



May 18, 2021

Ms. Amber Thomas  
Village of Grafton  
675 North Green Bay Road  
Grafton, WI 53024

Subject: Groundwater Monitoring and Progress Report  
Lime Kiln Park and West Plume Area, Green Bay & Falls Roads, Grafton  
BRRTS #: 02-46-549906/02-46-000743  
FID #: 246036780

Dear Ms. Thomas:

The Department of Natural Resources (DNR) received the report, *Groundwater Monitoring and Progress Report* for the Lime Kiln Park and West Plume Area dated February 2021 (Report) from your consultant TRC Environmental Corporation (TRC) with a fee for a written DNR response to your request for Technical Assistance. This work is regulated under Wis. Admin. Code ch. NR700.

### Background

TRC conducted the work described in the Report in response to the DNR's October 17, 2018 and May 1, 2019 requests for vapor intrusion screening pursuant to Wis. Admin. Code § NR 716.07(7) and for a progress report regarding monitored natural attenuation (MNA) at the sites pursuant to Wis. Admin. Code § NR 724.13(3). Previous reports submitted include *Site Investigation and Preliminary Remedial Action Identification*, submitted on March 3, 2017 by AECOM; *2014 Progress Report*, submitted on April 15, 2015 by AECOM, and *Site Investigation and Preliminary Remedial Action Identification*, submitted January 19, 1999 by Earth Tech, Inc.

The Report documents MNA groundwater results and the vapor screening investigation including the advancement of eight temporary wells to collect groundwater samples to screen the Manchester Drive and the Green Bay Road homes for the potential of a vapor intrusion risk. Due to difficulties with the wells not producing sufficient water for sampling, only one sample from (SP-02 on Green Bay Road) was able to be collected and laboratory analyzed.

The DNR reviewed the Report and previous submittals and has determined that the following additional work is needed to complete the site investigation and to justify the proposed groundwater monitoring plan.

### Comprehensive Site Investigation Report

The iso-concentration maps in the Report do not appear accurate. Due to using a value of zero concentration for no sample (NS) locations, the West Plume area does not show up on the iso-concentration maps. Submit a comprehensive site investigation report that is a summary of all available investigation data per Wis. Admin. Code § NR 716.15(4), including the following:

- Use the most recent data available for no sample (NS) locations.

- Include all historic results, including private water supply well data, in the groundwater tables.
- Submit separate iso-concentration maps for water table wells vs. bedrock wells.
- Submit iso-concentration maps with historic data and current data on separate maps so a comparison can be made.
- Submit updated and multiple cross sections on contaminant plume centerlines and on lines perpendicular to plume centerlines.
- Outline and highlight relevant homes and businesses on the maps.
- Include PAL iso-concentration lines on maps.

Provide the Phase I Environmental Assessment Report for 2076 First Avenue, the Milwaukee Sign location. If a Phase I is not available, that information should be collected and used to provide an analysis of the completeness of the site investigation at that location or justification for additional investigation.

### Monitored Natural Attenuation (MNA) Sampling Plan

Your current sampling plan (Table 1 of the Report) for MNA is quarterly sampling of a set of wells in the first quarter, a shorter sub-set of those wells in the third quarter, and a shorter subset in the second and fourth quarters of the year. TRC has proposed to change the plan to sampling the full list of wells annually, in the 3<sup>rd</sup> quarter only. Although the DNR cannot approve your proposed MNA plan prior to receiving the aforementioned comprehensive site investigation report, the DNR has the following preliminary comments:

- The sampling plan does not include plume centerline MNA performance wells for the West Plume and is lacking a perimeter side gradient sentry well on the west side of the contaminant plume. Add PW664GB as a perimeter well if possible. Add back into the program, wells P6B, P5B, and P1 (A-C) as plume centerline MNA performance wells.
- Prior to changing the plan to sampling once annually, the DNR recommends that you conduct sampling semi-annually (twice a year), for a minimum of two years then re-evaluate to determine the appropriateness of annual sampling.
- Compare your MNA sampling plan to EPA's MNA guidance document EPA/600/R-04/027, April 2004 and the DNR MNA guidance document RR669 to assure that your sampling plan will provide adequate data to document natural attenuation is an appropriate remedy for the sites.

### Vapor Screening

The DNR appreciates your recent effort to assess the vapor intrusion risk to nearby homes. The Screen Point (SP) well nearest to the homes on Green Bay Avenue, SP-02, was able to produce water, however, another attempt should be made to install a Wis. Admin. Code ch. NR141 compliant water table well(s) to screen the homes on Manchester Drive. These samples are especially important due to the current knowledge regarding the acute toxicity of TCE to sensitive populations. Also, consider historic results from the private water supply wells in your screening analysis.

Similarly, investigate shallow ground water (wells screened across or near the water table) at the 2076 First Avenue, Milwaukee Sign location, to screen businesses in that area for vapor intrusion risk. The investigation activities conducted in 2017 were not adequate for screening purposes due to the limited number of shallow groundwater samples taken (one) from a temporary well not in compliance with Wis. Admin. Code ch. NR 141. Three of the temporary wells completed at that time were not able to produce water.

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Emerging Contaminants Statement

Per Wis. Admin. Code § NR 716.07 and Wis. Admin. Code § NR 716.09, provide an emerging contaminants evaluation including 1-4 dioxane and per- and polyfluoroalkyl substances (PFAS), as requested in the DNR letter dated August 17, 2020.

Other DNR Comments

The previously submitted *Site Investigation and Preliminary Remedial Action Identification*, March 3, 2017 by AECOM is missing laboratory analytical reports (Appendix E, Laboratory Results is a one-page table in the DNR's copy of the report). Submit these reports.

Schedule

- The DNR requests a site investigation workplan to complete the work described above by July 23, 2021 per Wis. Admin. Code § NR716.09.
- The comprehensive site investigation report must be submitted within 60 days of completing the additional site investigation activities related to the above comments per Wis. Admin. Code § NR 716.15(1). It should include the vapor screening analysis and a fee for DNR review and response.

If you have any questions or concerns regarding this letter, please contact me, the DNR Project Manager, at (920) 893-8523, or by email at [johnm.feeney@wisconsin.gov](mailto:johnm.feeney@wisconsin.gov).

Sincerely,



John Feeney, PG  
Remediation & Redevelopment Program  
Wisconsin Department of Natural Resources

cc: Ms. Alia Enright, TRC  
Mr. Mark Peters, DNR WMM Program