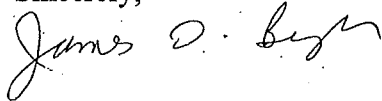
January 3, 2020

- i. If "none", then state none. Otherwise complete this table for all Application instructions Attachment A Table 2-listed substances that are known or suspected to be present in existing/proposed discharges. Verify that all ELG-related constituents are addressed either here or in the Pollutant Group Tables.
- ii. Identify any PFAS constituents and constituent concentrations in the treated effluent discharge(s).

In accordance with 25 Pa. Code § 92a.25, DEP may not process an application that is incomplete or otherwise deficient. The Department retains the right to deny an incomplete permit application. Please note that you have the option of withdrawing this NPDES Permit application.

If you have any questions, please contact me at 570.826.2308. If you have any hydrogeology-related questions, contact Mr. John Hannigan (DEP Geologist) through 570-826-2511. If your application is part of DEP's "Permit Decision Guarantee" Policy, the guarantee is considered void.

Sincerely,



James D. Berger, P.E.  
Environmental Engineer  
Clean Water Program

cc: Earthres Group, Inc.  
DEP Waste Management Program  
DEP Air Quality Program  
DEP Monitoring & Compliance  
DEP Clean Water Geologist  
DEP File

