



June 26, 2019

Rachael Snyder-Cochran
Superior Water Light and Power
2915 Hill Ave.
Superior, WI 54880

Subject: Site Investigation Report Review,
Superior Water Light and Power Co., Manufactured Gas Plant
Winter Street and US Highway 53, Superior, Wisconsin
BRRTS ID #: 02-16-275446

Dear Ms. Snyder-Cochran,

In a letter to Superior Water Light and Power (SWL&P) dated December 8, 2017, the Wisconsin Department of Natural Resources (DNR) commented on a Site Investigation Report submitted to the DNR by Summit Envirosolutions, Inc. (Summit) on September 20, 2017. The DNR letter requested evaluation of all data from the site investigation and additional analysis of the historical location of Manufactured Gas Plant (MGP) facilities in relation to current knowledge of the extent of contamination from the SWL&P MGP and gas storage operations. The letter also requested additional geologic cross sections to facilitate estimating the extent of contaminated sediments. Contamination from the SWL&P MGP and gas storage operations is hereafter referred to as "Site" as that term is defined in Wis. Admin. Code § NR700.03(56)).

In response to the DNR letter of December 8, 2017 Foth Infrastructure and Environment, LLC (Foth) prepared and submitted to the DNR, on your behalf, a Site Investigation Report dated March 28, 2019. A review fee, compliant with Wis. Admin. Code ch. NR749 was submitted with the report.

During a meeting between SWL&P, Foth, and the DNR on May 9, 2019 to discuss the Foth Site Investigation Report, several items were identified as needing clarification. The DNR received a letter from SWL&P dated June 3, 2019 clarifying these items.

The DNR has completed a review of the Site Investigation Report and SWL&P's June 3, 2019 letter (collectively the "SIR"). DNR comments to the SIR are provided below:

- The SIR presents hypothesis on potential contributing sources of contamination including an existing above ground storage tank located at a neighboring property and potential contamination from operations at a neighboring coal dock. It is the DNR's belief that currently evidence is not available to support identification of additional responsible parties or potential responsible parties under Wis. Stats. ch. 292 beyond SWL&P.
- The SIR suggests existing utility corridors may be acting as conduits for contaminant transport. The DNR agrees that the existence of sewer and other utilities within an area of contamination

can act as conduits for contaminant transport. Understanding of this potential pathway is needed to determine contaminant fate and transport throughout the Site. Additional assessment of potential migration pathways will be necessary to determine appropriate remedial action along all affected utility corridors.

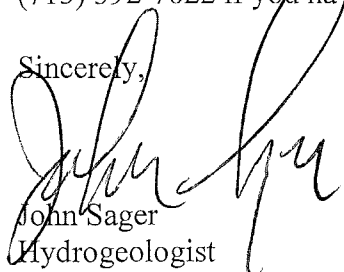
- The March 28, 2019 Site Investigation Report speculates that contamination detected in observations and sampling in the location of soil boring B-31 is not associated with the Site. The June 3, 2019 letter from SWL&P states that contamination found at soil boring B-31 should be included in the Remedial Action Options Report (RAOR) evaluation and Remedial Action Plan (RAP) development due to uncertainty of the source of this contamination. The DNR believes it is likely this contamination is associated with the Site and agrees with SWL&P that this area should be included in the RAOR and RAP. The area of soil boring B-31 may need additional evaluation during selection and design of a remedial action. The DNR will consider evidence of additional sources of contamination if available.
- The SIR expresses concern over the use of Laser Induced Fluorescence (LIF) data as a stand-alone indicator of contamination. In SWL&P's June 3, 2019 letter, LIF borings are compared with nearby soil and groundwater monitoring data to evaluate subsurface contamination in various areas of the Site. Additional soil borings, monitoring wells and sampling are required to compare concentrations of contaminants in soil and groundwater to the LIF data to evaluate various remedial action options. This will be especially important if SWL&P intends to propose a Wis. Admin Code ch. NR720 soil performance standard in areas of the Site where structural impediments limit remedial action options. Other areas of the Site where there were many LIF borings installed and little comparable analytical data available, such as the northwest portion of the Former MGP Building Discharge Area and in the area of boring TG-07, will need additional investigation.
- The DNR concurs with SWL&P that additional delineation of sediment contamination and a geotechnical evaluation is required to select remedial action options and design a RAP.
- In the SIR, benzene, benzo(a)pyrene and naphthalene were used in a Digital Site Model as indicator parameters for Site evaluation. The DNR reminds SWL&P that all discharged hazardous substances in all impacted media associated with the Site are subject Wis. Stats. ch. 292 and the requirements of Wis. Admin. Code chs. NR700 – NR754 and will need to be considered during RAOR and RAP development.
- The SIR Digital Site Model evaluates sediment contamination using a total Polycyclic Aromatic Hydrocarbon (tPAH) concentration of 22.8mg/kg which is the Probable Effect Concentration (PEC) published in the DNR's December 2003 Consensus Based Sediment Quality Guidelines (CBSQG). Utilizing the PEC may not reflect the extent to which sediment remediation is necessary. Wis. Stats. § 292.11(3) requires the restoration of the environment to the extent practicable and minimization of the harmful effects of the discharge. Considering this, the CBSQG Midpoint Effect Concentration (MEC) of 12.2mg/kg for tPAH should be used while considering the feasibility of achieving the Threshold Effect Concentration (TEC) of 1.6mg/kg during RAOR and RAP development.

- Based on the SIR Digital Site Model and conclusions in the SIR, SWL&P is considering active remedial action for soil contamination associated with a direct contact risk only. If a performance standard is selected for remaining soil contamination beyond the depth associated with the direct contact risk then evaluation of remaining contamination and its effect on current and future groundwater quality, human health and the environment will be necessary (Wis. Admin. Code § NR720.08(1)). Leaving significant contamination in place also carries greater risk that additional remedial action will be required in the future if the performance standard fails. The cost of the additional short and long-term monitoring and SWL&P's potential future liability associated with using a performance standard should be evaluated against active remedial action of as much of the contamination as possible. RAOR and RAP requirements are contained in Wis. Admin. Code ch. NR722 and NR724 and any RAOR or RAP submitted to the DNR will be evaluated using requirements of these chapters. Wis. Admin. Code § NR722.07 requires responsible parties to evaluate an appropriate range of remedial action options.
- In the SIR, a request is made of the DNR to provide assurance of no responsibility for future hazardous substance discharges at the Site. Responsibility for hazardous substance discharges is established under Wis. Stats. ch. 292. The DNR does not have the ability to limit responsibility under this statute above and beyond the defined responsibility in statute. If SWL&P encounters a specific situation where responsibility under Wis. Stats. ch. 292 is a concern, the DNR can provide liability clarification under Wis. Stats. § 292.55 if requested. If SWL&P would like to secure liability protection from past releases, Wis. Stats § 292.15 describes the Voluntary Party Remediation and Exemption from Liability (VPLE) process. Please contact me if SWL&P is interested in the VPLE.

Considering the above comments, the DNR believes the Site investigation efforts are sufficient to move forward with the RAOR and RAP development, recognizing that additional data gaps may need to be filled prior to completing a remedial action. Areas of the Site will also need additional soil, sediment and groundwater assessment for selection and design of a remedial action. The extent of additional assessment will be dependent on the remedial action options being evaluated.

The DNR appreciates SWLP's efforts to complete a Site investigation and we look forward to our cooperation in development of a RAP for the Site. Please contact me at john.sager@wisconsin.gov or (715) 392-7822 if you have questions or would like to discuss this letter.

Sincerely,



John Sager
Hydrogeologist
Remediation and Redevelopment Program

C: Mr. Stephen Garbaciak, Foth Infrastructure and Environment, LLC