



March 1, 2023

Mr. Michael Smith
Land Quality Bureau
Iowa Department of Natural Resources
Wallace State Office Building
502 East 9th Street
Des Moines, IA 50319

**RE: Metro Park West – Boone and Greene County Municipal Solid Waste Landfill Units
Permit No. #08-SDP-03-84
Response to Comments on 2022 Annual Water Quality Report (Document No. 105608)**

Dear Mr. Smith,

On behalf of Metro Waste Authority (MWA), HDR Engineering, Inc. (HDR) has prepared this letter to respond to the Iowa Department of Natural Resources (IDNR) comments (provided to MWA on February 13, 2023), pertaining to the 2022 Annual Water Quality Report (AWQR) for the Metro Park West (MPW) municipal solid waste landfill (MSWLF). This response acknowledges comments listed in the response letter and provides responses on behalf of MWA. Please see the responses in bold to the comments in italics as follows:

Sampling Summary

1. *Background monitoring points are MW-5AR (Boone County MSWLF Unit), and MW-6A and MW-28 (Greene County MSWLF Unit).*

Response: As indicated in HDR's letter dated October 18, 2022 (Document No. 104345), a request was made to merge the Boone County MSWLF Unit and Greene County MSWLF Unit into one monitoring network. The monitoring points MW-5AR, MW-6A, and MW-28 were proposed as background monitoring points for the merged network. The proposed monitoring network was approved and noted in the revised permit dated October 19, 2022 (Document No. 104360).

2. *Detection monitoring points are MW-1, MW-2AR, MW-9B, MW-12, MW-16, and MW-26. In addition, the permit monitors the Raccoon River twice per year for arsenic.*

Response: As indicated in HDR's letter dated October 18, 2022 (Document No. 104345), a request was made to merge the Boone County MSWLF Unit and Greene County MSWLF Unit into one monitoring network. The monitoring points proposed for downgradient monitoring and their respective monitoring program includes the following:

Monitoring Point	Current Monitoring Program
MW-1	Assessment
MW-2AR	Pre-Corrective Action
MW-9B	Assessment
MW-12	Assessment
MW-16	Detection
MW-26	Delineation Well – Water level only



The proposed monitoring network was approved and noted in the revised permit dated October 19, 2022 (Document No. 104360).

Per a letter dated March 16, 2022 (Document No. 102550), IDNR indicated the permit holder shall continue to perform semi-annual sampling for levels of total arsenic from sampling locations MPWRAC001, MPWRAC002, MPWRAC003, and MPWRAC004 in the Raccoon River.

3. *Some of the sampling forms indicate changes to pH levels when comparing the spring and fall sampling results. Please review and respond.*

Response: Upon review of the 2022 sampling events' field forms and other historical field forms, there was a noticeable increase in pH values measured during the fall 2022 sampling event at monitoring wells MW-1, MW-2AR, MW-6A, and MW-12. It appears the pH values measured at these monitoring wells during the fall 2022 sampling event are due to the multiparameter pH sensor either failing or falling out of calibration and is not a result of changing groundwater quality at the site. Monitoring wells MW-1, MW-2AR, MW-6A, and MW-12 include both background (upgradient) and downgradient wells relative to the landfill. Since these elevated values occurred at both upgradient and downgradient locations, it would not be indicative of a release or groundwater change caused by the landfill.

During the fall 2022 sampling event, two individuals were conducting groundwater sampling with each having their own multiparameter unit. One multiparameter unit was used at monitoring wells MW-1, MW-2AR, MW-6A, and MW-12 while the other multiparameter unit was used at monitoring wells MW-9B, MW-16, and MW-28. During the fall 2022 sampling event, monitoring wells MW-9B, MW-16, and MW-28 had pH values that were similar to historical values measured at these wells. Thus, it appears the multiparameter unit used at monitoring wells MW-1, MW-2AR, MW-6A, and MW-12 was providing inaccurate readings for pH.

Though the pH readings appear anomalous, a representative groundwater sample appears to have been collected from monitoring wells MW-1, MW-2AR, MW-6A, and MW-12. Low-flow parameter stabilization criteria was still being implemented for pH and other monitored parameters. When reviewing the conductivity parameter data, values for the 2022 fall sampling event were comparable with historical values at these monitoring wells suggesting consistency of indicator parameter levels with previous events.

For future sampling events, field personnel will be directed to review historical parameter stabilization results and understand potential triggers that may require bump testing for confirmation or recalibration of field equipment.



4. *Monitoring well MW-6A has historically had “J-flagged” detection of volatile organic compounds. The DNR recommends checking for the presence of methane in the well and if present consider installing another background well. Landfill gas may be the cause of the detections.*

Response: MWA will conduct methane monitoring at monitoring well MW-6A during the quarterly methane monitoring events in 2023. If methane is detected in monitoring well MW-6A above the methane monitoring equipment’s gas accuracy, the background monitoring wells for the landfill will be reevaluated to determine if existing wells will be sufficient for background monitoring if MW-6A is removed from the background monitoring program or if another background monitoring well needs to be added to the network. Since the merging of the Boone County MSWLF Unit and Greene County MSWLF Unit monitoring networks, background monitoring wells MW-5AR and MW-6A both monitor groundwater in glacial till sediments.

It should be noted that “J-flagged” detections of bromomethane and chloromethane in the November 15, 2022, groundwater sample from MW-6A could be the result of laboratory analysis error. Chloromethane was detected as a “J-flagged” concentration in the laboratory’s method blank that was included in the same analysis batch as MW-6A. Bromomethane and chloromethane were also detected as “J-flagged” concentrations in other method blanks associated with the November 2022 analytical results.

5. *In future reports please provide a map indicating the location of the samples from the Raccoon River.*

Response: Surface water sampling locations in Raccoon River will be depicted on site maps and included in future reports.

This response is provided as an electronic copy. Hard copies will be furnished to IDNR upon request. If there are any questions regarding this submittal, please do not hesitate to contact Richard Wilson at (402) 392-6714.

Sincerely,
HDR Engineering, Inc.

Richard Wilson
Environmental Project Manager (Solid Waste)

Megan Seymour, P.E.
Environmental Engineer

cc: Mr. Art Kern, Metro Waste Authority
Mr. Brian Wambold, Metro Waste Authority