



March 7, 2024

Village of Whitefish Bay
ATTN: Matthew Collins
155 W. Fairmount Avenue
Whitefish Bay, WI 53217
Sent via email only to M.Collins@wfbvillage.gov

Subject: Response to Technical Assistance Request
Village of Whitefish Bay Landfill
5201 W. Good Hope Road, Milwaukee, WI 53223
BRRTS #: 02-41-000254; FID #: 241218670

Dear John Edlebeck:

On September 19, 2023, the Wisconsin Department of Natural Resources (DNR) received the document titled *MPS Greentree Preparatory School Vapor Sampling, Vapor Intrusion Screening South of the School, and Emerging Contaminants Evaluation at the Landfill*, dated September 8, 2023 (Report) for the site identified above. The Report was prepared for the Village of Whitefish Bay (Village) by your environmental consultant, The Sigma Group, Inc. (Sigma) and was submitted with a fee for DNR review and response.

Site Background

The site is currently an approximately 13-acre vacant lot. The Village acquired the property in 1960 and operated the site as a landfill for disposal of incinerator ash and construction debris from approximately 1960 - 1972. Site investigation activities conducted to date have identified chlorinated volatile organic compounds (CVOCs) and petroleum volatile organic compounds (PVOCs) in soil, groundwater, and vapor at the site. The CVOC and PVOC contamination is suspected to be the result of illicit disposal of contaminated material on the landfill site and the adjacent property.

Report Summary

The Report contains information, conclusions, and recommendations related to vapor sampling of the school building located at 6850 N. 53rd St, Milwaukee (school), vapor screening of the residential neighborhood south of W. Green Tree Road, and an evaluation of emerging contaminants at the on-site landfill. The report recommends the following:

- The sub-slab vapor, indoor air, and soil vapor assessment for the school is complete, and additional sampling is not recommended.
- Considering the relatively high water table observed during the spring season and the likely presence of homes with basements, an additional round of soil vapor sampling may be performed at select locations near the northern portion of the residential neighborhood where relatively higher groundwater impacts are expected.
- A second round of groundwater sampling may be performed to confirm the low-level detections of per- and polyfluoroalkyl (PFAS) compounds in groundwater.

DNR Review

Based on the information submitted to date, the DNR provides the following comments:

- The concentration of trichloroethene (TCE) in indoor air at MPS-5 located in the school exceeded the residential vapor action level (VAL) in July 2000. Indoor air sample IA-1 collected near this location in March 2023 did not identify TCE; however, the reporting limit for TCE was above the residential VAL. Based on the previous VAL exceedance, the high reporting limit for the March 2023 sample, and the presence of a dirt floor in this area, the DNR requests additional indoor air sampling near MPS-5/IA-1 to confirm that indoor air concentrations are below VALs.
- The concentration of cis-1,2-dichloroethene (cis-1,2-DCE) in indoor air at MPS-9B located in the school exceeded the residential VAL in December 2020. One additional indoor air sample, IA-2, was collected near this location in March 2023, and cis-1,2-DCE was not detected. Based on the previous VAL exceedance and the presence of a dirt floor in this area, the DNR requests additional indoor air sampling near MPS-9B/IA-2 to confirm that indoor air concentrations are below VALs.
- Based on the concentration of CVOCs in groundwater at monitoring well MPS: P-6 and reduced depth to groundwater within the residential neighborhood, the DNR agrees with the proposal to conduct additional assessment to evaluate the potential vapor intrusion risk in the northern portion of the residential neighborhood. This assessment may include additional soil vapor sampling, additional groundwater sampling, and/or assessment of the depth to groundwater to determine the potential for impacted water to be in contact with floor slabs or basements of the residences. Additionally, consider whether sump pumps in residential basements have the potential to intercept contaminated groundwater.
- The DNR agrees with the proposal to conduct additional groundwater sampling on the landfill property to confirm the previous PFAS results. The DNR requests the collection of PFAS groundwater samples at MW-6, MW-10, MW-11, and a shallow monitoring well located east of MW-11 such as W-MW-4S.

Previous DNR Requests

As a reminder, the following requests were included in the DNR's letter "Review of Site Investigation Completion Report" dated February 24, 2021, and do not appear to have been resolved:

- The degree and extent of shallow CVOC soil contamination within the direct contact zone near borings B6 and B11 does not appear to be fully defined. Specifically, the degree and extent of shallow soil contamination is not defined north of B6 and southwest, south, and southeast of B11. Conduct additional soil sampling to fully define the degree and extent of CVOC soil contamination within the direct contact zone (0-4 feet below ground surface).
- Contamination at the site has been attributed to illegal disposal on the landfill property. Analysis of samples collected during the site investigation has been limited to VOCs. Due to the unknown nature of the source material, the potential exists for other classes of contaminants, including polycyclic aromatic hydrocarbons (PAHs) and metals, to be present at the site as a result of the source material. Conduct additional site investigation to determine the degree and extent of contaminants other than VOCs in all affected media. This additional site investigation should at a minimum include an investigation of PAHs and metals. The need for an investigation of other contaminant classes should be evaluated based on site history and the site scoping requirements of Wis. Admin. Code § NR716.07.

- The site was reportedly graded and covered with a clean fill cap in the 1980s to comply with DNR landfill closure regulations, however documentation of the placement of a cap does not appear to have been submitted to the DNR. Based on the presence of shallow soil contamination and irregular topography, it does not appear that a cap is in place at the property. As requested in the DNR letter “Notice of Noncompliance and Request for Work Plan for Addressing Groundwater Contamination Information,” dated October 28, 2013, the DNR requests that you provide documentation that a cap was constructed on the landfill or conduct a survey of the landfill cover on the entire site. Consider the results of the cap evaluation when evaluating potential remedial actions for the site.

Next Steps

The DNR does not consider the site investigation for the reported contamination to be complete at this time. Provide a work plan to address the above comments within 60 days of the date of this letter. If you would like the DNR to review the work plan, a technical assistance fee will be needed.

We appreciate your efforts to restore the environment at this site. If you have any questions concerning the site or this letter, please contact me, as the DNR Project Manager, at (414) 218-6042, or by email at joseph.martinez@wisconsin.gov.

Sincerely,



Joseph J. Martinez
Hydrogeologist – Southeast Region
Remediation & Redevelopment Program

cc: Mafizul Islam, The Sigma Group, Inc. – mislam@thesigmagroup.com