GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

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Feb 28, 2025

Justley Harston, General Manager
Republic Services
5691 S Richland Creek Road
Buford, Georgia 30518

SUBJECT: Draft Site Limitations for Gwinnett County – Richland Creek Rd MSWL
Proposed MSWL Lateral Expansion
Permit No.: 067-032D (SL); GEOS Submission ID: 696823

Dear Mr. Harston:

The Solid Waste Management Program of the Environmental Protection Division (EPD) has completed its review of the December 11, 2024, revised, *Hydrogeologic Assessment Report for Proposed Lateral Expansion, Richland Creek Road MSW Landfill,* prepared by Bunnell-Lammons Engineering, Inc. (BLE). Based on the data submitted, EPD has drafted "Site Limitations" which would form the basis for design of the proposed landfill in a manner that complies with Georgia Comprehensive Rules and Regulations Subject 391-3-4, Solid Waste Management (Rules). These rules can be accessed online at https://rules.sos.state.ga.us/GAC/391-3-4.

Comments on the proposed facility's site suitability report and the draft "Site Limitations" are welcome. However, if EPD is to consider such comments prior to determining if a Site Suitability Notice is warranted for this facility, they must be received prior to April 3, 2025. Please note that issuance of a Site Suitability Notice by EPD does not constitute a permitting decision for the proposed facility and comments regarding siting issues may be considered up to the time a final permitting decision is made.

Please feel free to contact Beverly Tipton at 470-524-5790 if you have any questions.

Sincerely,

Charles J. Mueller, Chief
Land Protection Branch

Enclosure

cc: Keith Stevens, Beverly Tipton, William Cook – GA EPD
EPD Mountain District (Atlanta)
Daniel Cheek – HHNT

Draft Site Limitations
Gwinnett County – Richland Creek Road MSWL
Proposed MSWL Lateral Expansion

1. The area considered for acceptability includes only that within the line identified as "Property Boundary" and "Proposed Expansion Area" for the MSW landfill on Bunnell Lammons Engineering Inc's (BLE), *Site Layout and Boring Location Plan*, Figure 2, dated 9-10-2024.

2. Waste shall not be placed outside of the area defined by the lines identified as "existing waste limits" and "proposed expansion area" on BLE's, *Site Layout and Boring Location Plan*, Figure 2, dated 9-10-2024.

3. No solid waste shall be disposed in the ravines containing the intermittent streams and springs, as delineated on Sheet 2E (Potentiometric Surface, revised 8/8/1997), unless an underdrain system with a 5-foot vertical separation is provided between the solid waste and the invert of centerline of the intermittent streams. A double liner shall be installed between the piping structure or underdrain and the solid waste, the double liner shall be extended out from the centerline of the stream channel for a distance of 25 feet on both sides of the channel.

4. The underdrain system in the existing Stage 2 area shall be extended below the proposed expansion area. Underdrain systems shall be designed to maintain a five-foot separation between the seasonal high-water table and the proposed bottom of the liner. The underdrain system shall be designed by a Georgia registered professional engineer and demonstrate that the underdrain system is designed to prevent groundwater from reaching to within five feet of the bottom of the liner at any point between the drain lines. The outfall(s) of underdrain systems must be incorporated into the surface water monitoring plan for the site.

5. No solid waste shall be disposed on the power line easement unless permitted by the Georgia Power Company and approved by EPD.

6. A liner and leachate collection system must be placed beneath all areas proposed for waste disposal. The bottom of the liner system shall be kept a minimum of 5 feet above the groundwater elevation contours shown on BLE's Figure 9 *Composite Seasonal High Water Table Map – August 2013 to August 2014***,** dated 9-10-2024; and Figure 10 *Composite Seasonal High Water Table Map – March 2021 to March 2022*, dated 9-10-2024.

   Any perched groundwater zones encountered during excavation of the site shall be drained entirely, if possible, otherwise an underdrain system shall be required to maintain vertical separation from the waste. The outfall of the underdrain system shall be sampled as part of the facility's groundwater and surface water monitoring plan.

7. If during excavation of the site, any springs or seeps are discovered, EPD shall be notified immediately, and protective designs must be incorporated into the facility's design and operational plans, such that the spring or seep can be incorporated into the facility's groundwater monitoring system.

8. If non-rippable rock (bedrock) is encountered at an elevation above the approved base of the waste unit, or if non-rippable rock is removed during excavation, at least five (5) feet of clean, compacted, rubble-free fill, shall be placed above the non-rippable rock. Alternatively, an engineered layer (soil or a combination of soils and geosynthetics) shall be placed and compacted between the non-rippable rock and the base of the waste unit. The engineered layer shall include:

    a. One (1) foot of soil with a hydraulic conductivity equal or lower than 1×10^{-5} cm/sec constructed over one (1) foot of structural fill, or

    b. If a geosynthetic is used, the geosynthetic will have a hydraulic conductivity equivalent to or less than one (1) of 1 x 10-5 cm/sec soil and will be placed on a minimum of two (2) feet of structural fill.

    Installation of an alternative engineered layer over rock shall be documented and certified by a Professional Engineer or Professional Geologist registered in the State of Georgia and shall be included in the CQA report for the cell being constructed.

9. Structural fill shall be required in some portions of the expansion area to achieve the required base grade elevations. Structural fill shall meet the requirements of the EPD approved Construction Quality Assurance Plan within the EPD approved Design & Operational Plan.

10. A minimum 200-foot undisturbed buffer shall be maintained between the waste disposal boundary and the permitted property boundary.

11. A minimum 500-foot buffer shall be maintained between the waste disposal boundary and any adjacent residences and/or water supply wells.

12. A minimum 25-foot undisturbed buffer shall be maintained between the waste disposal area and any on-site springs, intermittent or perennial streams or surface water bodies except as permitted by the United States Army Corps of Engineers (USACE) or EPD.

13. A minimum 50-foot undisturbed buffer shall be maintained between the waste disposal boundaries and all wetlands, except as permitted by the United States Army Corps of Engineers (USACE) and allowed by EPD. A statement certifying that the landfill has been designed so that implementation of the Design and Operational Plan will not impact wetlands delineated on September 7-8, 2022, and shown in the Design and Operational Plan shall be submitted. This statement shall be signed and stamped by the professional engineer responsible for the Design and Operational Plan for the subject site. Wetland areas shall be delineated on the Design and Operational Plan.

14. All erosion control measures shall conform to the *Erosion and Sediment Control Act*, *Georgia Solid Waste Management Rules, Subject 391-3-4*, *Solid Waste Management* (Rules) and be protective of all perennial and intermittent streams and tributaries. Runoff from the entire facility must be routed at all times, either directly or via properly designed conveyance systems, to permanent sediment control impoundments.

15. The facility shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste or material to pose a hazard to human health and the environment.

16. This site is in a seismic impact zone as defined in the Rules for Solid Waste Management Rule 391-3-4-.05 (1)(g). The design engineer must certify that all containment structures are designed to resist the maximum horizontal ground acceleration specified in 391-3-4-.05 (1)(g) for the site and include a statement in the design documents indicating the maximum horizontal ground acceleration used in the design. Therefore, the registered professional engineer preparing the Permit Drawings and Operational Plan must stamp and sign each engineering drawing with the accompanying notation:

    l have reviewed the information presented in this drawing, and in my professional opinion, all containment structures are designed to resist a maximum horizontal ground acceleration of 0.15g in 250 years, or the maximum expected horizontal acceleration at the ground as determined by the United States Geologic Survey's Earthquake Hazards Program, as of the date of permit issuance, whichever is more conservative.

17. All soil borings, monitoring wells and piezometers that have been completed/installed at this site, shall be plugged, and abandoned, except for those locations that will be used as monitoring wells for the proposed landfill. Abandonments shall be performed in accordance with the Water Well Standards Act. Additionally, all soil borings, monitoring wells, and piezometers located within the proposed waste footprint shall be abandoned by overdrilling and filling with a non-shrinking cement/bentonite grout mixture via tremie pipe from the bottom to within 10 feet of the base of the landfill. The remaining borehole shall be filled with hydrated bentonite. The abandonment of all borings/piezometers/monitoring wells shall be supervised by a professional geologist (PG), or professional engineer (PE) registered to practice in the State of Georgia. A report documenting the abandonment shall be submitted to EPD prior to cell construction. This documentation shall be signed and stamped by the responsible professional geologist or engineer registered to practice in the State of Georgia.

18. Groundwater, surface water, and methane monitoring systems shall be installed at the site. The groundwater monitoring system shall include some monitoring wells completed in the bedrock. Foliation and joint orientation and lineament analysis shall be considered in determining bedrock monitoring well locations. Sampling parameters, sampling schedules, monitoring well construction, and spacing shall adhere to the guidelines established in the 1991 EPD document *Georgia Manual for Groundwater Monitoring*, the September 2021 EPD document, *Monitoring of Surface Water and Underdrain Systems at Solid Waste Facilities*, the September 2015 EPD document, *Methane Monitoring at Solid Waste Disposal Facilities*, and current USEPA Region IV guidance. The system design and monitoring requirements shall be detailed in groundwater, surface water, and methane monitoring plans that are prepared in accordance with *Georgia Comprehensive Rules and Regulations Subject 391-3-4 Solid Waste Management* (Rules), the guidance documents mentioned above, and are approvable by EPD.