



**REGION 5**  
CHICAGO, IL 60604

June 4, 2024

Mr. OJ Ojinaga  
Project Manager  
GHD  
900 Long Lake Road, Suite 200  
St. Paul, Minnesota 55112

Re: EPA Comments on the 2023 Annual Monitoring Report

Dear Mr. Ojinaga:

The U. S. Environmental Protection Agency (EPA) received your submission of the 2023 Annual Monitoring Report on March 19<sup>th</sup>, 2024. Upon review, EPA has numerous comments that must be addressed in the 2024 Annual Monitoring Report. The attached PDF copy of the 2023 Annual Monitoring Report has EPA's comments embedded within the PDF, but they are also listed below.

**EPA Comments:**

Comment 1 (page 1, PDF page 5) – Remove “Since EW1 has essentially completed its performance goal,”. EW1 either did or did not complete its performance goal, and this is discussed below.

Comment 2 (page 1, PDF page 5) – Produce evidence that EPA approved the abandonment of EW1 or remove the clause “and abandonment”.

Comment 3 (page 2, PDF page 6) – Replace “a downward trend” with "a 30-year downward trend" to improve accuracy. The data gathered in the years since EW1 shutdown have not showed a downward trend of VOC concentrations.

Comment 4 (page 2, PDF page 6) – Use the description of the East Bank and West Bank presented in the ESD published 3/15/24 to improve consistency.

Comment 5 (page 2, PDF page 6) – The RI and subsequent groundwater sampling proved “The river forms a natural hydraulic division of the Site” is not true by showing TCE from the West Bank traveled under the River to CW3. Eliminate this sentence.

Comment 6 (page 2, PDF page 6) – Replace “During the 2023 sampling event” with "Starting XX/XX/2024 and through the sampling event,..." so that it's clear to readers how long groundwater hydrogeology was impacted.

Comment 7 (page 2, PDF page 6) – In future monitoring reports, please add near “This alluvial aquifer” the "sand and gravel deposits" description of the alluvial aquifer so that readers know very few low permeability clay/silt lenses have been identified at the Site that might impact contamination. For example you could replace with

something similar to "The alluvial aquifer consists of sand and gravel with minimal silt or clay lenses and ranges from 0 to 160 feet..."

Comment 8 (page 3, PDF page 7) – replace “not operating.” with "was not operating and had not been operating since XX/XX/2024."

Comment 9 (page 4, PDF page 8) – Replace “Recommended” with "Required..." The pumping rates are required under the CD/SOW to ensure full capture of the groundwater plume.

Comment 10 (page 4, PDF page 8) – Again replace “recommended” with “required”.

Comment 11 (page 5, PDF page 9) – At paragraph 2 of section 4.1, looking at the data, I think the current plume outline doesn't accurately represent the area of contamination. Similarly, it looks like the two areas are not "south of EW1" and "north of EW1". Instead, I would describe them as "south of Bos Creek" and "north of Bos Creek". The groundwater contamination in the landfill does not appear to be traveling north at this point, instead it has traveled past Bos Creek. However, the stable concentrations at R2D raise the question whether soil/sediment/deep groundwater contamination at Bos Creek may be a lingering source of TCE contamination. This same comment is repeated on Figure 4 (PDF page 16).

Comment 12 (page 5, PDF page 9) – Regarding the phrase “in the shallower portion of the aquifer near the source area”, the highest concentrations of TCE in the RI were discovered over 100 feet bgs. What is the explanation for why concentrations in the shallow aquifer are increasing while concentrations in the deep aquifer remain stable? Has groundwater level changed significantly since EW1 shutdown in such a way that TCE source soils are now below the groundwater line and contributing to contamination? In future monitoring reports, include an explanation for why shallow TCE concentrations are increasing while deep TCE concentrations are stable. Cite specific groundwater levels, soil sampling data, or other historical data to support your explanation.

Comment 13 (page 5, PDF page 9) – Regarding W53A and W54 TCE concentrations, the description "fluctuations" is too vague. In future monitoring reports, state whether these fluctuations exhibit an increasing, decreasing, stable, or undetermined trend based on Mann-Kendall statistical analysis of data since EW1 shutdown. The concentrations of TCE at well W54 appear to be increasing, or at least fluctuating in a way that may indicate contaminant movement towards the Wisconsin River. In future monitoring reports, describe the fate and transport of TCE in the shallow aquifer based on hydrogeological studies conducted for the Site's 1989 RI or other report when EW1 was not operational.

Comment 14 (page 5, PDF page 9) – MCL exceedances at C3S occurred, but not reported. Include a sentence somewhere in section 4.1 that mentions that carbon tetrachloride and chloroform were above their respective MCLs at C3S.

Comment 15 (page 6, PDF page 10) – In future monitoring reports, add charts showing historical chlorinated VOC concentrations for all wells on the East Bank and West Bank where contaminants have been detected above their MCLs in at least one of the last three years.

Comment 16 (page 6, PDF page 10) – “East Bank contaminant concentrations continue to fluctuate,” is too vague. In future monitoring reports, state which wells continue to fluctuate and perform Mann-Kendall statistical analysis to determine whether the fluctuations have an increasing, decreasing, stable, or undetermined trend.

Comment 17 (page 7, PDF page 11) – Regarding the first paragraph of section 6, I have a hard time understanding what "...viable to the evaluation..." means. Does no longer viable mean the data is unusable due

to certain conditions? Or do you just mean that the data is not helpful or necessary to evaluate the Site? If the latter, replace with "...no longer provide data that is necessary to evaluate the Site." or something similar. If the former, alter the language to clarify.

Comment 18 (Figure 4, PDF page 16) – Looking at the West Bank TCE data, I think the current plume outline doesn't accurately represent the area of contamination above 5 microgram/L. Also, it looks like the two areas are not "south of EW1" and "north of EW1". Instead, I would describe them as "south of Bos Creek" and "north of Bos Creek". The groundwater contamination in the landfill does not appear to be traveling north at this point. However, the stable concentrations at R2D raise the question whether soil/sediment contamination at Bos Creek may be a lingering source of TCE contamination. This same comment is repeated with similar language in section 4.1 West Bank (PDF page 9). Also, in future monitoring reports, alter the dashed line to accurately represent the reasonable extent of West Bank TCE contamination above 5 micrograms/L. For example, in this monitoring report, one enclosed area reasonably ends immediately south of R4D/EW1 and the other enclosed area beings immediately south of R2D and extends north of W55 (where the dashed line currently reaches northward). This may be different based on next year's groundwater monitoring results.

Comment 19 (Tables, PDF page 20) – In future monitoring reports, include a table that provides the groundwater contaminant concentration data over time for each well. EPA can provide an example if that would be helpful. Also, in future monitoring reports, add to Table 2.2 the depths bgs at which each monitoring well's screen begins and ends.

Comment 20 (Table 3.1, PDF page 24) – Table 3.1 notes several issues or routine maintenance activities that need to be conducted for some wells. In future monitoring reports, bold or highlight the text to indicate issues or conditions that will be repaired/addressed in the future.

Comment 21 (Appendix C, PDF page 111) – As previously mentioned, in future monitoring reports, please include a chart for each well on the East Bank and West Bank where contaminants have been detected above their MCLs in at least one of the last three years.

Please confirm by **July 15<sup>th</sup>, 2024**, that you will address these comments in the 2024 Annual Monitoring Report. If not, state which comments cannot be addressed and why. As always, feel free to reach out to Jeffrey Dewey by phone or email at 312-353-1526 or [dewey.jeffrey@epa.gov](mailto:dewey.jeffrey@epa.gov) respectively with any questions or comments.

Sincerely,

Jeffrey Dewey  
Remedial Project Manager

*cc: all cc recipients via email*  
Steven Kaiser – EPA, ORC  
Matthew Thompson – WDNR  
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