



November 13, 2024

Mr. Michael B. "Mick" Leat
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321

Re: City of Iowa City Sanitary Landfill
Permit No. 52-SDP-01-72P
Response to Department Comment Letter (dated September 3, 2024)
2023 Annual Water Quality Report (doc #109369)

Dear Mr. Leat:

HDR Engineering, Inc. (HDR), on behalf of the City of Iowa City (CIC), is submitting the following responses to the Iowa Department of Natural Resources (DNR) Comment Letter dated September 3, 2024, regarding the above referenced document. This response letter is arranged in a comment and response format, with the original comment from DNR first and the response to each individual comment, provided immediately below.

DNR Comment 1:

Your request to discontinue sulfide analysis at MW-16A, MW-18A, and MW-19A is approved.

Response to Comment 1:

CIC acknowledges DNR's comment and would note the request in the 2023 Annual Water Quality Report (AWQR) to discontinue semi-annual sampling/analysis of sulfide was for monitoring wells MW-216A, MW-218A, and MW-219A. CIC assumes DNR was intending to reference monitoring wells MW-216A, MW-218A, and MW-219A in the September 3, 2024, Comment Letter. Based on this assumption, CIC will discontinue sulfide analysis during future monitoring events at monitoring wells MW-216A, MW-218A, and MW-219A.

DNR Comment 2:

DNR believes that MW-18A-07 should be re-designated in the hydrologic monitoring system plan as the attenuation zone source well for the chlorinated volatile organic compound (CVOC) release in that area of the site for the following reasons –

- The concentrations of tetrachloroethene, trichloroethene, and vinyl chloride at MW-18A-07 are the highest on site and consistently above the corresponding groundwater protection standards;
- Those concentrations have also been increasing in recent years, which is indicative of a persistent source of CVOCs near MW-18A-07;
- Those CVOC concentrations at this well are consistently greater than the currently-designated source well for that area MW-18AR, which indicates that it is closer to the actual CVOC source within the landfill and therefore a better candidate to characterize and track this source.



We would appreciate your commentary on this likely modification to your corrective action monitoring program. Additionally, please explain why benzene, tetrachloroethene, trichloroethene, and vinyl chloride concentrations at MW-18A-07 are not shown on the plume delineation maps.

Response to Comment 2:

CIC acknowledges DNR's comment and would concur with establishing monitoring well MW-18A-07 as an attenuation zone source area well in the hydrologic monitoring system plan instead of its current designation as a bracketing/delineation monitoring well as established by the Corrective Action Monitoring Plan (CAMP) dated August 16, 2021. Historical concentrations of select CVOCs measured in samples collected from monitoring well MW-18A-07 are higher than concentrations measured in the adjacent monitoring well MW-18AR which is currently managed under the assessment monitoring program.

*As depicted on **Figure 1** in the 2023 AWQR, monitoring well MW-18A-07 is closer to the located waste boundary of the FY 73 closed cell than monitoring well MW-18AR. Based on the general groundwater flow interpolated at the site, monitoring well MW-18A-07 would encounter groundwater that had passed the FY 73 closed cell first when compared to monitoring well MW-18AR. Based on this interpretation, monitoring well MW-18A-07 would be closer to the source area which is the unlined, closed cell of FY 73.*

Monitoring well MW-18AR is currently designated as a downgradient point of compliance groundwater monitoring well (A-series monitoring the water table in loess and weathered till) and is not designated as a source area well based on the most recent revised permit (Revised Permit #5 dated January 25, 2024; doc # 108924) and as identified in the CAMP.

Based on this review, CIC and HDR would request that monitoring well MW-18A-07 transition from a bracketing/delineation designation to an attenuation zone source area designation and that monitoring well MW-18AR would continue as a downgradient point of compliance monitoring well. Thus, monitoring well MW-18AR would continue under the existing monitoring and analytical program.

For monitoring well MW-18A-07, the monitoring program and analytical program would be revised to match the current program for attenuation source zone wells. Groundwater samples collected from monitoring well MW-18A-07 are proposed to be analyzed semiannually for the Appendix I constituents and annually for total organic carbon, nitrate, iron, manganese, and sulfate. Evaluation of this monitoring point would be annual trend analyses with the purpose of identifying changes in groundwater quality within the attenuation zones. If DNR concurs with this proposed change, the monitoring and analytical program will be revised for MW-18A-07.

In regards to monitoring well MW-18A-07 concentrations for benzene, tetrachloroethene, trichloroethene, and vinyl chloride not being depicted on plume delineation maps in the 2023 AWQR, CIC and HDR assume this was an inadvertent omission by the previous consulting engineer that drafted the 2023 AWQR. Beginning in July 2024, CIC has contracted with HDR to conduct select engineering and compliance consulting services for the landfill. HDR intends to do a thorough review of the groundwater monitoring, analytical, and reporting program for the facility which could include revision or modification on how concentrations of contaminants of concern are depicted on figures. The upcoming 2024 AWQR will be the initial groundwater monitoring report that HDR will have drafted for the site. Concentrations of contaminants of concern, if applicable, will be depicted on delineation figures for monitoring well MW-18A-07.



DNR Comment 3:

Leachate Control System Performance Reevaluation Report. Please continue to operate the system in accordance with the permit and applicable rules.

Response to Comment 3:

CIC acknowledges DNR's comment and will continue operation of the leachate control system in accordance with the permit and applicable rules.

DNR Comment 4:

Landfill Gas Report. Please continue to operate the system in accordance with the permit and applicable rules.

Response to Comment 4:

CIC acknowledges DNR's comment and will continue gas monitoring in accordance with the permit and applicable rules.

We appreciate your review and acknowledgement of this letter. Please do not hesitate to contact Richard Wilson at (402) 392-6714 with any additional comments or questions you may have as a result of this response letter.

Sincerely,
HDR Engineering, Inc.

Richard Wilson
Environmental Project Manager

Will Nicholson, P.E.
Project Manager

cc: Jennifer Jordan, Iowa City Landfill and Recycling Center
Joe Welter, Iowa City Landfill and Recycling Center