



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

December 20, 2021

VIA E-MAIL AND U.S. MAIL

Dr. Stephen G. Termaath, GS-15, DAF
AFCEC/CIBC
Chief, BRAC Program Management Division
Installations Directorate
2261 Hughes Avenue, Suite 155
JBSA Lackland, Texas 78236-9853

Dear Dr. Termaath:

SUBJECT: Response Requested to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Correspondence for the Former Wurtsmith Air Force Base (Site); Oscoda, Iosco County, Michigan

EGLE previously sent the following correspondence (attached), to United States Air Force (Air Force) regarding the Site and no responses have been received to date:

- February 19, 2021, letter to Mr. Medina, Air Force, from John Bradley, EGLE, RE: Request for Per- and Polyfluoroalkyl Substance (PFAS) Inclusion in the Wurtsmith Air Force Base (WAFB) LF 30/31 Engineered Wetland Treatment System (EWTS) Performance Monitoring Analytical
- March 23, 2021, letter to Dr. Termaath, Air Force, from Mike Neller, EGLE, RE: Interim Action to Remove Per- and Polyfluoroalkyl Substances (PFAS); Former Wurtsmith Air Force Base; Iosco County, Michigan; Site ID No. 35000058

EGLE requests your attention to these matters and requests a written response to these letters by January 30, 2022. If necessary, EGLE is available to discuss the issues related to the Site.

If you have additional questions concerning this matter, please contact me at 517-897-7267; MoshersJ1@Michigan.gov; or EGLE, P.O. Box 30426, Lansing, Michigan 48909-7926.

Sincerely,

Joshua Mosher, Acting Director
Remediation and Redevelopment Division
517-897-7267

Attachments

cc/att: Mr. David Kline, EGLE
Mr. John Bradley, EGLE
Ms. Beth Place, EGLE
Mr. Kalan Briggs, EGLE



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LIESL EICHLER CLARK
DIRECTOR

February 19, 2021

Mr. Daniel G. Medina, GS-13, DAF
Program Manager
BRAC Program Management Division
Air Force Civil Engineer Center
Commercial: 210-395-9419 (DSN 969)

SUBJECT: Request for Per- and Polyfluoroalkyl Substance (PFAS) Inclusion in the Wurtsmith Air Force Base (WAFB) LF 30/31 Engineered Wetland Treatment System (EWTS) Performance Monitoring Analytical

Dear Mr. Medina:

As you are aware, the Air Force is conducting a response action under Comprehensive Environmental Response, Compensation, and Liability Act, 1980 PL 96-50 (CERCLA) associated with the Landfill 30/31 EWTS at the WAFB conducted in a manner that is consistent with state laws regarding removal and remedial actions, and as such, the Air Force is required to meet substantive standards of applicable or relevant and appropriate State of Michigan regulations.

The substantive requirements must include a comprehensive characterization and description of the system wastewater characteristics. The substantive requirements document (SRD) currently recognized by the Air Force was prepared prior to the discovery of PFAS as a site contaminant of concern.

We request that the LF 30/31 influent and effluent (treated water discharge) monthly monitoring include the analysis of PFAS compounds identified in the Department of Defense Quality System Manual as part of the regular system monitoring protocol. This data is necessary to ensure the discharge is in compliance with the substantive requirements of Michigan's regulations, and to determine the potential need for modification of the SRD. It is requested that this change to the LF 30/31 monitoring protocol be implemented as soon as possible and be included in the next monitoring event. We also request that the monitoring data gathered be shared with EGLE Remediation and Redevelopment Division on a monthly basis, as it becomes available.

Thank you for your attention to this matter. If you need further information or assistance, please contact me, at 517-512-5017, BradleyJ1@michigan.gov; Supervisor, Geology and Defense Site Management Division, Remediation and Redevelopment Division; or EGLE P.O. Box 30473, Lansing, Michigan 78909.

Sincerely,

A handwritten signature in blue ink, appearing to read "John Bradley", with a long, sweeping flourish extending to the right.

John Bradley, Supervisor
Geology and Defense Site Management Unit
517-512-5017

cc: Ms. Catherine Varley, Air Force Civil Engineer Center
Mr. Mike Neller, EGLE
Mr. Josh Mosher, EGLE
Mr. Dave Kline, EGLE
Ms. Amanda Armbruster, EGLE
Mr. Charlie Bauer, EGLE
Ms. Ann Person, EGLE
Ms. Beth Place, EGLE



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March 23, 2021

VIA E-MAIL AND U.S. MAIL

Dr. Stephen G. Termaath, GS-15, DAF
AFCEC/CIBE
Chief, BRAC Program Management Division
Installations Directorate
2261 Hughes Avenue, Suite 155
JBSA Lackland, Texas 78236-9853

Dear Dr. Termaath:

SUBJECT: Interim Action to Remove Per- and Polyfluoroalkyl Substances (PFAS);
Former Wurtsmith Air Force Base; Iosco County, Michigan;
Site ID No. 35000058

The Department of Environment, Great Lakes, and Energy (EGLE) supports and appreciates that the Air Force Civil Engineer Center (Air Force) is currently planning two Interim Remedial Actions (IRAs) to address PFAS contaminated groundwater at the former Wurtsmith Air Force Base. The planned actions include the expansion of the FT002 Pump and Treat System (PTS) upgradient of Clark's Marsh and the expansion of the central treatment system to extend capture to Air Force Beach.

EGLE requests that the Air Force performs an additional IRA between the current FT002 and Mission Street PTSs capture zones (Attached - Proposed IRA2). This is an area that is already well delineated and has PFAS concentrations in groundwater comparable to groundwater concentrations proposed for the Air Force Beach IRA (See Draft Quality Assurance Project Plan – Worksheet 17, Figure 17-16 provided for the January 25, 2021 Data Quality Objectives meeting). This action is requested to specifically capture PFAS contaminated groundwater in Aqueous Film Forming Foam (AFFF) Areas 2, 7, 9, and 14 (CAT605P and FT-002), which is moving south-southeast, off of the former base. This IRA request expands on the Expanded Site Inspection (ESI) report recommendation to extend the Mission Street PTS to capture groundwater with PFAS concentrations of PFOA/PFOS above the Lifetime Health Advisory, Part 201 Drinking Water Criteria, and PFOS above Part 201 Groundwater-Surface Interface criteria from ESI AFFF Areas 2 and 7. ESI AFFF Areas 2 and 7 are located upgradient of potential residential receptors.

This action could include the installation of additional groundwater extraction wells to better control the continued migration of contaminated groundwater while a final remedy is being developed. These extraction wells could be connected to existing groundwater treatment systems or additional treatment systems could be installed. EGLE also

Dr. Stephen G. Termaath

March 23, 2021

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encourages the use of alternative PFAS treatment technologies shown to be equally effective.

As per the United States Environmental Protection Agency memorandum, *Use of Early Actions at Superfund National Priorities List Sites and Sites with Superfund Alternative Approach Agreements, August 23, 2019*, such early actions are encouraged and can yield significant benefits to achieving long-term cleanup goals. Such actions would serve to limit contaminant migration and may serve to provide risk reduction.

The recommended early actions to limit PFAS migration in the groundwater are consistent with the existing and anticipated future Remedial Action Objectives (RAOs) at the site. The existing RAO typically include restoring the groundwater to industrial or residential drinking water on the base and restoring off base groundwater to residential drinking water criteria. Where significant groundwater contamination exists, the selected remedies have included groundwater PTSs. In the recommended areas for early action, significant exceedances of the residential drinking water criteria and groundwater surface water interface for PFAS exists. It is reasonable to expect that upon completion of the Remedial Investigation/Feasibility Study, that the objectives and remedies for PFAS groundwater contamination will be substantially consistent with the existing groundwater remedies. Therefore, it is expected that early action PTSs will be consistent with the anticipated long-term remedies.

Should you require further information of a technical nature, please contact Ms. Beth Place, Superfund Section, Remediation and Redevelopment Division, at 517-899-7524; PlaceB1@Michigan.gov; or EGLE, P.O. Box 30473, Lansing, Michigan 48909-7973; or you may contact me.

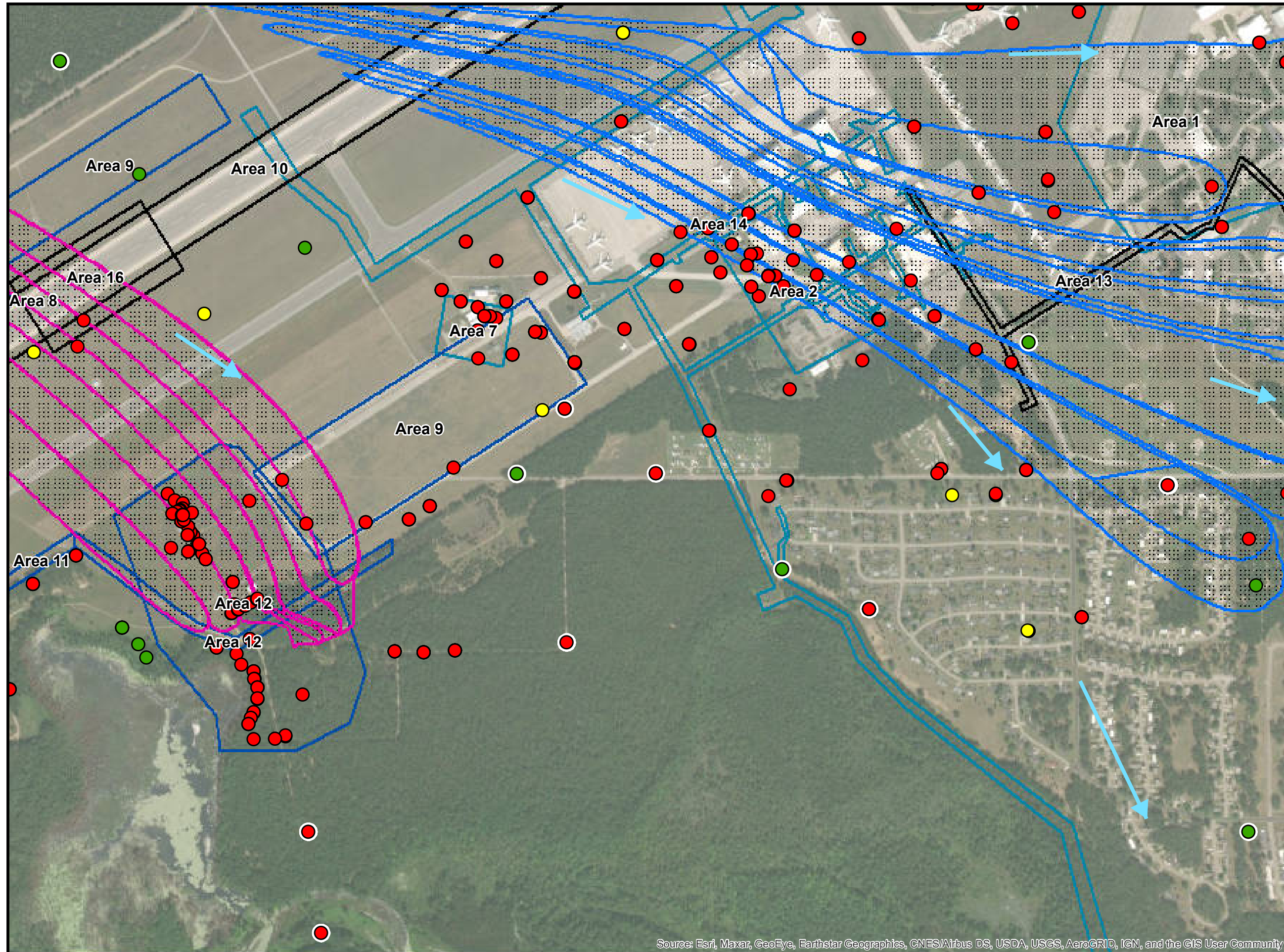
Sincerely,



Mike Neller, Director
Remediation and Redevelopment Division
517-512-5859

Attachment

cc/att: Mr. Daniel Medina, Air Force
Dr. Catharine Varley, Air Force
Ms. Teresa Seidel, EGLE
Mr. Josh Mosher, EGLE
Mr. David Kline, EGLE
Mr. John Bradley, EGLE
Mr. Charlie Bauer, EGLE
Mr. Brad Ermisch, EGLE
Ms. Beth Place, EGLE
Mr. Matt Baltusis, EGLE



Groundwater Analytical Results (PFOS) GSI**

- ND
- <= 12 ppt PFOS
- > 12 ppt PFOS

→ Groundwater Flow Direction

 FT-02 PTS Capture

 Mission St PTS Capture

Air Force PFAS Site

 CAT605P

 CG410

 FT002

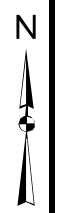
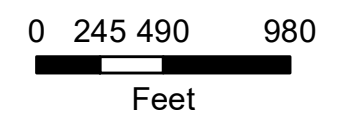
 ST069

 No Further Action

ADDITIONAL IRA MISSION STREET PTS EXPANSION

**FORMER WURTSMITH AIR FORCE BASE
IOSCO COUNTY,
MICHIGAN**

DRAFT DELIBERATIVE



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community