

From: Rolfes, Sarah <Rolfes.Sarah@epa.gov>
Sent: Friday, May 29, 2020 9:47 AM
To: Dombrowski, Frank J
Cc: Krueger, Sarah E - DNR; staci.goetz@ramboll.com; Brian Hennings (Brian.Hennings@ramboll.com); Prasad, Narendra M; Fitzpatrick, William - DNR; Adrienne Korpela
Subject: RE: Former WPS Green Bay MGP - Pre-Design Investigation Work Plan
Attachments: EPA Comments on Green Bay MGP PDI WP_05.29.20.pdf; Attach2_Figure 8_NAPL Obs and Prop SB locs Rev 1.pdf

Good morning Frank,

Attached please find comments on the PDI Work Plan. Please reach out to me if you have any questions.

Thanks,
Sarah

From: Dombrowski, Frank J <frank.dombrowski@wecenergygroup.com>
Sent: Thursday, March 19, 2020 10:35 AM
To: Rolfes, Sarah <Rolfes.Sarah@epa.gov>
Cc: sarah.krueger@wisconsin.gov; staci.goetz@ramboll.com; Brian Hennings (Brian.Hennings@ramboll.com) <Brian.Hennings@ramboll.com>; Prasad, Narendra M <narendra.prasad@wecenergygroup.com>
Subject: Former WPS Green Bay MGP - Pre-Design Investigation Work Plan

Hi Sarah,

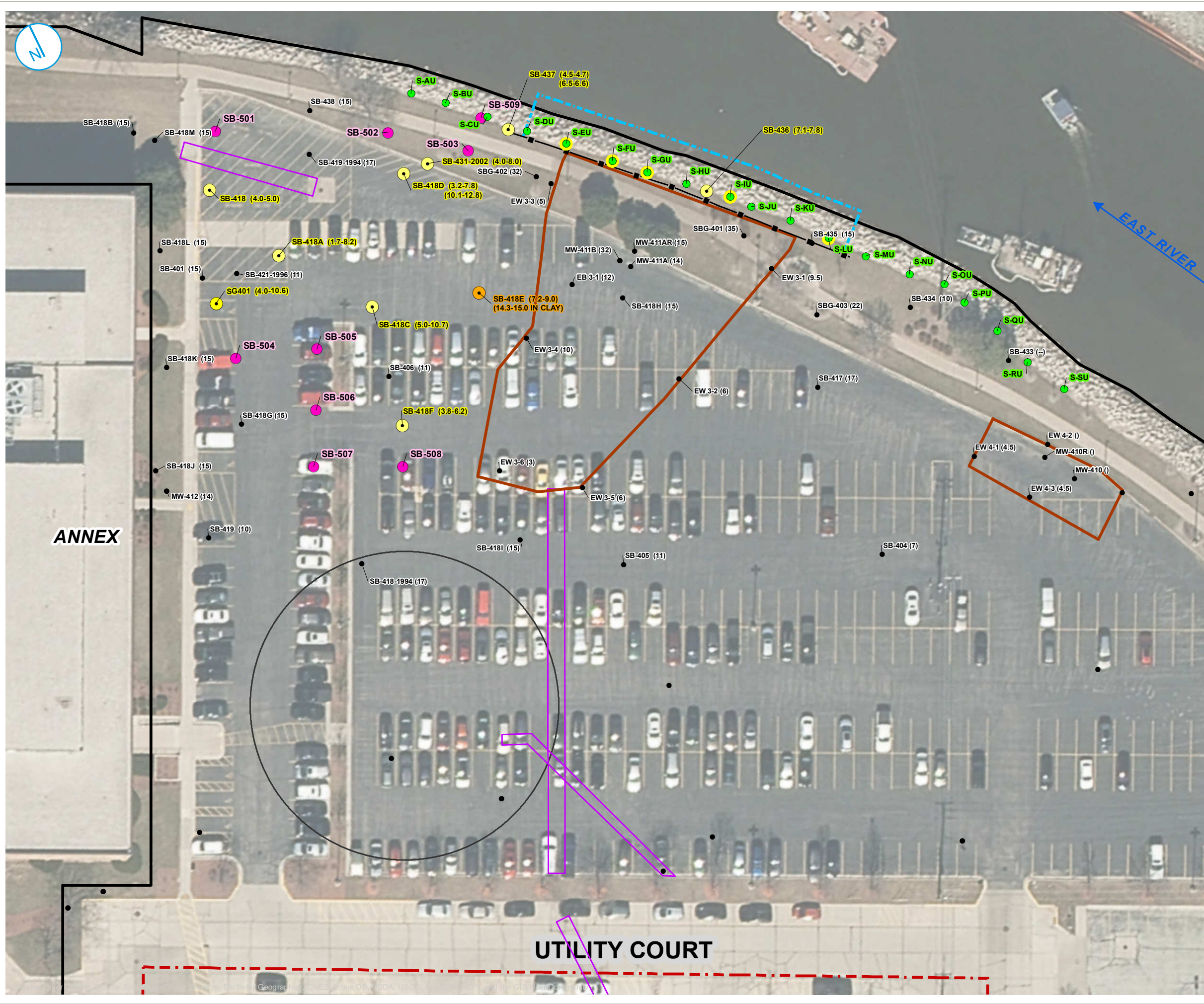
Please find attached the PDI Workplan Rev 0 for the former Green Bay, WI MGP site. We are working on bidding/logistical arrangements for drillers and other subcontractors and will notify you ASAP as to the anticipated field schedule. Please feel free to contact me at your convenience if there are any questions or if additional information may be needed.

Thanks,

Frank Dombrowski
Principal Environmental Consultant

WEC Energy Group - Business Services
Environmental Dept. - Land Quality Group
333 W. Everett St., A231
Milwaukee, WI 53203
Office: (414) 221-2156
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*Serving WEC Energy Group, We Energies, Wisconsin Public Service, Michigan Gas Utilities,
Minnesota Energy Resources, Peoples Gas and North Shore Gas*



- PROPOSED SOIL BORING LOCATION
 - OIL WETTED-COATED MATERIAL ABOVE NATIVE CLAY
 - OIL WETTED-COATED MATERIAL ABOVE AND WITHIN NATIVE CLAY
 - SOIL BORING LOCATION
 - 2017 VISUAL OBSERVATION LOCATION
 - 2017 VISUAL OBSERVATION LOCATION WITH NAPL OBSERVATION IN UNCONSOLIDATED ABOVE CLAY
 - SHEET PILE WALL
 - SHORELINE EXCAVATION EXTENT (REMEDIAL ACTION COMPLETED IN 2018)
 - FORMER STRUCTURE
 - SOIL REMEDIATION EXCAVATION AREAS (2003)
 - SOIL REMEDIATION MGP PIPING RUNS (2003)
 - ← RIVER FLOW DIRECTION
 - FORMER MGP SITE
 - UPLAND SITE BOUNDARY
- SB418 (4.0-5.0)** SAMPLE ID AND INTERMITTENT NAPL DEPTH IN FEET BELOW GROUND SURFACE
- SB417 (17)** SAMPLE ID AND TOTAL BORING DEPTH IN FEET BELOW GROUND SURFACE



NAPL OBSERVATION AND PROPOSED SOIL BORING LOCATION MAP

PRE-DESIGN INVESTIGATION WORK PLAN
 FORMER GREEN BAY MANUFACTURED GAS PLANT
 WISCONSIN PUBLIC SERVICE CORPORATION
 CITY OF GREEN BAY, WISCONSIN

FIGURE 8

DRAFT

RAMBOLL US CORPORATION
 A RAMBOLL COMPANY





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

SR-6J

May 29, 2020

Mr. Frank Dombrowski
Principal Environmental Consultant
Wisconsin Public Service Corporation
700 North Adams Street
Green Bay, WI 54307-9001

Re: Review of the Pre-Design Investigation Work Plan – Revision 0, Former WPSC Green Bay MGP, Green Bay, Wisconsin

Dear Mr. Dombrowski,

The U.S. Environmental Protection Agency (EPA) has reviewed the document entitled: *Pre-Design Investigation Work Plan (PDI WP)* for the Wisconsin Public Service Corporation (WPSC) Green Bay Manufactured Gas Plant (MGP) Site, dated March 16, 2020. Comments on the PDI Work Plan are provided in Attachment 1.

If you have any questions or wish to discuss any of the comments, please do not hesitate to contact me at 312-886-6551.

Sincerely,

A handwritten signature in black ink, appearing to read "S. Rolfes".

Sarah Rolfes
Remedial Project Manager

cc: Sara Krueger, Wisconsin DNR
William Fitzpatrick, Wisconsin DNR

Attachment 1 – Comments on the Pre-Design Investigation Work Plan

WPSC indicates that the purpose of the PDI WP would be to guide its taking of a potential interim action on the upland portion of the Green Bay MGP site (Site). Before an interim action is taken, however, EPA would need to review remedial design submittals and authorize the work prior to construction. Upon completion of any interim actions, the Remedial Investigation of the Site will recommence. I note that if WPSC has not defined the full nature and extent of site contamination and/or has not taken sufficient interim actions to fully address soil and groundwater exceedances, then EPA cannot guarantee that it can issue a “no further action” or “institutional controls only” record of decision for the Site.

General Comments

1. The PDI WP in its current form does not address all Site data gaps and two instances are noted below –
 - a. Based on a review of Table 5 from the 2003 Remedial Action Documentation Report, thermally treated soil used as backfill within the excavation still has exceedances of screening levels.
 - b. The extent of subsurface NAPL in the area of the former MGP structures south of the Utility Court are not known. Based on a review of Table 12 from the 2003 Remedial Action Documentation Report, the side wall and bottom samples from the four excavation areas still have exceedances of screening levels. For example, Sample EW 2-4 (7 ft) has detections of benzene at 8,900 ppm, benzo(a)pyrene at 11,000 ppb, and naphthalene at 95,000 ppb all of which are above screening levels. Additionally, the statement on page 15 of the 2020 PDI WP that excavations did not proceed laterally or vertically to remove tar that occurred in clay fractures or “silt seams”, indicates there may be NAPL that extends laterally from the excavation areas in silt seams. The extent of NAPL does not appear to be defined.
2. Additional soil borings are recommended along the land-side of the sheet pile wall installed as part of the 2003 soil removal action. Approximate suggested locations are shown as red rectangles on the annotated Figure 8, PDI Work Plan (Attachment 2). The purpose of the sample locations would be to see if NAPL exists at any depth behind the wall, either outside the 2003 removal action footprint, or underneath the footprint, or within if NAPL migrated to a more permeable layer.
3. A brief description of the site-specific geology and hydrogeology (where the water table is encountered) as well as prevailing groundwater conditions in an early section of the document would provide context for the vertical DPI soil data to be collected and for biotrap deployment. A cross-section through the northern portion of the site with lithology of existing borings would enhance the understanding of vertical soil sampling.

Specific Comments

1. Executive Summary - Please clarify statement in second to last sentence of the first paragraph on page 5 that is in parentheses. It is unclear if borings will extend 20 feet into the clay or a total of 20 feet.

Attachment 1 – Comments on the Pre-Design Investigation Work Plan

2. Executive Summary - The work plan states that the vertical and horizontal extent of delineation is complete if no oil coated or oil wetted observations are present. Consider including oil staining as visual evidence of source material impacts.
3. Executive Summary – The last sentence of the first paragraph on page 5 indicates that if there is 4 feet of DNAPL-free sample, the boring will be terminated regardless of whether it has reached the top of the clay. All borings should extend into the clay at least 5 feet despite any absence of DNAPL in the overlying soils.
4. Executive Summary - Sample collection protocol does not include sampling of the native clay, when impacts are encountered. The TarGOST data is collected down to 20 ft and is expected to include impacts in native clay, however the vertical soil sampling terminates "within the 2-foot interval above the clay defining layer." Consider collecting soil samples into the top of the clay at 2-foot intervals until impacts are observed.
5. Section 1.4 – Please include a brief summary of the sheet pile wall and shoreline excavation activities that were performed to the northeast of Area 3, as shown on Figure 4. This summary should highlight the depth and conditions that prompted this work
6. Section 2 - The first sentence in Section 2 suggests that sufficient data have been collected at the site to "estimate the extent of affected media." The purpose of this sentence is not clear, and it can be confusing to the reader as it is seemingly incongruent with the Work Plan Data Gap 1 (Section 2.2) which highlights that the extent of the horizontal and vertical extent of soil exceeding RGs has not been established in the north parking lot. As written this sentence is misleading, please modify or delete this sentence accordingly
7. Section 2.2 - The objective of the soil boring investigations presented prior to section 2.2 is to delineate the extent of source material impacts as determined by visual observations. Section 2.2 seems to suggest the delineation is based on remediation goals which contradicts with information presented previously. Please remove reference to delineation based on remediation goals.
8. Section 2.3 – Should Data Gap 3 be under a separate heading, as it is not related to utilities?
9. Section 3.1.1 - This section indicates that the active parking lot may require partial or total closure. It is unclear if this closure is related to the investigation presented in this work plan, or as part of remedial activities. Please revise sentence to clarify.
10. Section 3.3.1 - Have measurable thicknesses of LNAPL or DNAPL been observed in any monitoring wells at the site, either recently or in the past? Depending on the soil conditions observed during this work, is there any need to determine if these NAPL conditions represent something more than residual NAPL, or is it presumed that all NAPL (residual or otherwise) will be addressed as part of the remedial action?
11. Section 3.3.1 – Considering the presence of NAPL that has been detected in the fractured clay and the unknown nature of the source of these impacts, it is recommended that all borings be advanced into the top of this unit and not terminated prematurely should a 4-foot interval of unimpacted soil be observed.

Attachment 1 – Comments on the Pre-Design Investigation Work Plan

12. Section 3.3.1 - The text states that "TarGOST® laser induced fluorimeter response will be calibrated to the residual DNAPL prior to mobilization on site." Please provide additional detail on what is meant by this statement. Calibration of TarGOST to a site-specific NAPL condition is not normally done, but instead the instrument is calibrated to a standard reference emitter (RE) where readings are generated that are relative to that reference (in units of percent RE).
13. Section 3.3.1 – Please provide additional information regarding the utilization of TarGOST, as the intended usage/role is not entirely clear. For example, will TarGOST profiles be generated in advance of the completion of DPT borings so that soil sample collection intervals can be targeted and a preliminary extent of DNAPL can be determined? Will the DPT borings then be used to confirm these extents and assess the LIF response thresholds that are indicative of DNAPL at the site? If TarGOST borings will be advanced ahead of DPT sampling and they will extend 5 feet into the top of the clay then the follow-on DPT borings may not all need to extend this deep, and perhaps at only a couple of select locations they could extend to the same depth to confirm the observed TarGOST responses here. With this confirmation the remaining DPT borings where impacts were not observed in this unit with TarGOST could be terminated at shallower depths based on where impacts were observed.
14. The sequence of TarGOST and how it will be used in the field to guide sample collection and delineation decision making should be clearly outlined in the work plan.
15. Section 3.3.1 – Please include the spacing that will be utilized for the contingency borings and update Figure 8 to include potential locations.
16. Executive Summary, Section 3.4, and Table 1 - It is not clear if biotrap will be deployed only to assess the microbial population naturally present in the COPC-impacted groundwater (as described for data gap 4), or if stable isotope probing (using naphthalene) will be conducted (as described in Table 1). No mention of lab analyses such as CENSUS qPCR or QuantArray for assessing the diverse microbial population is made. If biotrap will only be used to label naphthalene and track its biodegradation into biomass and CO₂, provide rationale how this would be used as a line of evidence for benzene and benzo(a)pyrene natural attenuation.
17. Table 1 – Footnote 5 includes a reference to sediment sampling. Please revise accordingly.
18. Figure 4 – In the legend Excavation Area 1 is repeated and Excavation Area 4 is omitted. Please revise as appropriate.
19. Figure 5 - The same symbol is noted for both the hand auger sampling and surface soil sampling location. Please review and change the symbol or the label accordingly.