

July 25, 2024

JORDAN BRADLEY
USACE OMAHA DISTRICT
1616 CAPITOL AVENUE
OMAHA NE 68102

**Re: Draft Final Uniform Federal Policy – Quality Assurance Project Plan (UFP-QAPP) and Associated QAPP Addendum; Remedial Investigations for Per- and Polyfluoroalkyl Substances (PFAS)
Des Moines Air National Guard Base, Iowa
Iowa DNR Contaminated Sites Database ID No. 380**

Mr. Bradley:

On June 10, 2024, the Iowa Department of Natural Resources (DNR) Contaminated Sites Section received a Draft Final Uniform Federal Policy – Quality Assurance Project Plan (UFP-QAPP) and associated QAPP Addendum for PFAS remedial investigations for Per- and Polyfluoroalkyl Substances (PFAS) at the Des Moines Air National Guard Base located at the Des Moines International Airport in Des Moines, Iowa. DNR Contaminated Sites has reviewed the documents, and approves them as written with the exception of comments noted below (all pertaining to the QAPP Addendum document).

1. Page 18: Pertaining to the first-encountered bedrock below the airport, “Des Moines” is not a formal Group in stratigraphic nomenclature for the Pennsylvanian. The bedrock below the site is Cherokee Group of the Desmoinesian Stage.
2. Page 19: A well belonging to the City of Des Moines (well #7727031) is a Jordan well (>2000’ deep) used for artificial aquifer storage (ASR), and is not a water supply or primary drinking water well. Water collected and used by the Des Moines Waterworks for supply to the city is entirely surface water, or extremely shallow groundwater under the immediate influence of surface water. Please revise to reflect the reliance of the main water plant in Des Moines on surface water from the Raccoon River. Noted issues with nitrates and coliform are related to the surface water sources of the city and not to well 7727031.
3. Page 19: In the report, the noted population served is 245,000 people. The Des Moines Waterworks serves approximately 600,000 customers.
4. Page 25: Well 7727031 is noted as a possible receptor for PFAS migrating offsite. While this may be technically true, the most significant receptor related to drinking water (the intake gallery at Waterworks Park) is not listed as a receptor. This intake gallery is the most important source of raw water for the city. The Des Moines Waterworks is listed as a plant that uses groundwater; in actuality, the plant uses surface water, and water drawn from the immediate influence of the Raccoon River, and should be considered a surface water facility.
5. Page 26: Frink Creek and the Raccoon River should be listed as drinking water receptors and not solely as recreational/biological receptors since both are important sources of drinking water for the city, and are influenced by run-off from the airport.

6. When considering pathways and receptors for this investigation, priority should be given to run-off and surface water pathways since they are *significantly* more likely to impact drinking water sources than groundwater pathways.
7. Page 29: Step 4 notes that “The downgradient extent of PFAS impacts may be off installation property and is expected to extend to the southwest.” Iowa DNR believes that local groundwater flow is unlikely to convey water laterally to any significant extent based on the geology of unconsolidated sediments present, and that surface water and run-off are likely to be the most significant means by which PFAS might leave the installation. Impacts to the southwest are likely to be minimal to non-existent, while extant data show clear impacts to the north/northeast and east along surface water drainages (Frink and Yeader Creeks). Receptors of significance exist in the Frink and Yeader Creek drainages, while few or no significant receptors exist to the southwest.
8. Page 30: Rights of Entry (ROE) should not be an impediment to sampling surface waters downgradient of the facility boundaries. The areas in question are largely public property and access can be obtained via public roads or bicycle trails. Iowa DNR can help obtain any desired access, or provide access points for downgradient surface water sampling.

If you have any questions or if we may be of further assistance, please contact me at matthew.graesch@dnr.iowa.gov or by phone at [\(515\) 250-1923](tel:5152501923).

Sincerely,

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