January 15, 2025

Stephen J. Krajcsik
Solid Waste Operations Administrator
Anne Arundel County Department of Public Works
389 Burns Crossing Road
Severn, Maryland 21144

Dear Stephen J. Krajcsik:

On October 3, 2024, the Maryland Department of the Environment (MDE), Solid Waste Program (SWP) received the Phase II Geology and Hydrology Report (Phase II Report) entitled "Phase II Report, Cell 9 Vertical Expansion, Application for Permit Modification", for the proposed Cell 9 vertical expansion of the Millersville Municipal Landfill and Resource Recovery Facility, located at 389 Burns Crossing Road, Severn, Anne Arundel County, Maryland. The Phase II Report was prepared and submitted on your behalf by Geosyntec Consultants.

The following comments are presented based on the review of the available information. The Phase II Report will not be considered complete until the following comments are addressed and submitted to us for review and approval:

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

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 show 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.

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.

4. Page 16, Section 4.4.4, Groundwater Quality, comprises a 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 with a comparison to the historical groundwater quality evaluation. Please include a discussion to compare the current groundwater quality evaluation with the historical groundwater quality around the proposed Cell 9 vertical expansion.

5. Page 21, Section 4.5, Potential Contamination of State Waters, references a 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.

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 the 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 continued contamination of the aquifers.

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.

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, and results demonstrate that they are outlier. 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.

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

10. Figure 17 Proposed Final Grades Plan depicts the top deck slope as 20.0:1. This is 5 percent, which is greater than the minimum cover slope of 4 percent required by the Code of Maryland Regulation. 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.

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.

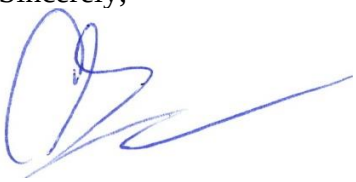
12. Attached herewith is a citizen's comment received on Dec. 27, 2024. Please respond to the commentator directly and forward a copy of your response to us. Your response should address the following concerns:

    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.

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

For document control purposes, your application has been assigned the following control number: **2023-WMF-0240A**. When contacting us regarding your application, please include the referenced document control number. If you have any questions in this matter, please contact Abigail Brodsky, at (410) 537-3315 or abigail.brodsky@maryland.gov.

Sincerely,



Andrew Grenzer, Chief
Solid Waste Operations Division

Enclosure

cc: Thomas Ramsey, P.E., Senior Principal, Geosyntec Consultants
Meena Viswanath, P.E., Senior Engineer, Geosyntec Consultants
Stephanie Cobb-Williams, Acting Director, Land and Materials Administration (LMA)
Brian Coblentz, Chief, Compliance Division, SWP, LMA
Samuel Ogbogu, Section Head, C&M, SWP, LMA

Citizen's Review and Comment on
Cell 9 Vertical Expansion
Application For Permit Modification
MDE Refuse Disposal Permit 2022-WMF-0240
Millersville Municipal Landfill And Resource
Recovery Facility
389 Burns Crossing Road
Severn, Maryland

To Whom It May Concern,

I have reviewed the Application for Permit Modification. It appears to make the case that such a modification is a simple adjustment, like adding an extra layer or two to a cake. When viewed from a more generalist point of view it is obvious that this is not true.

The application relies heavily on 1990s studies (which were state-of-the-art at the time). Much time has passed since the MLFs future was laid out. Some adjustments in running the facility have been made such as using the Landfill Gas Collection System to generate electricity, rather than simply flaring the gas. Other proposals are aimed at cost savings and ways to increase the tonnage of municipal waste that can be accommodated.

I do not see the incorporation of Climate Change in the proposed designs. By the end of Cell-9's practical lifespan, the climate at the site will reflect conditions that are current at Oil City, Louisiana today. (Assuming that climate change does not accelerate in the future). Both rain and drought conditions for Maryland in the near future and beyond will both increase. The plan submitted does not address this vital fact.

While the face is active, it has an enormous effect on air quality both on the landfill property and additionally/potentially the surrounding properties. Unlike leachate production which is now controlled by geomembranes and and pumping systems, aerosols

produced on the working face are allowed free access to the ambient air. This means aerosolized contamination is free to leave the working face. What happens on the landfill does not stay on the landfill. VOCs, NOx, PFASs, Fine Particulates and Carcinogens (such as formaldehyde), etc. are released to the air to be spread to the neighborhoods surrounding the landfill and far beyond by prevailing winds. The working face is a generator of biological contamination as well. The plan to increase the height of Cell-9 will expose contaminated air (dust, gases, fungal and microbial) to the greater prevailing breezes at higher elevations.

I find it concerning that the working face is not monitored real-time for these hazards. I did not see any plan to control these hazardous airborne contaminants. No mention is made of the Health Department implementing a safety plan for the workers and for those in the surrounding community.

Another real danger is fire suppression. In the event that a fire develops on/in the cells, it will result in toxic fumes being release by a dangerous mix of highly flammable gases and materials that will result in dangerous pollution being released to the air. There is no mention of a plan to suppress fires with urgency. Special training for firefighter/first responders who would be called upon to safeguard the community is not mentioned.

Another impact on the surrounding community is sound pollution. This impacts both human and animal neighbors. Portable sound suppression walls (often used for highway projects) are available. Loud industrial sounds have been proven to affect mental health.

Until these concerns are addressed, I would ask the Maryland Department of the Environment to postpone a final determination. In addition, it would behoove the state if all landfill operations in Maryland are reviewed on the basis of the above points. Fixing things before it all goes wrong is much cheaper than disaster remediation.

Best regards,

Robert McKay
1367 Dicus Mill Rd
Severn, MD 21144

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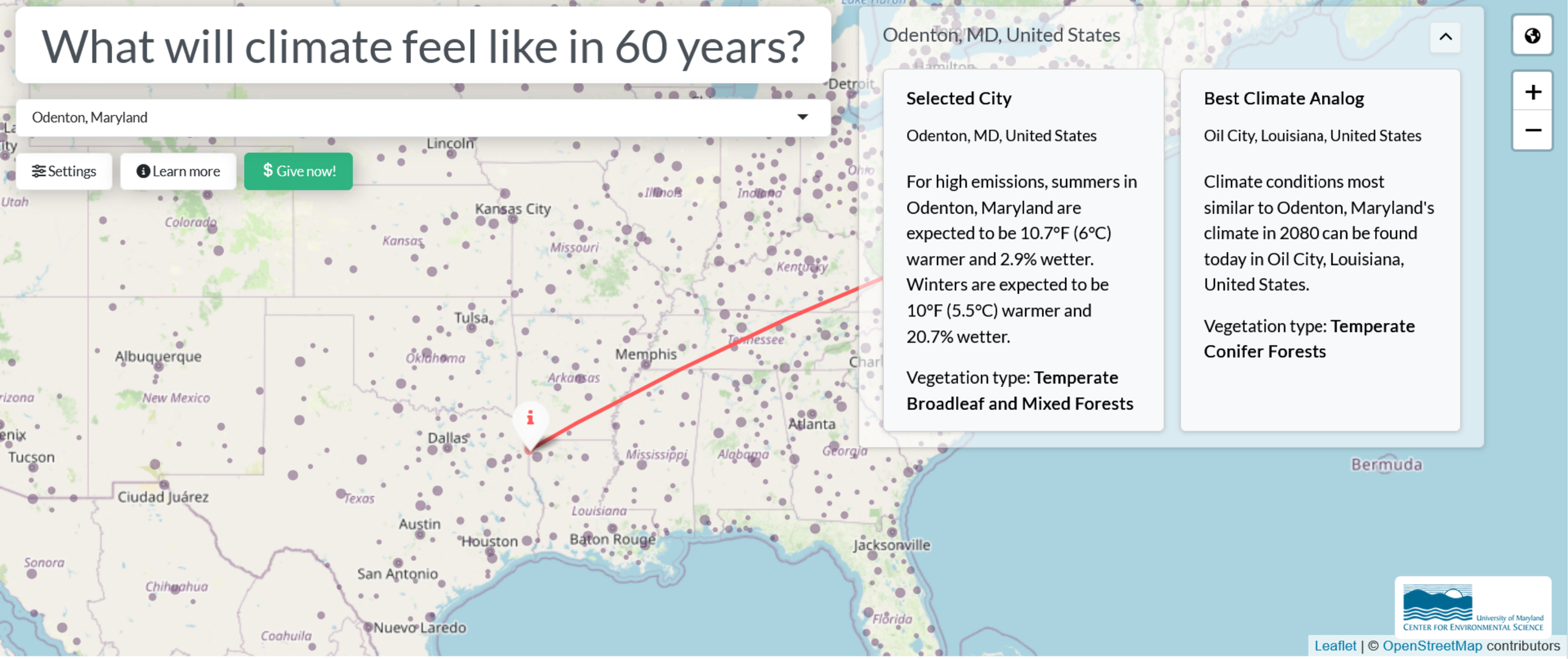
What will climate feel like in 60 years?
Odenton, Maryland
Settings
Learn more
$ Give now!
Odenton, MD, United States
Selected City
Odenton, MD, United States
For high emissions, summers in Odenton, Maryland are expected to be 10.7°F (6°C) warmer and 2.9% wetter. Winters are expected to be 10°F (5.5°C) warmer and 20.7% wetter.
Vegetation type: Temperate Broadleaf and Mixed Forests
Best Climate Analog
Oil City, Louisiana, United States
Climate conditions most similar to Odenton, Maryland's climate in 2080 can be found today in Oil City, Louisiana, United States.
Vegetation type: Temperate Conifer Forests
Detroit
Lincoln
Kansas City
Tulsa
Albuquerque
Memphis
Dallas
Atlanta
Tucson
Ciudad Juárez
Austin
Houston
Baton Rouge
Jacksonville
San Antonio
Nuevo Laredo
Bermuda
Utah
Colorado
Kansas
Missouri
Illinois
Indiana
Ohio
Kentucky
Tennessee
Oklahoma
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