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June 7, 2022
File No. 20.0157080.00

Mr. Kevin McKnight, Hydrogeologist
Wisconsin Department of Natural Resources
625 East County Road Y, Suite 700
Oshkosh, Wisconsin 54901-9731

Subject: Supplemental Site Investigation Work Plan
Oshkosh Defense West Plant
500 West Waukau Avenue
Oshkosh, Wisconsin
BRRTS No. 02-71-587406

Dear Mr. McKnight:

GZA GeoEnvironmental, Inc. (GZA), on behalf of Oshkosh Defense, LLC (Oshkosh/"Client"), prepared this Supplemental Site Investigation Work Plan ("Work Plan") for the property located at 500 West Waukau Avenue in Oshkosh, Wisconsin (referred to as the "West Plant"). This Work Plan is being submitted in response to comments from the Wisconsin Department of Natural Resources (WDNR) based a review of the soil and groundwater sample results collected at the site in August and October 2021. Based on the review comments received by Oshkosh in a February 14, 2022 email, the WDNR PFAS Review Committee met on January 26, 2022, and is requiring that site investigation activities be completed in accordance with Chapter NR 716, Wisconsin Administrative Code (Wis. Adm. Code). Specifically, the comments provided by the WDNR from the meeting were as follows:

- "NR716 SIR needs to be completed
- Workplan needed to delineate extent of PFAS compounds in groundwater.
- PFAS compounds without proposed standards considered environmental pollution and degree and extent needs to be defined.
- Sediment sample WP-SB-9
- Additional evaluation/sampling needed to determine if source of contamination is from storm sewer outfall.
- Additional sampling will be needed to quality for offsite exemption.
- Compounds without proposed standards – Site specific soil and groundwater standards may be proposed for use."

Following our review of WDNR's comments, GZA reached out with additional email communication on March 18, 2022, seeking clarification on various elements, followed by a teleconference call with you on March 23, 2022.

The Work Plan presented herein incorporates the information gained through our discussion and was ultimately developed to address the requirements of Chapter NR 716. This Work Plan is based on a phased approach that utilizes the existing data and observations to determine the need and scope of subsequent data collection activities.



INVESTIGATION APPROACH AND RATIONALE

Previous site investigation activities identified limited polyfluoroalkyl substances in soil and groundwater in an area of the West Plant previously used during periodic testing of the fire suppression system to discharge aqueous film-forming foam (AFFF). During previous investigation activities, one monitoring well and nine soil borings were advanced to characterize the soil and groundwater for per- and polyfluoroalkyl substances (PFAS). The detected levels of PFAS in the soil (non-detect to 38 micrograms/kilogram) and groundwater (non-detect to 19,000 nanograms/liter) were low-level concentrations that do not indicate a significant discharge to the soil or groundwater.

The discharge location on the West Plant site is in the southwest corner of the property near the intersection of Waukau Avenue and Hughes Street. This is an industrial area located adjacent to Wittman Airport to the west, and which includes at least two historic landfill sites. The airport and landfill sites represent potential PFAS source areas that may have affected the soil and groundwater quality in the area and at the West Plant site.

The West Plant is situated along the east edge of the Glatz Creek watershed, which encompasses most of the Wittman Airport and Experimental Aircraft Association (EAA) properties and extends west to include the developed area on the west side of Interstate 41 (I-41). The Glatz Creek Watershed is shown on Figure 1. Glatz Creek crosses the West Plant property from west to east approximately 1,300 feet north of the fire suppression system testing AFFF discharge location and discharges to Lake Winnebago approximately 2,300 feet east of the West Plant site. As shown on Figure 1, the West Plant site is near the discharge of Glatz Creek into Lake Winnebago. Surface water that discharges through Glatz Creek from the airport and other developed areas flows across the West Plant site and could represent a potential source of low-level PFAS that may affect the soil and groundwater quality in the area and at the site by deposition of sediment from the creek or infiltration of surface water during high surface water flow events.

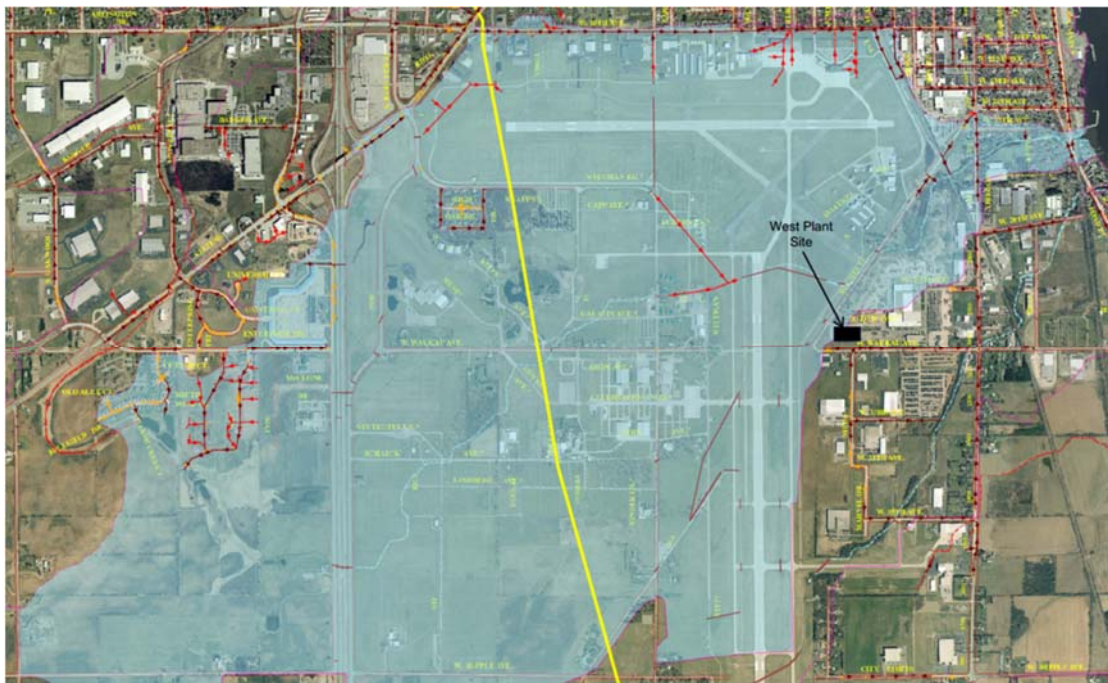


Figure 1. Glatz Creek Watershed and West Plant Location.
City of Oshkosh website: https://www.ci.oshkosh.wi.us/StormWaterUtility/glatz_creek_watershed.aspx.



The groundwater flow in this area is anticipated to follow the topography, therefore, the flow is expected to be north/northwest toward Glatz Creek, as shown on the regional groundwater flow map prepared by the WDNR for this area (Figure 2). Based on the assumed groundwater flow direction, the industrial properties south of the West Plant site are in an upgradient position and could represent a potential source of low-level PFAS that may affect groundwater quality in the area and at the West Plant site.

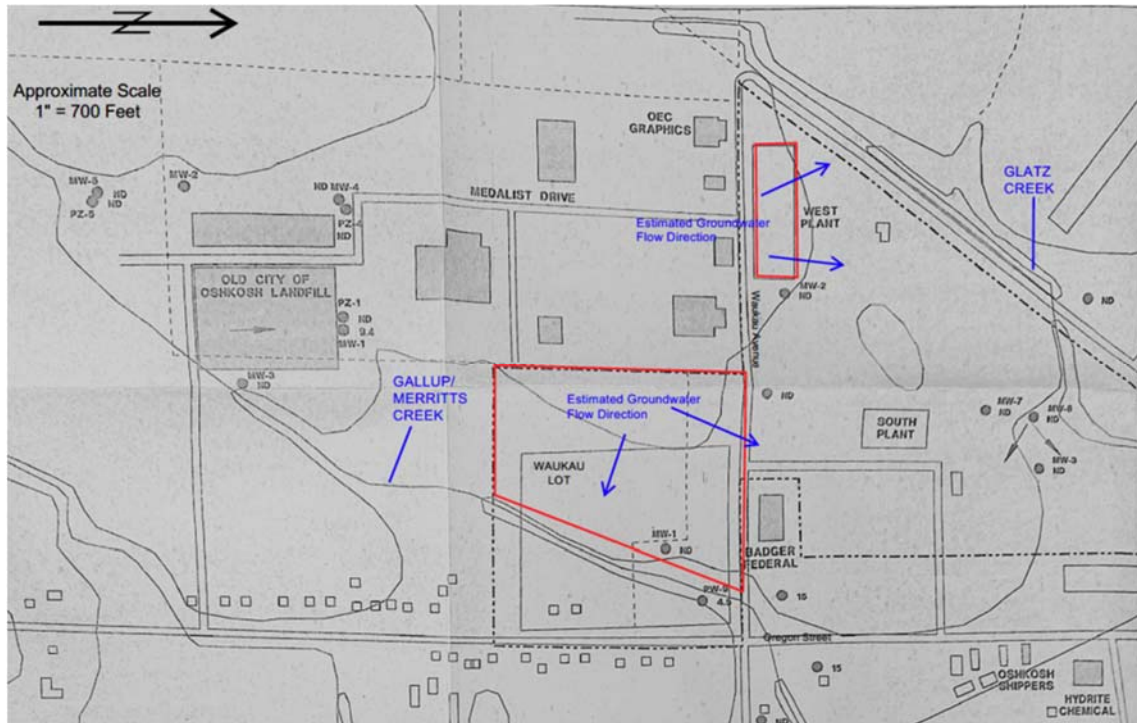


Figure 2. Regional Groundwater Flow Map Showing Estimated Groundwater Flow Direction for the West Plant.

Based on the low-level PFAS concentrations detected in the AFFF discharge location on the West Plant site and the potential PFAS sources adjacent to the site or the discharge surface water through Glatz Creek, the approach for this investigation is to install monitoring wells along the upgradient property boundaries to evaluate the potential for other sources to be affecting the groundwater quality at the West Plant. Using this approach, this Work Plan can substantially satisfy the Chapter NR 716 requirements to delineate the extent of PFAS in groundwater and determine the groundwater flow direction in the area of the AFFF discharge location. In addition to the monitoring wells, a soil sample will be collected on the western property boundary where Glatz Creek enters the site to evaluate the potential for PFAS migration along the creek.

PROPOSED SITE INVESTIGATION ACTIVITIES

The proposed site investigation activities to be performed include the following:

- Four monitoring wells (MW-2 through MW-5), as shown on Figure 3, will be installed to characterize and delineate groundwater quality around the AFFF discharge location. The monitoring wells will be installed to a depth of approximately 20 feet below ground surface (bgs). Soils samples will be collected throughout the depth of the borings for visual observation and soil classification. Soil samples will not be collected for laboratory analysis.



Figure 3. Proposed Soil Monitoring Well Locations.
Existing Well (blue circle) and Proposed Wells (red triangle)

- The monitoring wells will be completed with 2-inch-diameter flush-threaded polyvinyl chloride (PVC) riser and well screen. The well screen will be 10 feet of 0.010-inch factory-slotted screen. The annular space surrounding the well screen will be filled with sand filter pack material from the bottom of the borehole to a depth approximately 2 feet above the top of the screen. The annular space above the sand filter pack will be filled with 3/8-inch bentonite pellets to create a seal to prevent surface water migration along the well casing. The surface of the wells will be covered with an 8-inch manway with a concrete apron.
- Following well installation, the wells will be developed by surging the water in the well screen and sand filter pack to mobilize sediment into the well and the water will be removed using a disposable bailer or submersible pump. The wells will be developed in accordance with the WDNR Groundwater Sampling Field Manual procedures. The purge water will be placed in a 55-gallon drum and labeled until proper disposal can be arranged.
- The top of casing elevation of the newly installed wells will be surveyed relative to on-site datum so that groundwater elevations can be determined for each well.
- Following well development, the wells will be allowed to equilibrate prior to performing groundwater sampling activities. The depth to groundwater relative to the top of casing will be measured in each well prior to purging. The groundwater purging and sampling will be performed using low-flow sampling techniques. The wells will be purged using a peristaltic pump with a flow rate that generates negligible drawdown in the well. During purging, field parameters (temperature, pH, dissolved oxygen, specific conductance, oxidation-reduction potential, and turbidity) will be monitored using a flow-through cell until the parameters stabilize. The groundwater sampling activities and measurements will be recorded on a groundwater sampling form.
- Following purging, the tubing will be disconnected prior to the flow-through cell and the groundwater samples will be collected in laboratory-supplied sample containers directly from the sample tube. The samples will be placed on ice in an insulated cooler and shipped via overnight carrier under chain-of-custody control to Pace[®] Analytical Services (Pace) of West Columbia, South Carolina for analysis of the Wisconsin List of 33 PFAS.



- One soil boring (SB-10, as shown on Figure 4), will be advanced to a depth of 1 to 2 feet bgs in the area near Glatz Creek along the west site boundary near Hughes Street. This soil sample will be advanced at the selected location using a hand auger. Soil samples will be collected throughout the boring in 1-foot intervals for visual observation and soil classification. One soil sample will be collected from this boring, placed on ice, and shipped under chain-of-custody control to Pace of West Columbia, South Carolina for analysis of the Wisconsin List of 33 PFAS.

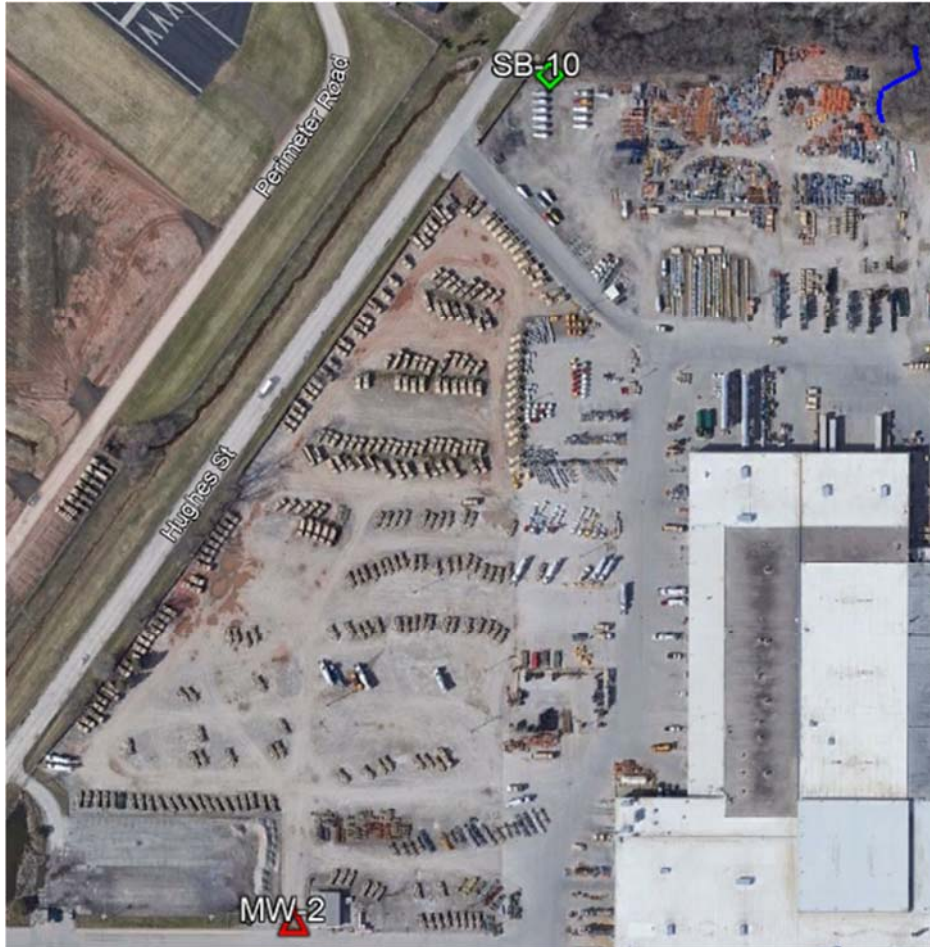


Figure 4. Proposed Soil Boring (SB-10) Location (green diamond).

- Upon receipt of the soil and groundwater results, the results will be summarized in letter format and will be presented to the WDNR. The additional sampling of these wells will achieve the requirements of the site investigation and Wisconsin Administrative Code NR 716.09. The letter will include historic soil and groundwater data tables, a map of the soil boring and monitoring well sample locations, a map showing the potentiometric surface and groundwater flow directions, and an interpretation of the site investigation data with a recommendation for the next steps.

SCHEDULE

The Site investigation activities described above are anticipated to be implemented in June 2022. GZA and Oshkosh are not requesting a written response to this Work Plan, therefore, the activities will be implemented once subcontractor schedules can be coordinated.

This scope of work will be implemented, and the results will be presented to the WDNR in a timely manner following receipt. Oshkosh and GZA appreciate the comments from the WDNR and look forward to moving this project toward closure.



If you have questions regarding this Work Plan, please feel free to contact Mr. Kevin Hedinger at 262-424-1761 or via email at kevin.hedinger@gza.com, or Mr. John Osborne at 262-424-2042 or via email at john.osborne@gza.com.

Sincerely,

GZA GeoEnvironmental, Inc.

A handwritten signature in blue ink, appearing to read 'K. Hedinger'.

Kevin M. Hedinger
Senior Hydrogeologist

A handwritten signature in blue ink, appearing to read 'John C. Osborne'.

John C. Osborne, P.G.
Principal Hydrogeologist

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- c. Mr. Kevin Tubbs, Oshkosh Corporation
- Ms. Suzanne Murawski, Oshkosh Defense
- Mr. Scott Obremski, Oshkosh Defense
- Mr. Edward Witte, Godfrey & Kahn
- Mr. William Nelson, Godfrey & Kahn