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April 15, 2025

Mr. Andrew Grenzer
Chief, Solid Waste Operations Division
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Subject: **Response to Comments: Phase II Report**
Millersville Landfill and Resource Recovery Facility
Severn, Maryland

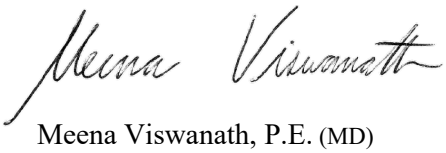
Dear Mr. Grenzer:

This letter has been prepared by Geosyntec Consultants (Geosyntec) in response to your January 15, 2025, letter regarding your review of the Phase II Geology and Hydrologic Report for the proposed vertical expansion of Cell 9 at Millersville Landfill and Resource Recovery Facility located at 389 Burns Crossing Rd in Severn, Maryland. Please find attached a detailed response to each comment made in your January 15, 2025, letter as well as two copies of the updated text, tables, figures, and added appendices of the Phase II report for your review.

If you would like to discuss any of the content of this letter, please do not hesitate to contact the undersigned at 410.910.7695 or mviswanath@geosyntec.com.

Sincerely,

Daniel Espinoza, E.I.T
Senior Staff Professional



Meena Viswanath, P.E. (MD)
Senior Engineer

ME1418A/MDE Phase II Response to Comments.docx

Geosyntec consultants

Response to Comments

Comments from the Maryland Department of the Environment (MDE) are numbered below consistent with the comment letter provided on 15 January 2025. Responses appear in *blue italics* below each comment. Quoted text is shown in "quotes" and new text added to each report is shown in **bold**.

Phase II Report: Site Geologic Study

1. The Table of Contents omitted Section 2.3 for MDE Checklist, which is included on page 8.

   The updated text now reads:

2. Page 15, Section 4.4.3, Groundwater Elevations and Flow, you have stated that the groundwater levels measured from the monitoring wells and piezometers within the Sand II (Upper Patapsco Formation) were used to evaluate groundwater elevations and flow direction. In addition, the contour maps generated shows the elevated, depressed and highest observed groundwater conditions without stating in the narrative the groundwater flow direction as shown in Figures 9 through 11. The groundwater flow direction within the vicinity of the proposed Cell 9 vertical expansion must be included in the discussion as depicted in the figures.

   The updated text now reads: "A summary of calculated groundwater elevations and well construction details are provided in Tables 3 and 8, respectively. Those data were used to develop contour maps showing elevated, depressed, and highest observed groundwater elevations for the Sand II aquifer, which are provided as Figures 9 through 11. ***As these figures show, groundwater elevations in the Sand II aquifer at the site are highest at the northwest corner of MLFRRF and groundwater generally flows towards the east and southeast. Groundwater flow at Cell 9 is similar, with the highest elevations in the Sand II aquifer in the northwest corner of Cell 9 and flowing towards the east and southeast.*** *As previously discussed, only contour maps showing elevated, depressed, and highest observed groundwater elevations for the surficial aquifer are required per COMAR 26.04.07.07(C)."*

3. Page 15, Section 4.4.3, Groundwater Elevations and Flow, mentioned that the data collected from the monitoring wells were used without including the respective well completion reports. However, only one well – TW-29 had its well completion report included in the Phase II Report. The well completion reports for all monitoring wells used to determine the groundwater elevations and flow direction must be included as an appendix in the revised Phase II Report so that the Report can be reviewed as a stand-alone document.

   A complete review of monitoring wells utilized in the report was performed to ensure consistency across the report. For the purpose of this report, only monitoring wells in the vicinity of Cell 9 and a selection of additional wells around the perimeter of the property required to illustrate the groundwater flow at the site have been considered. The list of wells in Section 4.4.3 and Table 3

has been updated to include only the wells used to create the groundwater elevations maps shown in Figures 9 through 11, which are all screened in the Sand II layer. This list of wells is now TW-01, TW-02A, TW-03, TW-04, TW-05, TW-09C, TW-10A, TW-14, TW-18, TW-19, TW-20R, TW-25, TW-25A, TW-28, TW 29, TW-30, TW-31, and TW 32.

Similarly, the list of wells in Section 4.4.4 and Tables 4 through 6 were updated to include only the wells needed to characterize groundwater quality in Sand I and Sand II around Cell 9, including upgradient, downgradient, and cross-gradient wells. This list of wells is now TW-02 and TW-03A (screened in Sand I) and TW-01, TW-02A, TW-03, TW-04, TW-05, TW-10A, TW-19, TW-20R, TW-28, TW-29, and TW-30 (screened in Sand II).

Figure 21 was updated to more clearly indicate the wells used around Cell 9 to monitor groundwater elevations (in Sand II) and groundwater quality (in both Sand I and Sand II).

The monitoring wells are now described in Section 3.2.1. Well completion logs for all the wells shown in Figure 21, which represent all the wells used for this Phase II report, are now included in Appendix B.4. Table 8 has also been updated to indicate the zone in which each well is screened as well as whether it is used to evaluate groundwater elevations, groundwater quality, or both.

4. Page 16, Section 4.4.4, Groundwater Quality, comprises of the groundwater quality evaluation for VOCs and Semi VOCs, Metals and General Chemistry during the spring and fall of 2021 through 2023, without including a discussion for comparison with the historical groundwater quality evaluation. Please include the discussion to compare the current groundwater quality evaluation with the historical groundwater quality around the proposed Cell 9 vertical expansion.

A report comparing current groundwater quality to historical groundwater quality at the MLFRRF was prepared by SCS Engineers and submitted to MDE on April 2, 2025. This report has been summarized in a new section of the Phase II report, Section 4.4.4.5, as follows:

"As described in Section 3.2.2.3, SCS recently prepared a report comparing recent VOC groundwater quality data (including the data presented in this Phase II report) to historical groundwater quality data, including that presented in the ACM (ERM 2012) and in the 2017 groundwater study along the southern boundary (SCS 2017). As described in SCS's groundwater update (2025), in 2012, ten wells had measured exceedances of the GWPS for VOCs, with all ten wells located in the northern half of Millersville Landfill and along its eastern boundary, downgradient from Cells 1 through 8. In 2024, however, GWPS exceedances for those VOCs identified in the ACM are limited to one well, TW-25A, which is located east of Cell 567.

SCS also evaluated groundwater data for exceedances of the GWPS for 1,1-dichloroethane, because the GWPS was reduced in 2024 from 1,370 µg/L to 2.8 µg/L. Based on data collected in 2024, GWPS exceedances for 1,1-dichloroethane were measured in 12 wells in the northern half of Millersville Landfill and along its eastern boundary. As a result, 1,1-dichloroethane was added to the MNA program.

None of the wells identified in SCS's groundwater update as having exceedances of the GWPS for VOCs are located along the southern boundary in the vicinity of Cell 9. Along the southern boundary in the vicinity of Cell 9, no wells had detected VOC concentrations greater than GWPS in 2012, 2017, or 2024."

5. Page 21, Section 4.5, Potential Contamination of State Waters, references 2009 Environmental Monitoring Plan (EMP) that is implemented for groundwater monitoring for the site. This is a 15-year-old EMP. To ensure that there is no contamination impacting the waters of the State, you are required to have a more recent approved version of the EMP to guarantee that all groundwater and surface water monitoring would capture any potential contamination. Therefore, a final approved 2024 EMP must be included as part of the Phase III Report. Please refer to the comments made on the 2024 draft version for a prompt response.

   The Phase II report has been modified to clarify the role of the existing 2009 EMP and the newly approved 2025 EMP, as follows:

   In Section 3.2.2, the updated text now reads: "Groundwater monitoring at the existing MLFRRF, including monthly groundwater level measurements and semiannual groundwater quality monitoring, is consistent with the monitoring requirements detailed in the MDE approved Environmental Monitoring Plan (EMP) (Environmental Resources Management [ERM] 2009) and MDE refuse disposal permit number 2022-WMF-0240. ***In 2024, the County submitted an updated EMP to MDE, which was approved on January 27, 2025 (SCS 2025). Moving forward, MLFRRF will modify the groundwater monitoring process to comply with the 2025 EMP.****"*

   In Section 4.4.4, no modification was made to the text, as the reference is to historical data collected under the 2009 EMP.

   In Section 4.5.1, the updated text now reads: "As required by the MLFRRF solid waste permit, groundwater monitoring at MLFRRF is implemented under the approved EMP. ***As noted above, groundwater monitoring was previously conducted in accordance with the EMP prepared in 2009 (ERM 2009); following MDE approval of the 2025 EMP on January 27, 2025, groundwater monitoring will be conducted in accordance with the 2025 EMP (SCS 2025).****"*

   In Section 4.5.2, the updated text now reads: "As required by the MLFRRF solid waste permit, surface water monitoring at MLFRRF is implemented under the approved EMP. ***As noted above, surface water monitoring was previously conducted in accordance with the EMP prepared in 2009 (ERM 2009); following MDE approval of the 2025 EMP on January 27, 2025, surface water monitoring will be conducted in accordance with the 2025 EMP (SCS 2025).****"*

   Additionally, after reviewing the 2009 and 2025 EMP, it was noted that SVOC monitoring is only performed at the site at TW-26R as part of the Cell 8 underdrain monitoring program, which is not affected by any changes to Cell 9; as a result, TW-26R and the associated SVOC evaluations were removed from the Phase II report.

   The approved 2025 EMP will be submitted together with the Phase III report.

6. Page 21, Section 4.5.1 Groundwater, paragraph two states "currently, the extent of groundwater contamination in Sand I and Sand II in the vicinity of Cell 9 does not appear to be associated with landfill operation in the active portion of Cell 9." Since there is detectable contamination within the vicinity of the proposed Cell 9 VE, and the contamination is not attributed to landfilling activities from the active Subcells of Cell 9, an alternate source demonstration of contamination detected in Sand I and Sand II should be submitted to MDE for review and approval. In response to MDE's letter dated May 11, 2018, it was stated that there was no hydraulic path for VOC detections in Well TW-29 that would result from releases at these legacy land use locations. The revised Phase II should include the findings

from an alternate source demonstration and propose some mitigative solutions to avoid contamination of the aquifers.

Section 4.5.1 has been rewritten to reference the ACM and other groundwater studies at the site; describe the source of the contamination in Sand I and Sand II; summarize the current status of the detections near the southern boundary; and describe the ongoing efforts to mitigate the existing contamination and avoid future contamination. The updated Section 4.5.1 now reads:

*"**As noted in the ACM (ERM 2012) and the follow-up southern boundary study (SCS 2017),** groundwater contamination from the operation of the landfill has occurred in the past due to historical waste **management and** disposal practices (**e.g.,** disposal cells operated between 1975 and 1992, prior to the implementation of Subtitle D of the Resource Conservation and Recovery Act [RCRA]**, a former underground storage tank and septic tank leach field, a former maintenance shop, etc.**) and has influenced the groundwater quality of Sand I and Sand II and in the confined water-bearing unit in Clay I.*

Currently, the extent of groundwater contamination in Sand I and Sand II in the vicinity of Cell 9, which has historically been below groundwater protection standards, does not appear to be associated with landfill operations in the active portion of Cell 9. As described in Section 3.2.2.3, SCS has concluded that VOC detections near the southern property boundary are likely from legacy land uses, not the active Cell 8 or Cell 9 (SCS 2017; SCS 2025).

As summarized in the ACM (ERM 2012), since 1992, the County has implemented multiple corrective actions to control the source of the groundwater contamination at MLFRRF, including constructing Cells 8 and 9 with a double liner system, relocating waste from Cell 1-West, Cell 1-Saddle, and Cell 3 to the lined Cell 8, capping Cells 1-East, 2, 4, and 567, and installing a landfill gas recovery and destruction system at all active and capped cells. Following the issuance of the ACM, the County also closed and capped Cell 8 in accordance with state and federal requirements and upgraded existing condensate controls at Cell 567 to route condensate to the leachate management system. MLFRRF also performs off-site semi-annual, annual, and biennial groundwater monitoring in conjunction with the landfill monitoring program defined in the approved EMP; has prepared an MDE-approved Water Supply Contingency Plan to provide an alternative supply of potable water to off-site groundwater users if their wells are impacted by the off-site groundwater conditions; and has voluntarily replaced residential wells screened in Sand II with new wells screened in Sand III as part of its "good neighbor policy". The conclusion of the ACM was to implement MNA as an additional corrective measure at the site.

As noted by SCS (2025), as of 2024, no VOCs have been detected at concentrations above their respective GWPS in Sand II monitoring wells associated with the southern boundary investigation (TW-1, TW-2A, TW-28, TW-29, TW-30, TW-31, TW-N, and TW-W). In addition, SCS (2025) also noted that no new contaminants of potential concern have been identified. Since VOC concentrations are generally improving, VOC concentrations remain below GWPS, and potential receptor pathways are monitored and controlled, no further investigation is required under 40 CFR Part 258 unless VOC concentrations exceed GWPS.

*Near Cell 9, groundwater contamination could potentially occur **in the future** because of leachate leakage through the liner (see Section 5.2) and **would** most likely only influence the groundwater*

in Sand I and Sand II and the confined water bearing unit in Clay I. ***However****, vertical movement of contaminants to the lower confined aquifers would be restricted by the composite liner system (i.e., double geomembrane over clay barrier layer; Figure 18) proposed to be constructed below all areas in contact with waste or leachate****, in accordance with state and federal requirements****. Therefore, it is unlikely that leachate generated from the landfill will impact the lower confined aquifers.*

As required by the MLFRRF solid waste permit, groundwater monitoring at MLFRRF is implemented under the approved EMP. ***As noted above, groundwater monitoring was previously conducted in accordance with the EMP prepared in 2009 (ERM 2009); following MDE approval of the 2025 EMP on January 27, 2025, groundwater monitoring will be conducted in accordance with the 2025 EMP (SCS 2025).*** *Should any leachate constituents at concentrations above the GWPS reach the monitoring wells located on the perimeter of the MLFRRF property, proper remedial action will be taken to prevent risks to human health and the environment."*

7. Table 3, Monthly Groundwater Elevations, the groundwater level reading for the wells used to generate the groundwater contour maps included in Figures 9 through 11, must be highlighted or bolden in Table 3.

   Table 3 has been modified to only include wells used to generate the groundwater contour maps included in Figures 9 through 11. The months considered to represent the "depressed" and "elevated" conditions are footnoted, while the points representing the highest observed groundwater at each well location are bolded.

8. Table 3, footnote #3 states "Data point is inconsistent with previous groundwater elevation is suspect to be erroneous." Be advised, suspected erroneous groundwater level readings cannot be ignored from the analyses unless a statistical outlier test has been performed demonstrating that they are outlier results. In addition, you must indicate the methodology used in determining an outlier groundwater level result and verify that the method used is within the guidance of the Statistical analysis of *Groundwater Monitoring Data at RCRA Facilities: Unified Guidance, March 2009* by the Environmental Protection Agency. Finally, any determined erroneous results, or analyses conducted must be addressed in the narrative of the Phase II Report.

   Geosyntec performed a ChemStat analysis using Dixon's Test for Outliers (which is recommended in the USEPA guidance for smaller data sets up to 25 points) on the data from groundwater wells with suspected erroneous groundwater level readings (TW-5, TW-24, TW-25, and TW-25A). The analysis identified between one and three readings at each of the wells that are considered outliers with a 95 percent confidence level threshold.

   The text in Section 3.2.2.1 is updated as follows:

   "Monthly groundwater level measurements at MLFRRF are collected by the ARM Group, LLC, (ARM) of Columbia, Maryland. Depth to groundwater level for each monitoring well and piezometer were measured to the nearest 0.01 ***feet*** *using an electronic water level meter.* ***The groundwater elevation data for wells with suspected erroneous readings at a 95% confidence level were evaluated using Dixon's Test for Outliers, as implemented in the ChemStat software. These outliers were then excluded from the analysis. The results of the statistical analysis are presented in Appendix C.*** *Table 3 presents the monthly groundwater elevation at each location*

from January 2022 to December 2023. Monitoring well locations are shown on Figure 21. The groundwater measurements were used in the preparation of the elevated, depressed, and highest observed groundwater condition maps for the hydrostratigraphic unit (surficial aquifer) encountered in the vicinity of Cell 9. A discussion of the groundwater elevations and flow is presented in Section 4.4.3."

Table 3 and Figures 9 to 11 and 15 have also been updated to incorporate these results. The results of the statistical analysis have been added to the report as Appendix C.7.

9. Figures 9, 10, 11, 15 and 16 must include a definition of all depicted symbols on the legend. Some of the symbols not depicted and defined in the legend are:

    a. A light grey/black line with white circles and a black dotted outline

    b. A light grey/black line with X's within boxes and dotted line

    c. A light grey polygon

    Figures 9, 10, 11, 15, and 16 have been updated to remove all symbols that are not on the legend.

10. Figure 17 Proposed Final Grades Plan depicts the top deck slope as 20.0:1. However, this is 5 percent, which greater than the minimum cover slope of 4 percent required by COMAR. To avoid confusion to the citizens who will have access to the repository, it is advised to revise the final grade slope to be shown in percentage rather than in ratio.

    Figure 17 has been modified to show the final grade slope as a percentage rather than as a ratio.

11. The Phase II report for the vertical expansion omits a key study conducted at the Millersville landfill—the Nature and Extent Study and the ongoing Assessment of Measures (2010 to 2012). It is important to include both the progress made and the remaining tasks as part of the investigation and monitoring. Additionally, the county proposed Monitoring Natural Attenuation (MNA), but MDE/SWP did not approve it. This critical information must be incorporated into Section 3.

    Section 3.2.2.3, titled Groundwater Evaluations, was added to the Phase II report. This section describes both the ACM and the subsequent study by SCS evaluating the detection of VOCs near the southern boundary of MLFRRF. Section 3.2.2.3 now reads:

    Multiple historical studies of groundwater quality have been conducted at the site since 1992, as summarized in the Assessment of Corrective Measures (ACM) for the Millersville Landfill and Resource Recovery Facility, prepared by ERM in October 2010 and updated in a May 2012 draft addendum. The ACM summarized the numerous groundwater investigations and evaluations available for the site, the existing engineering and institutional controls and groundwater monitoring network at the site, the environmental setting and hydrogeologic model, and groundwater data. Given the observed contamination in Sand I and Sand II within the northern half of Millersville Landfill and along its eastern boundary, which was attributed to the existing Cells 1 through 7, the ACM then proceeded to present a risk assessment, a fate and transport model, an assessment of corrective measures alternatives, and a recommendation for implementation of monitored natural attenuation (MNA) as a selected corrective measure.

Following the ACM, a study (SCS 2017) was performed in the vicinity of Cell 9 focused on detections of VOCs near the southern boundary of MLFRRF. SCS installed new groundwater monitoring wells in the vicinity of Cell 9 and collected groundwater readings from these wells. These data were then used together with the historical data to evaluate groundwater flow, identify potential human receptors, delineate the extent of the VOCs, and investigate potential sources of the VOCs. The report concluded that Cell 8 was likely not the source of the VOC contamination; rather, the VOCs likely originated from legacy land uses from decades prior, including a former underground storage tank and septic leach field, a hazardous dry cleaning waste dumping site along Dicus Mill Road, unmarked dumping areas near the northwest corner of Cell 9, Freon from the citizens' drop-off area, and a former maintenance shop. During the period evaluated in this report, Cell 9 was not yet accepting waste.

On November 18, 2024, MDE sent a letter to Millersville Landfill requesting an update to the ACM (ERM 2012), which had last been discussed by representatives of Anne Arundel County and MDE in a meeting on September 25, 2014. In response, SCS prepared a report comparing the current groundwater quality to the historical groundwater quality presented in the ACM and evaluating the progress of the MNA to date (SCS 2025). This report noted that there is overall improvement in the extent and nature of the affected groundwater and mass reduction in the northern half of Millersville Landfill and along its eastern boundary, as evident by the reduction in the size of the plume and decreasing trends of the contamination and associated parent and daughter compounds. Along the southern boundary, the report noted that since VOC concentrations are generally improving, VOC concentrations remain below the groundwater protection standards (GWPS), and potential receptor pathways are monitored and controlled, no further investigation is required under 40 CFR Part 258 unless VOC concentrations exceed the GWPS. Overall, the report concluded that based on the current extent of the contamination, data evaluation, receptor survey, and other aquifer conditions, MNA remains the proposed selected remedy for the VOC-affected groundwater. The report was submitted to MDE on April 2, 2025, and is currently under review.

No historical groundwater evaluation at the site has noted GWPS exceedances in the wells along the southern boundary or in the vicinity of Cell 9 and the historical groundwater contamination at the site is not related to the Cell 9 disposal area or the proposed Cell 9 vertical expansion.

12. Attached herewith is a citizen's comment received on Dec 27, 2024. Please respond to the commentator directly and forward a copy of your response to us. Your response should address the following concerns:

    a. Incorporating the impacts of climate change in the proposed designs.

    b. Air quality outside the working face in relation to aerosolized contaminants at the landfill and nearby properties.

    c. Fire suppression and sound (noise) pollution.

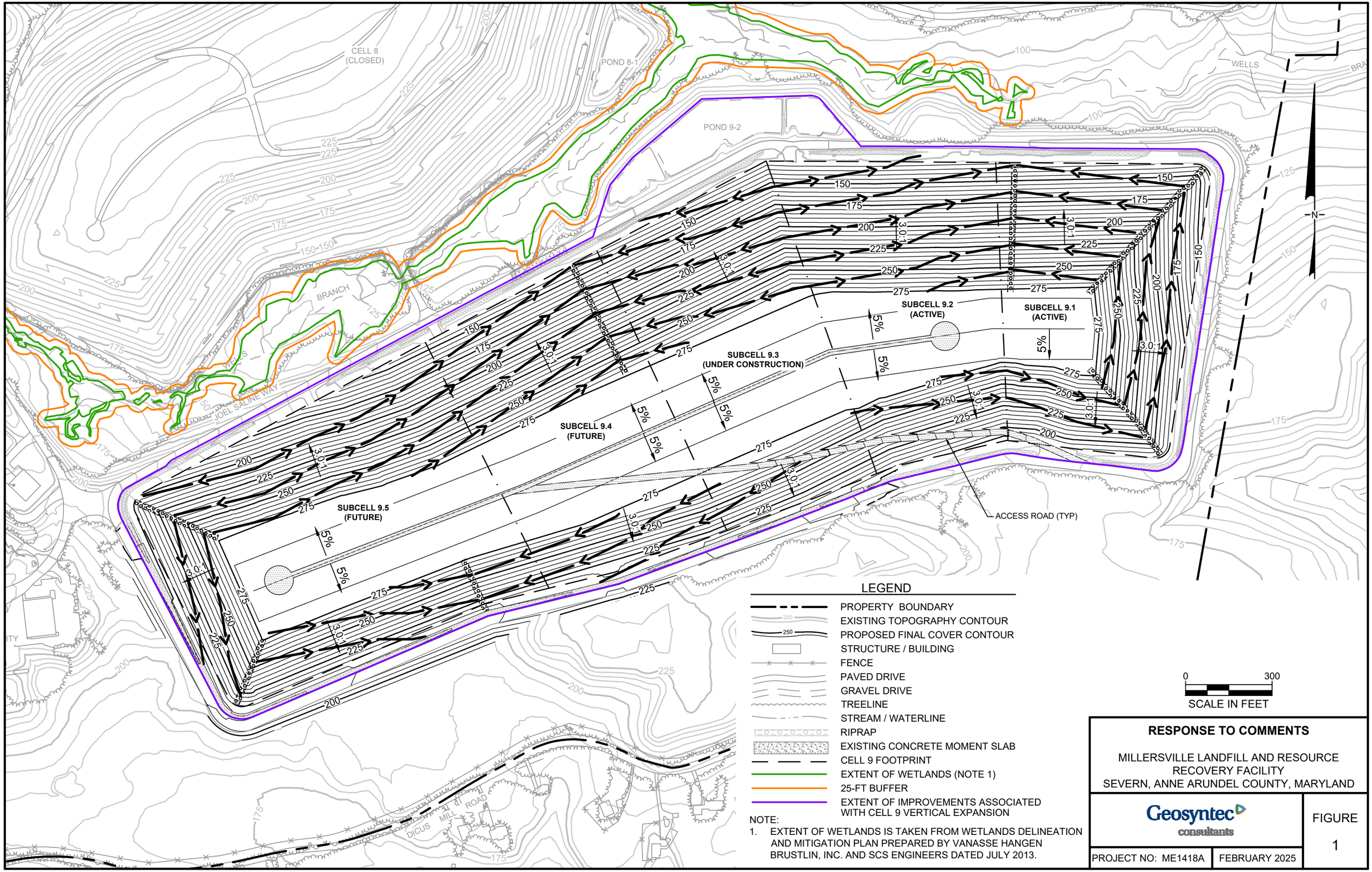
On March 4, 2025, Geosyntec Consultants submitted a response to the citizen's comments. Anne Arundel County shared this response with the citizen on April 9, 2025. The correspondence is attached.

13. Please contact Amanda Sigillito of the Department's Nontidal Wetlands & Waterways Program at (410) 537-3766, if the project will impact nontidal wetlands, the nontidal wetland buffer or waterways, including the 100-foot nontidal buffer. The property owner will need to submit a Joint Federal/State Application for the alteration of any Floodplain, Waterway, Tidal or Nontidal Wetlands. Prior to applying for the application it is recommended to schedule a pre-application meeting with this provided link:
https://mde.maryland.gov/programs/water/WetlandsandWaterways/Pages/PreApplicationIntroduction.aspx

Based on MDE guidance[1]: "a nontidal wetlands permit is needed for disturbance within a 25-foot buffer of a non-tidal wetland, which can be expanded to 100 feet for steep slopes, highly erodible soils, or nontidal wetlands of special state concern. All nontidal wetland sites with 100-foot buffers have been designated by regulation and are mapped on the nontidal wetlands guidance maps." Based on the Maryland Wetlands (Special State Concern) GIS maps[2], there are no nontidal wetlands of special state concern adjacent to Cell 9, and as such, a 25-foot buffer is appropriate to consider for Wells Branch (also known as the unnamed Severn Run tributary). The attached Figure 1 shows the existing wetlands and 25-ft buffer, as delineated by Vanasse Hangen Brustlin, Inc., on May 12, 2012, and November 8 and 9, 2012, and as confirmed by the US Army Corps of Engineers on April 23, 2013 (as provided in Appendix A of the Phase II report). No work is proposed as part of the Cell 9 expansion within this 25-foot buffer, as no work is proposed outside the previous Cell 9 limit of disturbance.

1 https://mde.maryland.gov/programs/Water/WetlandsandWaterways/DocumentsandInformation/Documents/www.mde.state.md.us/assets/document/WetlandsWaterways/development.pdf

2 https://data.imap.maryland.gov/datasets/5c2fe45a02ec400ea62d57f366ae12db_4/explore?location=39.094697%2C-76.653837%2C14.82



LEGEND

- PROPERTY BOUNDARY
- EXISTING TOPOGRAPHY CONTOUR
- PROPOSED FINAL COVER CONTOUR
- STRUCTURE / BUILDING
- FENCE
- PAVED DRIVE
- GRAVEL DRIVE
- TREELINE
- STREAM / WATERLINE
- RIPRAP
- EXISTING CONCRETE MOMENT SLAB
- CELL 9 FOOTPRINT
- EXTENT OF WETLANDS (NOTE 1)
- 25-FT BUFFER
- EXTENT OF IMPROVEMENTS ASSOCIATED WITH CELL 9 VERTICAL EXPANSION

NOTE:
1. EXTENT OF WETLANDS IS TAKEN FROM WETLANDS DELINEATION AND MITIGATION PLAN PREPARED BY VANASSE HANGEN BRUSTLIN, INC. AND SCS ENGINEERS DATED JULY 2013.

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SCALE IN FEET

RESPONSE TO COMMENTS

MILLERSVILLE LANDFILL AND RESOURCE RECOVERY FACILITY
SEVERN, ANNE ARUNDEL COUNTY, MARYLAND

Geosyntec consultants

PROJECT NO: ME1418A | FEBRUARY 2025

FIGURE 1

David C. Moncrief, P.E.
Bureau of Engineering
2662 Riva Road
Annapolis, MD 21401
410-222-7543
Pwmonc00@aacounty.org
www.dpwandyou.com

April 9, 2025

Mr. Robert McKay
1367 Dicus Mill Rd
Severn, MD 21144
robbiemckay@yahoo.com

RE: Review and Comment on Cell 9 Vertical Expansion Application for Permit Modification

Dear Mr. McKay:

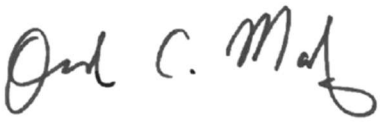
Thank you for your continued interest and comments with regard to the Cell 9 Vertical Expansion Application for Permit Modification. In response to your letter transmitted December 27, 2024 and follow up email on January 20, 2025 please find enclosed a response prepared by the County's Consultant (Geosyntec). Your comments were incorporated into a list of comments that MDE compiled to the County in response to the draft Phase II report and will remain on record with MDE along with this response.

As noted in our previous email correspondence, many of your concerns and comments as they relate to the operation and permit compliance will be addressed more appropriately as part of the Phase III report. We encourage you to re-submit your comments and concerns if still warranted along with any additional observations as the permit process progresses. There is an official Public Comment period, which is Phase V of the MDE Solid Waste permitting process for which you will be notified of via mail during Phase IV of the permitting process. We will also keep you informed when the Phase II final report is posted and the draft Phase III submission is made to MDE, so you may provide input as the permit process progresses.

The County has engaged a consultant traffic engineer to perform a stop warrant analysis for the intersection of Burns Crossing Rd. and Dicus Mill Rd. in response to your comments at the MDE Phase I Preliminary Information meeting. The results of this study have not been finalized yet, but when a determination is made regarding whether stop signs will be installed at the intersection, I will let you know.

Please feel free to reach out to me at any time via email or by phone at 443-618-5676.

Sincerely,



David C. Moncrief, P.E.
Program Manager, Engineering

DM:
Enclosure

March 4, 2025

Mr. David Moncrief
Senior Project Manager, Bureau of Engineering
Anne Arundel County Capital Projects
2525 Riva Road, Suite 120
Annapolis, MD 21401

Subject: Response to Citizen's Comments: Phase II Report
Millersville Landfill and Resource Recovery Facility
Severn, Maryland

Dear Mr. Moncrief:

Geosyntec Consultants (Geosyntec) has prepared this letter in response to comments received from Mr. Robert McKay, 1367 Dicus Mill Road, on 27 December 2024 (copy enclosed). Mr. McKay's comments pertain to his review of the Phase II Geology and Hydrologic Report for the proposed vertical expansion of Cell 9 at Millersville Landfill and Resource Recovery Facility located at 389 Burns Crossing Road in Severn, Maryland.

The Phase II report addresses the soils, geology, meteorology, and hydrogeology of the site. The detailed design of the Cell 9 vertical expansion will include an update to the facility's current Operations Plan and will address the concerns Mr. McKay touched on, including: air quality, fire suppression and noise pollution. This information will be submitted as part of the subsequent Phase III report, following MDE's final determination on the Phase II report. A short response to Mr. McKay's concerns is provided herein; if his concerns are still in place following the submission and review of the Phase III report, please ask Mr. McKay to re-submit his comments at that point and they will be addressed in further detail.

The design criteria used for municipal waste landfill development are contained in federal, state, and local laws and regulations. These design criteria are amended or updated periodically by the federal, state or local governments to address new factors, such as the effects of climate change. For example, current regulations require critical components of the landfill to be designed to safely accommodate the 100-year storm (i.e., a storm that has a 1 percent likelihood of occurring each year based on historical rainfall data). When Cell 9 is closed or otherwise modified in the future, the stormwater management system will be re-evaluated based on the laws and regulations that are applicable at that time.

Similarly, with regards to air quality, the landfill is in compliance with all applicable laws, regulations and permits, including a robust monitoring and reporting program as part of both state and federal requirements. These laws have been strengthened since 2020 to protect against greenhouse gas emissions, and Anne Arundel County remains in compliance with all the new requirements. Long-standing operational controls to address air quality include placing 6 inches of soil over the active waste face daily (as required by the operating permit and state regulations), using a water truck to minimize dust and particulates, routine cleaning/sweeping of on-site access roads, performing surface emissions monitoring on all landfill units (both operating and closed), and actively maintaining the landfill gas management system, as well as the ability to reject loads that have strange or unusual odors. The County also has a mature diversion program,

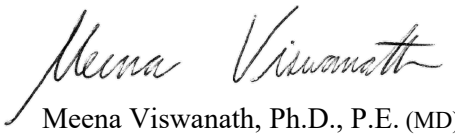
which reduces the amount of organics (which are a source of methane) disposed in the landfill. These controls are described in the Operations Plan, which will be included in the Phase III report.

The risk of fires at the landfill are reduced by compacting the waste within the landfill, which reduces the availability of oxygen in the landfill, the placement of soil cover over the compacted waste, the ability to reject waste loads placarded as flammable, and active management of the landfill gas system to remove methane. The Operations Plan also lists specific procedures if a waste fire, vehicle fire, structure fire, or field/brush fire occurs at the landfill facility. The Anne Arundel County Fire Department is the primary contact for containing the fire. No changes in procedure or waste acceptance criteria that could increase the risk of fire are proposed as part of this application.

Finally, on-site equipment and waste carrying vehicles and haulers are required to maintain mufflers, exhaust systems, and manufacturer-installed noise suppression devices as appropriate. Noise levels generated by the landfill operation and its customers are generally expected to remain within the background limits that already exist in the area and will continue to conform to applicable regulations. No change to daily or annual waste acceptance volumes or operating hours are proposed that would increase noise for the surrounding community.

If you would like to discuss any of the content of this letter, please do not hesitate to contact the undersigned at 410.910.7695 or mviswanath@geosyntec.com.

Sincerely,



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