



November 9, 2023

Ms. Amanda Sullivan
ARNG
111 S. George Mason Drive
Arlington, VA 22204

Subject: Review of *Draft Final Remedial Investigation Quality Assurance Project Plan*
West Bend Army National Guard AASF #1 and Armory
DNR BRRTS #: 02-67-587928, FID #: 267015980
105 S. Trenton Road & 125 Chopper Drive, West Bend, WI

Dear Ms. Sullivan:

On September 21, 2023, the Wisconsin Department of Natural Resources (DNR) received the *Draft Final Remediation Investigation Quality Assurance Project Plan* (RI-QAPP), prepared on behalf of Army National Guard by AECOM. The review fee for the RI-QAPP is covered under an interagency agreement.

Background

West Bend Army Aviation Support Facility (AASF) #1 and Armory was constructed in 2004 on a parcel of land, approximately 35 acres, owned by the City of West Bend, and leased to the Wisconsin Army National Guard (WIARNG). The current West Bend AASF #1 and Armory facilities include administrative offices, classrooms, and hangars for the operation, maintenance, and repair of WIARNG rotary-winged aircraft. Two potential release areas were identified in the preliminary assessment report, and the results of the initial site inspections of those two areas are included within the Site Inspection Report. The preliminary assessment and site inspection, as well as the future remedial investigation, at the West Bend AASF #1 and Armory are part of a nationwide effort to investigate per- and polyfluoroalkyl substances (PFAS) at Department of Defense (DoD) facilities.

RI-QAPP Review

The DNR reviewed the RI-QAPP for compliance with Wis. Admin. Code ch. NR 716, which establishes the requirements for site investigations conducted in the state of Wisconsin. Based on the review of the currently available information, the DNR generally concurs with the remedial investigation activities proposed within the RI-QAPP and provides the following comments:

- The DNR understands that the work being done at the West Bend AASF #1 and Armory are following the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. This does not, however, exempt a site from applicable state laws. Therefore, the DNR considers Wis. Admin. Code and Wis. Statutes as applicable regulatory requirements. The DNR standards for soil, sediment, surface water, and groundwater are applicable or relevant and appropriate requirements (ARARs), if more stringent than federal requirements. The requirements of Wis. Admin. Code ch. NR 716 are applicable, including defining degree and extent of contamination in all affected media, including off-site. The DNR

also considers the requirements of Wis. Admin. Code ch. NR 722, including the requirement to evaluate remedial action options if state and/or federal standards are exceeded, as an applicable requirement.

- The DNR understands that the data from the vertical aquifer sampling will be used to determine the locations of permanent monitoring wells. The permanent monitoring wells should be installed in compliance with Wis. Admin. Code ch. NR 141. The DNR would also recommend installing permanent monitoring wells in the locations of the previous temporary wells to determine groundwater trends in those areas.
- Since the rainwater basin allows for infiltration, consider a vertical aquifer sampling location(s) or a permanent monitoring well(s) between the basin and the Milwaukee River to assess if the basin infiltration is impacting the groundwater and/or river. Also consider collecting a surface water location directly south of the rainwater basin.
- The DNR requests that the sampling results of the entire 40 compound list be tabulated for each sampled media.
- The Remedial Investigation Report, and subsequent reports, should include isoconcentration maps and cross-sections.
- Consider if additional soil/groundwater sampling is needed at/near AOI02-03.
- As requested in the previous DNR letter dated June 16, 2021, consider the storm sewer drain as a migration pathway. Determine if the storm sewer is in good condition or if cracks in the storm sewer would allow for groundwater infiltration. Assess other utilities on site for migration potential and include their locations on site figures. Additionally, determine if the AFFF storage area is in good condition. The previous DNR response letter requested this information and the Army National Guard pointed to the preliminary assessment. The condition of the storage area was not clear to DNR.
- When a risk assessment occurs, it should be done using the most up-to-date state and/or federal standards, if available. If there are promulgated state and/or federal PFAS standards, these would supersede any screening levels from the July 2022 memo.
- Provide additional information on how soil source areas are contributing to groundwater contamination and how you will establish criteria to assess that risk.
- The Receptor and Exposure Pathway table in QAPP worksheet #10 states that ‘off-facility receptors will only be evaluated if downgradient impacts to drinking water are identified and can be attributed to ARNG activities at the facility.’ Under Wis. Admin. Code NR 140.24 and NR 140.26, it might be necessary to take an action if groundwater concentration exceed a preventive action limit or enforcement standard, both on- and off-site. This is regardless of whether groundwater is being consumed or whether there are impacted receptors.
- DNR requests the inclusion of Wisconsin Department of Health Services proposed standards for PFAS in groundwater as data quality objectives: <https://www.dhs.wisconsin.gov/publications/p02807.pdf>.
- Provide copies of the standard operating procedures noted in Appendix D.
- The following comments are regarding Appendix E:
 - Line 496: soil ingestion rate for child and adult may have been swapped.
 - Line 648: the number of samples in each soil sampling grid is lower than the amount recommended by the Environmental Protection Agency (EPA) guidance for calculating exposure concentration terms (Supplemental Guidance to RAGS: Calculating the Concentration Term, EPA, 1992). Consider additional soil sample locations in each soil exposure unit to increase the confidence in the 95% upper confidence limit calculation. If there is a lot of uncertainty associated with the 95% UCL calculation due to high variability in the dataset, it might be necessary to use the highest concentration sample as the exposure concentration.
 - Line 721: in Wisconsin, it is still a requirement to address contaminated groundwater regardless of whether it is being used for drinking water.

The remedial/site investigation can be an iterative process. Additional sampling may indicate that further assessment is needed to define the degree and extent of contamination in all affected media.

The DNR appreciates your efforts to address the contamination at this site. If you have any questions regarding this letter, please contact me, the DNR Project Manager, at (414) 750-7030 or via email at riley.neumann@wisconsin.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Riley D. Neumann".

Riley D. Neumann
Project Manager / Hydrogeologist
Remediation & Redevelopment Program