

Air Force Installation & Mission Support Center



Wurtsmith Restoration Advisory Board Meeting

Steven Willis
AFCEC/CIBC
20 Nov 2024

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Checklist for Virtual Participation



- ✓ If you prefer to join audio by phone, please dial the call-in number and enter the access code to enter the meeting
- ✓ Phone unmute instructions - *5 to raise your hand, *6 to unmute/mute
- ✓ RAB Members – mute when not speaking
- ✓ Use “raise hand” to ask a question or provide a comment
- ✓ RAB Coordinator will unmute your mic when it’s your turn to speak
- ✓ To enable closed captions for language support, click “more” – “language and speech” – “turn on live captions”
- ✓ Use Chat for questions
- ✓ Contact the RAB Coordinator with access questions wendi.michael@wsp.com

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Agenda



- **Welcome and introductions**
- **DAF Senior Leadership Introduction**
- **RAB member updates**
- **RAB business**
- **Alert Aircraft Area PFAS IRA update**
- **Vapor Intrusion Remedial Investigation update**
- **Project forecasts**
- **RAB member questions**
- **Public comment period**
- **Conclusion – RAB Co-Chairs’ closing remarks**
- **Adjournment**

(Note: acronym list provided in backup slides)

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RAB Member Updates

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■ Interim Remedial Actions

■ AAA – Ongoing

- Construction underway with target for start of operations by 31 Dec 2024
- Summary of 13 Nov 2024 DAF technical meeting later in agenda

■ DRMO/Landfills 030/031 – New

- Contract awarded 27 Sept 2024
- Implements results of Critical Process Analysis (CPA) including pre-design investigation, design, construction, and one year of startup operations

■ WWTP/3-Pipes – Planned

- CPA Phase II awarded 25 Sept 2024
- Results expected by 15 Dec 2024; will be used to scope the design/construction of IRA in accordance with CPA recommendations



■ PFAS Remedial Investigation

- Delineation of full nature and extent of contaminants will continue in 2025
- A draft *Preliminary Characterization Summary Report**, following USEPA RI Guidance, is under Air Force review
 - *PCSR provides descriptive and analytical results of initial site characterization. It provides a summary of site data and can assist in identification of ARARs
- RI data gaps being identified with input from EGLE and the RAB
- Contract to complete RI expected to begin in early 2025
- RI Report and baseline risk assessments will incorporate all RI data to complete Feasibility Study, Proposed Plan and Final Record(s) of Decision



BRAC Cleanup Team (BCT) Update



- **Aug 2024 BCT meeting summary**
 - **EGLE Part 201 criteria for site SS057: aesthetic-based vs health-based**
 - **Health-based values are appropriate as CERCLA cleanup criteria to be protective of human health and the environment**
 - **Decision document called out aesthetic-based criteria as the Cleanup Criteria**
 - **DAF evaluating the appropriate documentation to change the criteria and potentially the remedy and will present to EGLE**



BRAC Cleanup Team (BCT) Update



- **Sep 2024 BCT meeting summary**
 - **DAF proposed discontinuing pumping groundwater for extraction well #8 at the LF030/031 engineered wetland treatment system**
 - **System designed to remove volatile organic compounds and metals**
 - **Twelve years of monitoring data shows groundwater at extraction well #8 has achieved remedial action objective in record of decision**
 - VOCs have been below Part 201 aesthetic residential drinking water criteria and groundwater-surface water interface criteria since 2012 and non-detect since 2014
 - Metals have been below part 201 aesthetic residential drinking water criteria since 2014
 - **Final decision pending EGLE review/concurrence**



MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

EGLE Updates

Amy Handley

Project Manager

RRD, Superfund Section

Handleya@michigan.gov | 517-898-3356

Recent EGLE RRD Activities

- August and October BCT meetings
- Attended AAA IRA - Noblis Review on NOV 13
- Received fourth quarter vapor pin and indoor air data
- DGI meeting in August
- Meeting with NOW on NOV 8
- Documents reviewed:
 - VI RI QAPP Addendum 2
 - 2022 PTA RAO
- Documents backchecked:
 - VI RI QAPP Addendum 1
 - 2021 PTS RAO
 - MMRP QAPP
 - AAA IRA Draft Work Plan
- Brought on a new contractor for technical support

Upcoming Activities

- Continue to collaborate with Air Force and contractors for developing the DGI work plan
- Expect further discussion with the Air Force on the dispute resolution that was submitted in October
- BCT meetings to resume in 2025, refined focus for these meetings
- EGLE contractors coming onboard and reevaluating historic information
- Additional documents for review or backcheck
 - Five-Year Review expected early 2025
 - Review of LTM and PTS annual reports
 - BECOS QAPP Addendum PFAS
 - Preliminary Characterization Summary (with Risk Assessment) VI QAPP
 - AddendumSS-72 updated FS



RAB Member Updates





RAB Business

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■ Action Items

■ Virtual meetings conducted 30 days after each RAB meeting

- Discuss
- Last meeting - 18 Sep 2024 at 6 p.m.
- Next meeting - 11 Dec 2024 at 6 p.m.

■ Status since 21 Aug 2024 RAB meeting

- Opened 11: 150-160
- Closed 5: 104A-D, 125
- Ongoing 40: 87, 88, 92, 96, 99, 102, 105-106, 109-110, 113, 116, 117, 119-120, 123-124, 131, 133-134, 141-160



- **Technical Assistance for Public Participation (TAPP)**
 - DoD tool to provide RABs with technical assistance during environmental cleanup
 - Includes assistance with interpreting technical documents, assessing technologies, explaining risk assessments, and training
 - RAB completes application with the type of assistance needed
 - DAF awards contract for requested assistance
 - TAPP website at <https://www.acq.osd.mil/eie/eer/ecc/pfas/po/cip-rab-tapp.html>
 - Additional details provided in Backup slides



Alert Aircraft Area Interim Remedial Action

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DAF Review of Former Wurtsmith AFB Interim Remedial Action at the Alert Aircraft Area

USAF AFCEC/CZTE

20 Nov 2024

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Alert Aircraft Area (AAA) Interim Remedial Action (IRA) Review BLUF



BLUF: Continue construction and operation of the IRA pump and treat system at the AAA Site as currently planned.

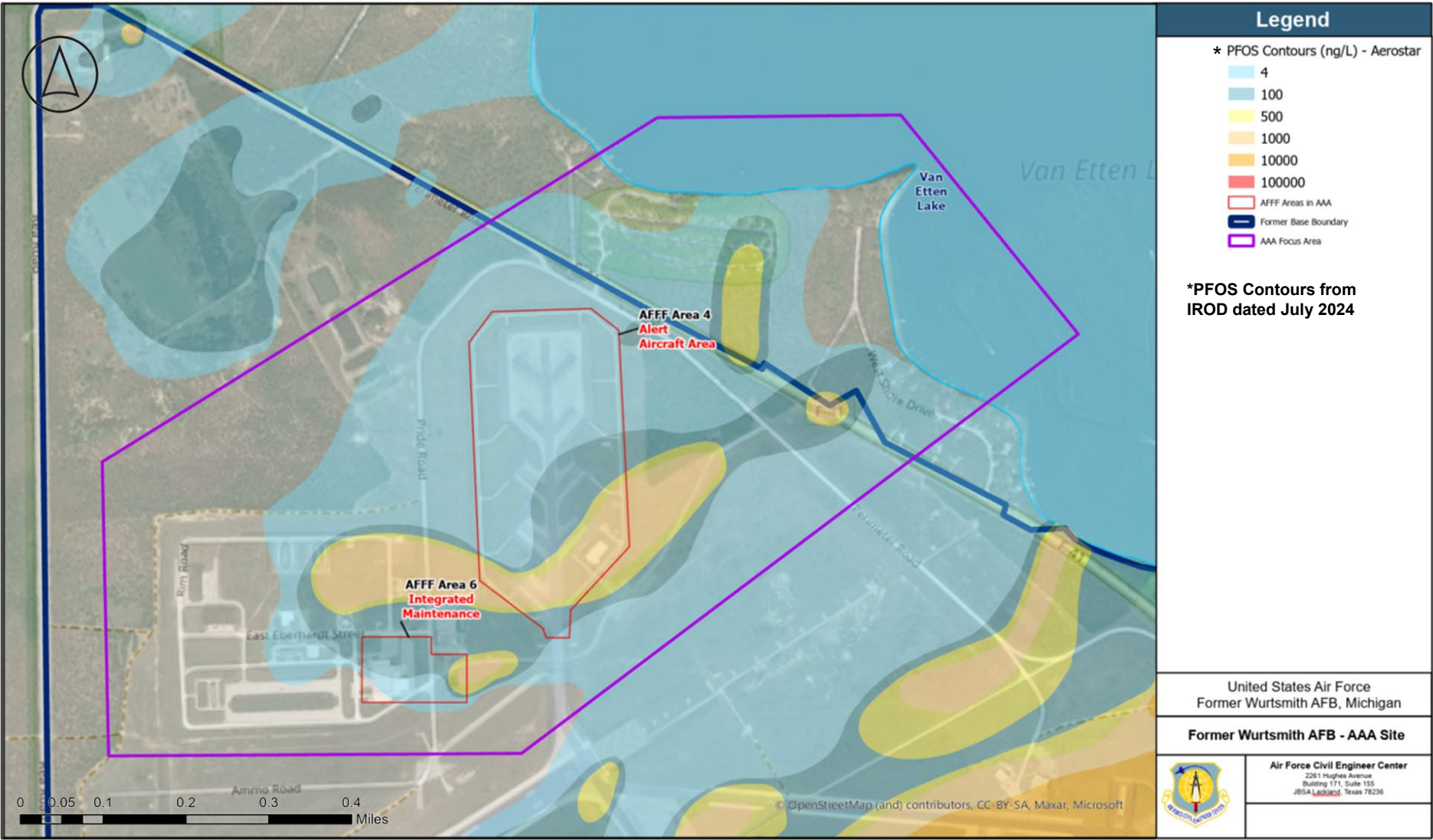
- **Once operating, performance monitoring data and results of additional field studies should be used to evaluate and optimize system effectiveness to assure that PFAS migration across F-41 at North Swise Road associated with the AAA Site is effectively contained.**
- **DAF and Noblis team presented the findings of a technical review of the AAA site on 13 Nov 2024. Key takeaways are discussed here.**



AAA Site Focus Area



- Figure showing PFOS impacted areas* at the AAA site
 - Temporal, composite depiction of impacted areas



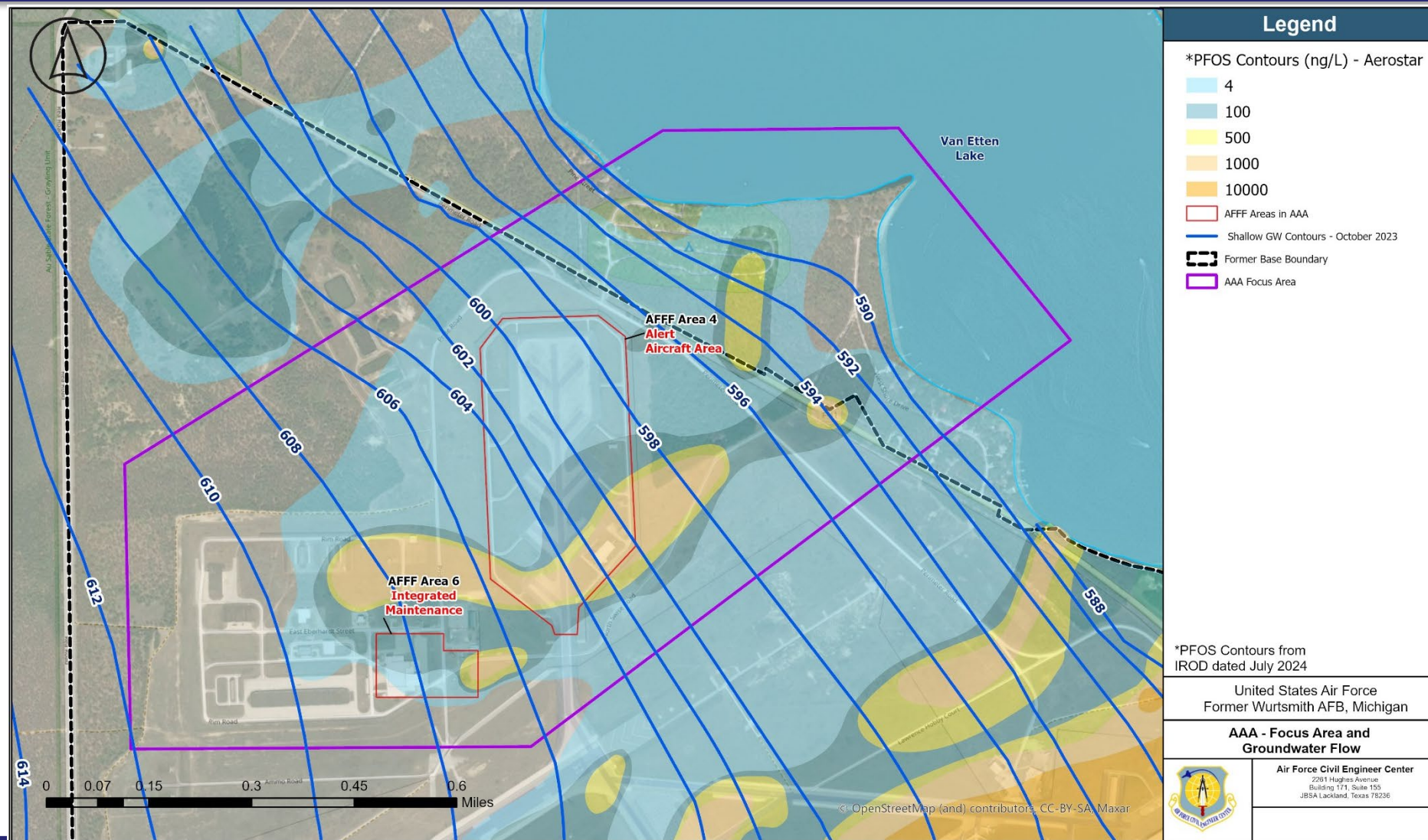
*PFOS contours from IROD dated July 2024



AAA Focus Area and Groundwater Flow



- Focus area based on groundwater flow and PFOS impacted areas



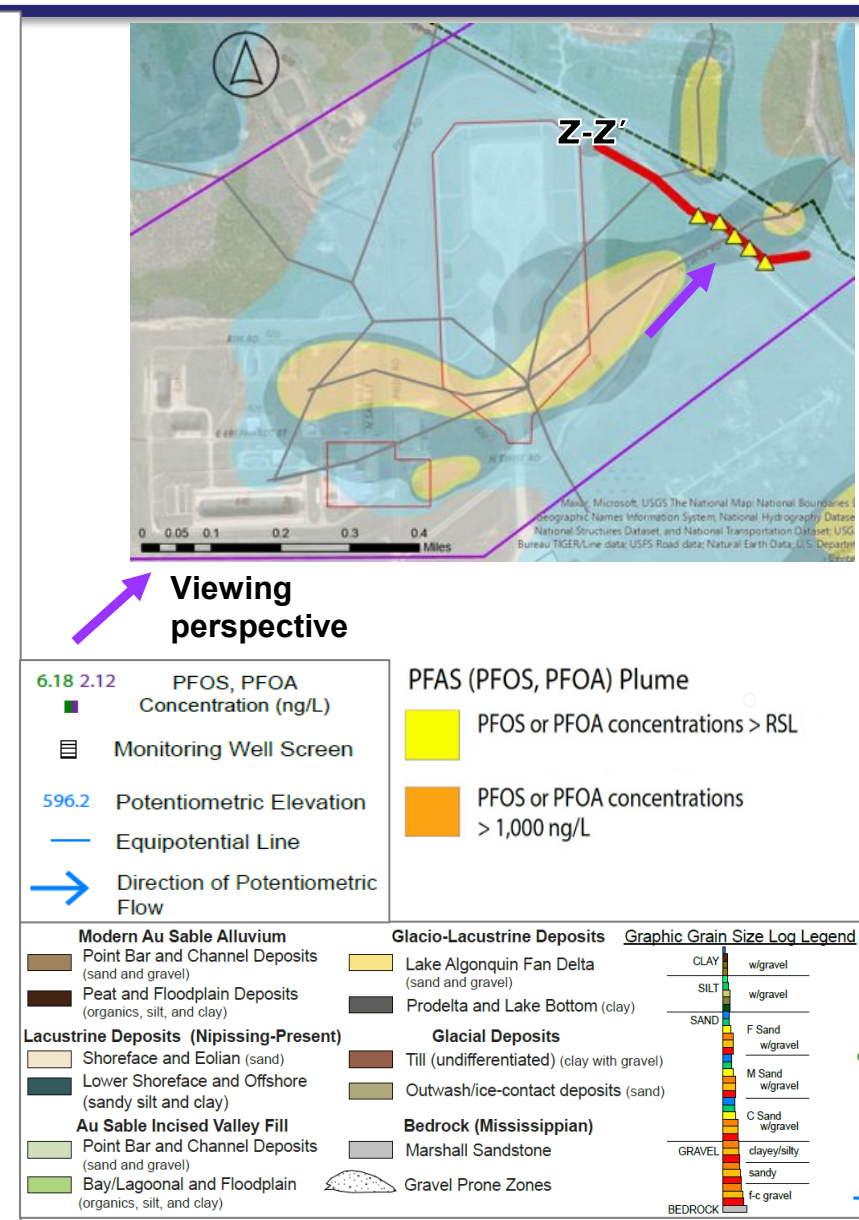
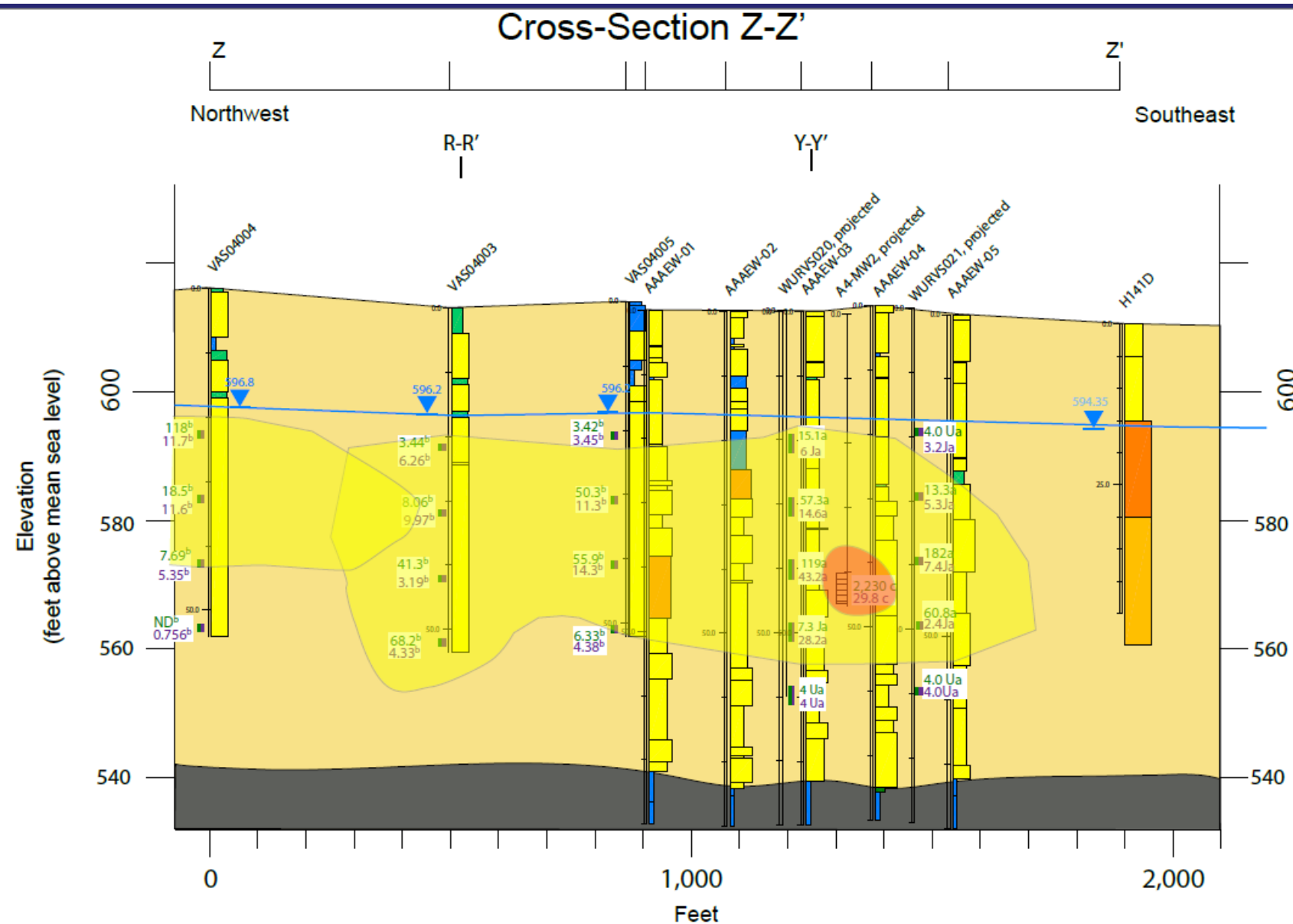
AAA – Alert Aircraft Area
PFOS – perfluorooctanesulfonic acid

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UNCLASSIFIED



Cross-Section Z-Z'

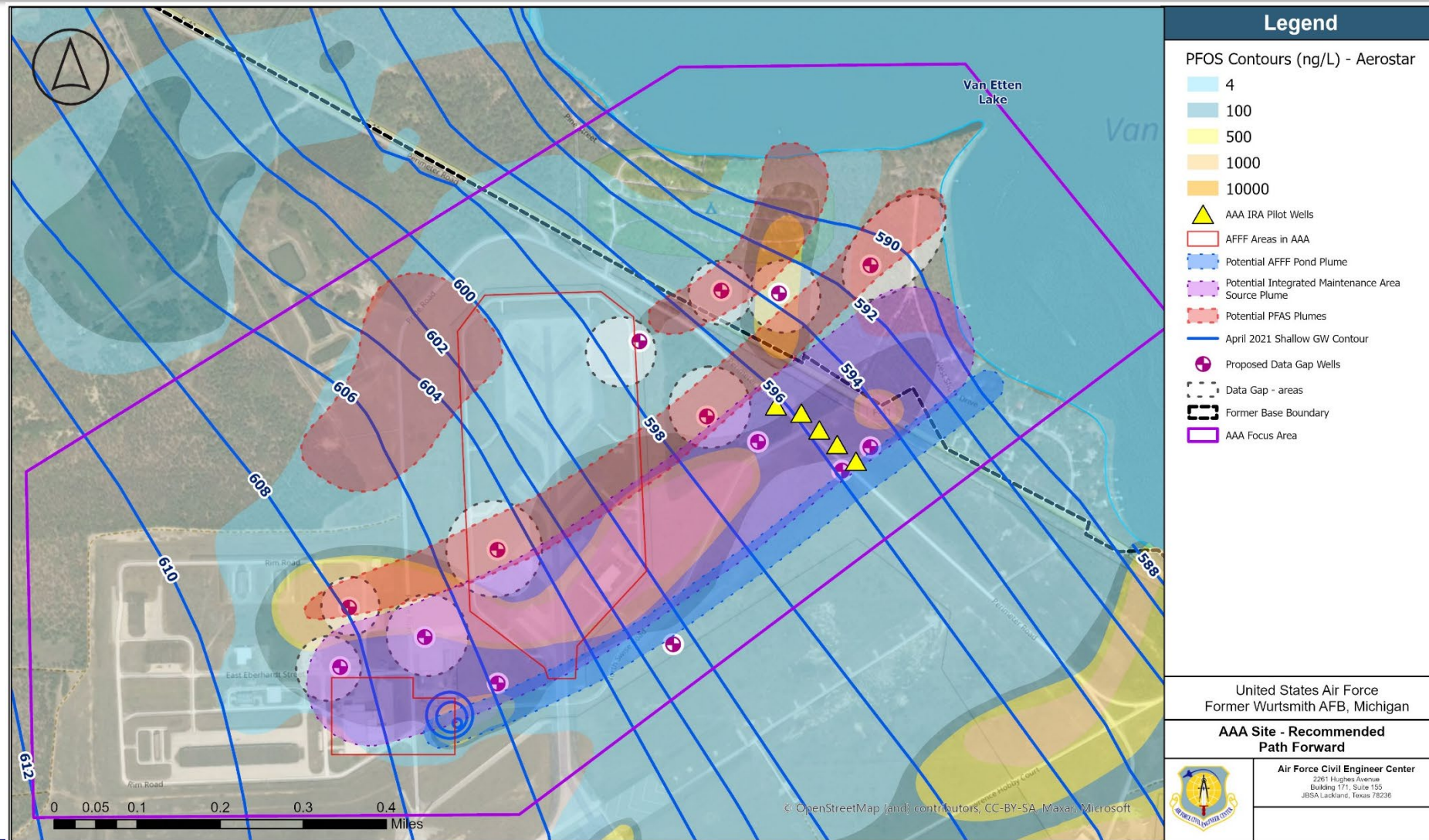




Potential Plume Configurations



- Map showing line of extraction wells (▲) intercepting core of plume from Integrated Maintenance Facility
- Based on our technical review, additional areas and probable plume configurations warrant additional investigation.
- Proposed areas of investigation (⊕)



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Takeaways



- **The planned interim remedy at the AAA Site will reduce PFAS migration across F-41 at North Swise Road.**
- **The proposed extraction well layout will capture PFAS mass discharging from the integrated maintenance facility.**
- **Once operational, performance monitoring, capture zone analysis, and additional field efforts will provide crucial data to demonstrate system effectiveness and optimize its operation.**

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Alert Aircraft Area Interim Remedial Action Construction Update

Paula Bond
Project Manager
20 Nov 2024

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AAA IRA Construction Update



- **The AAA IRA is designed to intercept the highest concentrations of PFAS by extracting and treating groundwater using granular activated carbon**
- **Construction and operation goals are on target**
 - **Construction began 29 Jul 2024**
 - **Operation start up expected by 31 Dec 2024**

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AAA IRA Construction Update



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Vapor Intrusion Remedial Investigation Addendum Update

Celeste Holtz
BB&E
Project Manager

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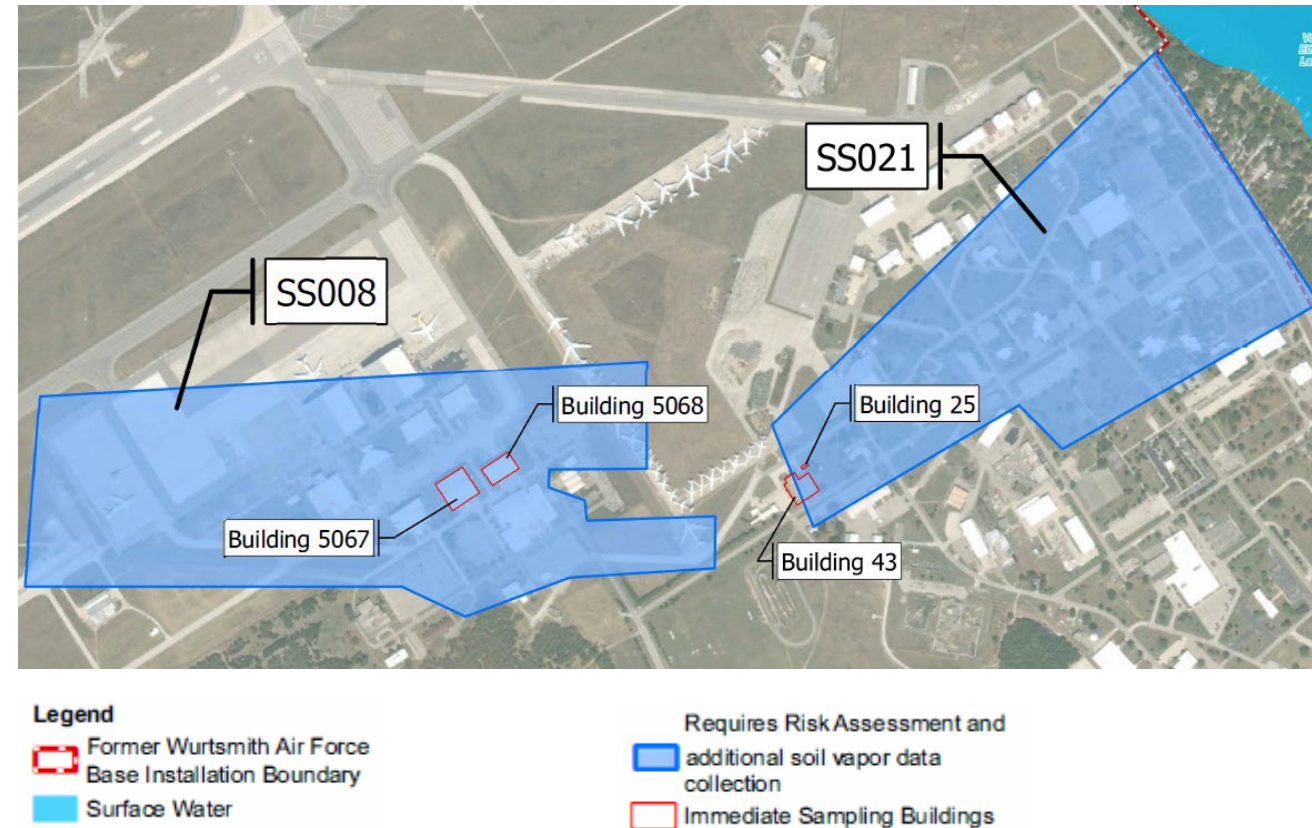
Vapor Intrusion Remedial Investigation



- **RI being conducted in response to high VOC levels in soil gas sampling conducted between May 2020 and Feb 2021**
- **RI contract awarded in Sep 2022 with a multipurpose scope of work:**
 - **Perform immediate sampling at four buildings identified by MDHHS**
 - **Define the nature and extent of VOCs**
 - **Assess risks to human health and the environment**
- **31 sites being investigated**
 - **Immediate sampling: Buildings 25, 43, 5067, and 5068 began in Aug 2023**
 - **Broader RI sampling upcoming in 2025**

Vapor Intrusion Remedial Investigation

- Immediate sampling task included:
 - Interior Building Surveys
 - Vapor Pin® installation and quarterly sampling
 - Indoor & outdoor air quality sampling based on sub-slab Vapor Pin® data
- DAF has shared the quarterly data with EGLE, OWAA and their tenants





Vapor Intrusion Remedial Investigation



- **Four quarters of sub-slab VP sampling have been completed:**
 - Building 25: 2 sub-slab VP locations
 - Building 43: 16 sub-slab VP locations
 - Building 5067: 23 sub-slab VP locations
 - Building 5068: 16 sub-slab VP locations
- **Based on Q1 results, three quarters of IAQ/OAQ sampling have been completed:**
 - Building 25: 1 IAQ sample location during Q2, and 2 IAQ sample locations during Q3/Q4 (one from basement, one from the main floor)
 - Building 43: 4 IAQ sample locations
 - Building 5067: 5 IAQ sample locations
 - Building 5068: No IAQ sample locations (no sub-slab VP exceedances until Q4)

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Vapor Intrusion Remedial Investigation



- **Collected & analyzed samples using EPA established methodology**
- **Project action levels:**
 - **Sub-slab VP data:**
 - EGLE Site-Specific Volatilization to Indoor Air Criteria (SSVIAC) - used primarily to determine the extent of contamination as part of the RI.
 - USEPA Vapor Intrusion Screening Levels (VISLs) - used primarily for long-term risk assessment purposes.
 - **IAQ data:**
 - USEPA VISLs for Indoor Air - used for long-term risk assessment purposes and to determine if further evaluation is warranted.
 - USEPA Removal Management Levels (RMLs) - used to assess whether interim response actions may be warranted (e.g., deploying fans/blowers, air purifying units, etc.).

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Vapor Intrusion Remedial Investigation



Q1-Q4 Immediate Sampling Results Summary

Building Number	Sub-slab	Indoor Air	Decision
SS021			
25	<ul style="list-style-type: none">- TCE exceeded USEPA VISL and EGLE SSVIAC.- Naphthalene exceeded EPA Commercial VISL and EGLE SSVIAC.	Three quarterly events conducted: <ul style="list-style-type: none">- TCE exceeded USEPA RML.- Naphthalene exceeded USEPA Commercial Carcinogenic VISL.	The VI pathway is potentially complete; however, there is no receptor present (building not occupied). Interim response action has been completed with access to the building restricted. Recommended to continue to RI and HHRA.
43	<ul style="list-style-type: none">- TCE exceeded USEPA Commercial VISL and EGLE SSVIAC.- Chloroform exceeded EPA Commercial VISL and EGLE SSVIAC.	Three quarterly events conducted: <ul style="list-style-type: none">- TCE exceeded USEPA Commercial Carcinogenic VISL.	The VI pathway is complete; however, TCE concentrations in IAQ samples are below USEPA RMLs, so no interim response action has been taken or is necessary. Recommended to continue to RI and HHRA.
SS008			
5067	<ul style="list-style-type: none">- TCE exceeded USEPA Commercial VISL and EGLE SSVIAC.- cis-1,2-DCE exceeded EGLE SSVIAC.	Three quarterly events conducted: <ul style="list-style-type: none">- No exceedances of the PALs.	The VI pathway is potentially complete. IAQ sample concentrations were below PALs, so no interim response action has been taken or is necessary. Recommended to continue to RI and HHRA.
5068	<ul style="list-style-type: none">- TCE exceeded USEPA Commercial VISL and EGLE SSVIAC.- 1,1,2-TCA exceeded EGLE SSVIAC. Both compounds only exceeded during the fourth quarter event.	No IAQ sampling was conducted due to no sub-slab VP exceedances during the first three events.	Fourth quarter data indicate the VI pathway potentially complete. Confirmation sampling of the sub-slab VPs with exceedances and collection of IAQ samples to determine the need for interim action was completed in October prior to continuing to RI and HHRA.

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Vapor Intrusion Remedial Investigation



Next Steps:

- **Quarterly summary reports have been prepared and submitted to project stakeholders (e.g., EGLE, airport, tenants).**
 - **An addendum will be completed for the Q4 report for Building 5068**
- **Additional field activities will continue as part of the overall remedial investigation**
- **After the remedial investigation field work is done the DAF will evaluate unacceptable long-term risks in the Risk Assessment phase of the CERCLA process.**
- **If an unacceptable long-term risk is identified, then DAF will conduct a feasibility study to determine a long-term solution to reduce the risk to the community and the environment.**



Vapor Intrusion Remedial Investigation



- **In addition to the Immediate Sampling Task, the Overall VI RI is in progress.**
 - **Uniform Federal Policy (UFP)-Quality Assurance Project Plan (QAPP) Addendum 1 was prepared to detail proposed VI RI activities for six additional sites (WP004, OT024, LF030/031, SS057, ST069, and SS072).**
 - **UFP-QAPP Addendum 2 is in progress to summarize the results of Phase 1 PSG Sampling activities at the three sites (Site 5, 8, and 21) and the AOIs and proposed Phase 2 Soil and Groundwater Sampling activities.**
 - **The field activities and results from Phase 1 activities at the additional sites and the Phase 1 activities at the original sites will be briefed at a future RAB Meeting.**



Project Forecasts

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Short Range Forecast



PFAS Remedial Investigation thru Remedial Action	Calendar Year					
	2024		2025			
	Q3	Q4	Q1	Q2	Q3	Q4
RI Transducer Monitoring	■	■	■	■	■	■
Preliminary Characterization Summary Report	■	■	■	■		
RI Data Gap Scoping and Contract Award	■	■	■			
RI UFP-QAPP Addendum for Data Gap Investigation			■	■		
RI Data Gap Fieldwork					■	■
Alert Aircraft Area IRA Construction	■	■				
Alert Aircraft Area IRA Operations and Maintenance			■	■	■	■
Three Pipes Ditch Monitoring	■	■	■	■	■	■
DRMO Scoping and Contract Award	■	■				
DRMO and LF030/031 Pre-Design Investigation Work Planning		■	■	■	■	
DRMO and LF030/031 Pre-Design Investigation Fieldwork					■	■

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Long Range Forecast PFAS RI thru RA



PFAS Remedial Investigation thru Remedial Action	Calendar Year																							
	2024				2025				2026				2027				2028				2029			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Preliminary Characterization Summary Report																								
RI Data Gap Scoping and Contract Award																								
RI Data Gap Investigation QAPP Addendum																								
RI Data Gap Investigation Fieldwork																								
RI Report with Risk Assessment																								
Feasibility Study																								
Proposed Plan(s)																								
Record(s) of Decision																								
Remedial Designs																								
Remedial Actions																								

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Long Range Forecast DRMO & LF030/031 IRA



DRMO and LF030/031 IRA	Calendar Year																							
	2024				2025				2026				2027				2028				2029			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Scoping and Contract Award																								
Pre-Design Investigation																								
Conceptual Design																								
Detailed Design																								
Proposed Plan																								
Interim Record of Decision																								
Work Plan																								
Construction																								
Operations and Maintenance																								

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Long Range Forecast

3-Pipes Ditch IRA



3-Pipes Ditch IRA	Calendar year																							
	2024				2025				2026				2027				2028				2029			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Scoping and Contract Award																								
Pre-Design Investigation																								
Conceptual Design																								
Detailed Design																								
Proposed Plan																								
Interim Record of Decision																								
Work Plan																								
Construction																								
Operations and Maintenance																								

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Long Range Forecast Wastewater Treatment Plant IRA



WWTP IRA	Calendar year																							
	2024				2025				2026				2027				2028				2029			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Scoping and Contract Award																								
Pre-Design Investigation																								
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RAB Member Questions

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Public Comment Period



Guidelines

- 01** | **Indicate you want to make a comment (follow guidance)**
- 02** | **Wait until the facilitator states you can start your comment**
- 03** | **Three minute time limit**

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Public Comments

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Conclusion

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Upcoming RAB Meeting



- **Future RAB meeting schedule**

- **19 Feb 2025**
- **21 May 2025**
- **20 Aug 2025**
- **19 Nov 2025**

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Adjournment



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Backup



Restoration Advisory Board Rules



01	Respect one another and maintain an atmosphere of open dialogue and exchange of ideas
02	Use our time together efficiently, wisely and respectfully
03	Speak clearly and succinctly one person at a time; avoid interrupting others
04	Listen and remain open to different points of view
05	Maintain a propensity for progress: prepare, discuss, document and move forward
06	Share information early, openly and honestly
07	Accurately and objectively relay to others the discussions that occur at board meetings

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Acronyms

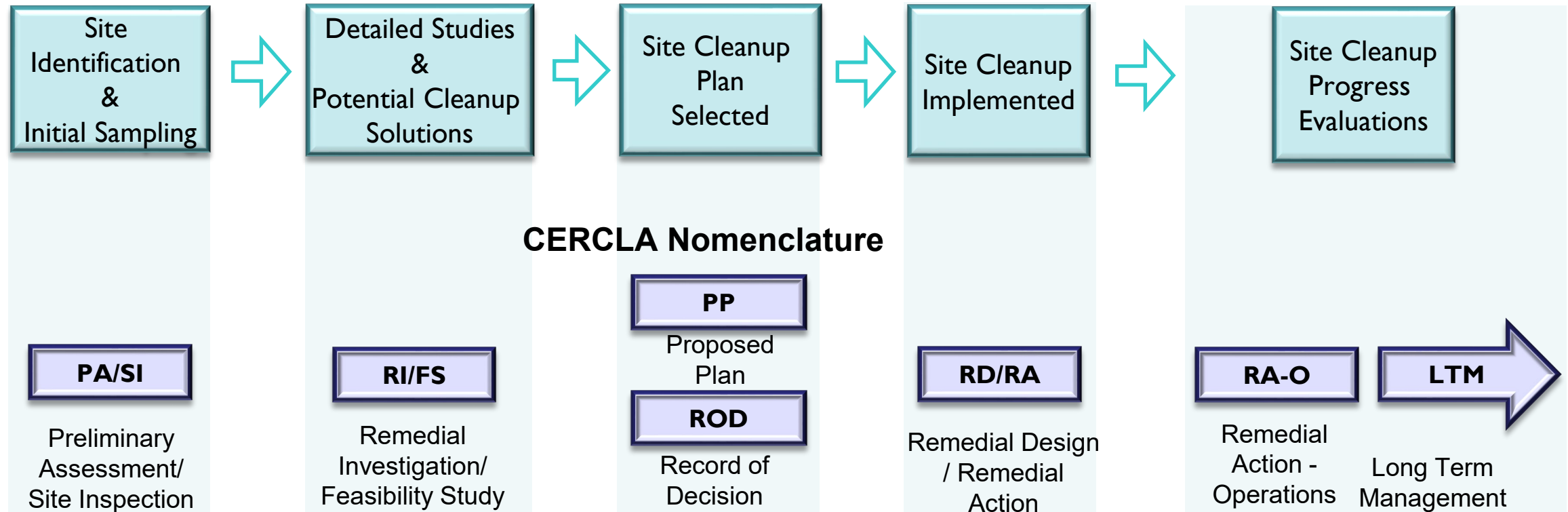


AAA	Alert Aircraft Area	PSG	passive soil gas
AFB	Air Force Base	PTS	pump and treatment system
AFCEC	Air Force Civil Engineer Center	QAPP	Quality Assurance Project Plan
AFFF	aqueous film forming foam	RA	remedial action
AG	Attorney General	RAB	restoration advisory board
ARAR	Applicable or Relevant and Appropriate Requirements	RA-O	remedial action operation
BCT	BRAC Cleanup Team	RD	remedial design
BECOS	BRAC Environmental Construction and Optimization Services	RI	remedial investigation
BOA	base operations area	ROD	record of decision
BRAC	Base Realignment and Closure	RSL	regional screening level
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	SI	site inspection
CSM	conceptual site model	TAPP	Technical Assistance for Public Participation
CTS	Central Treatment System	TCRA	time critical removal action
DAF	Department of the Air Force	USEPA	U.S. Environmental Protection Agency
DOD	Department of Defense	VEL	Van Etten Lake
DRMO	Defense Reutilization and Marketing Office	VI	vapor intrusion
EGLE	Michigan Dept of Environment, Great Lakes, and Energy	VOC	volatile organic compounds
ESTCP	Environmental Security Technology Certification Program	WRD	Water Resources Division
FS	feasibility study	WWTP	wastewater treatment plant
IRA	interim remedial action	µg/kg	micrograms per kilogram
IROD	interim record of decision		
LTM	long-term management		
MCL	Maximum Contaminant Levels		
MDHHS	Michigan Department of Health and Human Services		
MDNR	Michigan Department of Natural Resources		
MMRP	Military Munitions Response Program		
NCP	National Contingency Plan		
ng/L	nanograms per liter		
PA	preliminary assessment		
PAL	project action limit		
PFAS	per-and polyfluoroalkyl substances		
PFOA	perfluorooctanoic acid		
PFOS	perfluorooctane sulfonate		
PFHxS	perfluorohexane sulfonic acid		
PFNA	perfluorononanoic acid		
PP	proposed plan		

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CERCLA Overview



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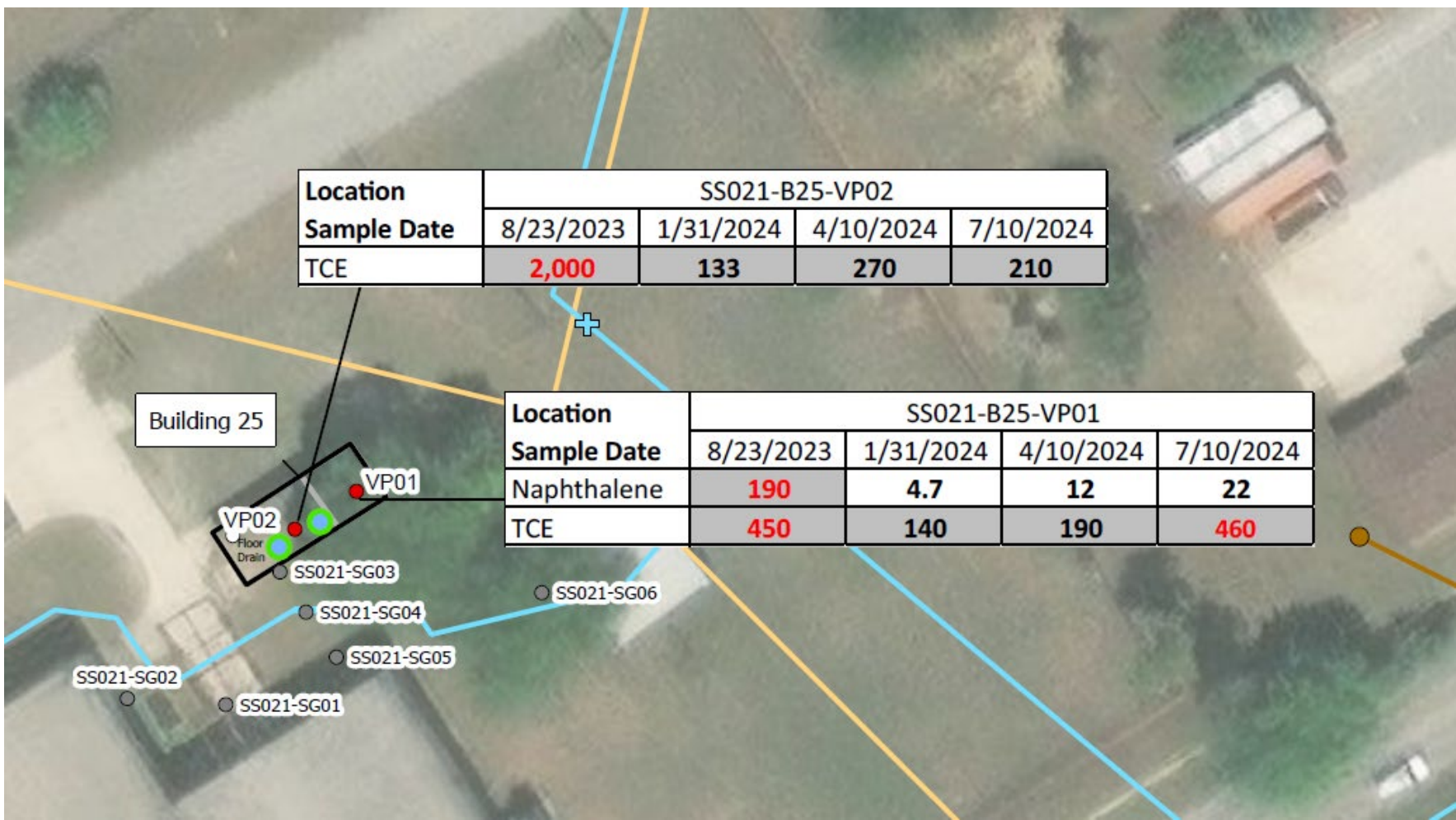
Vapor Intrusion RI Figures



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SS021 - Bldg. 25 Sub-Slab VP Results, Q1 – Q4



Project Action Levels		
Analyte	EGLE Nonresidential	USEPA Commercial
	SSVIAC ¹	VISL ²
Naphthalene	120	120
TCE	130	292

Legend

- Building Boundary
- Interior Rooms
- Existing Soil Gas Well Locations
- Sub-Slab Vapor Pin - Exceedance
- IAQ Location
- Building 25 Features
- Water Valve
- Storm Sewer Manhole
- Sanitary Manhole
- Water Main
- Storm Sewer Main
- Sanitary Sewer Main

Notes:

Figure displays only the analytes that were above project action levels.

Results are in micrograms per cubic meter.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Bold indicates the analyte was detected

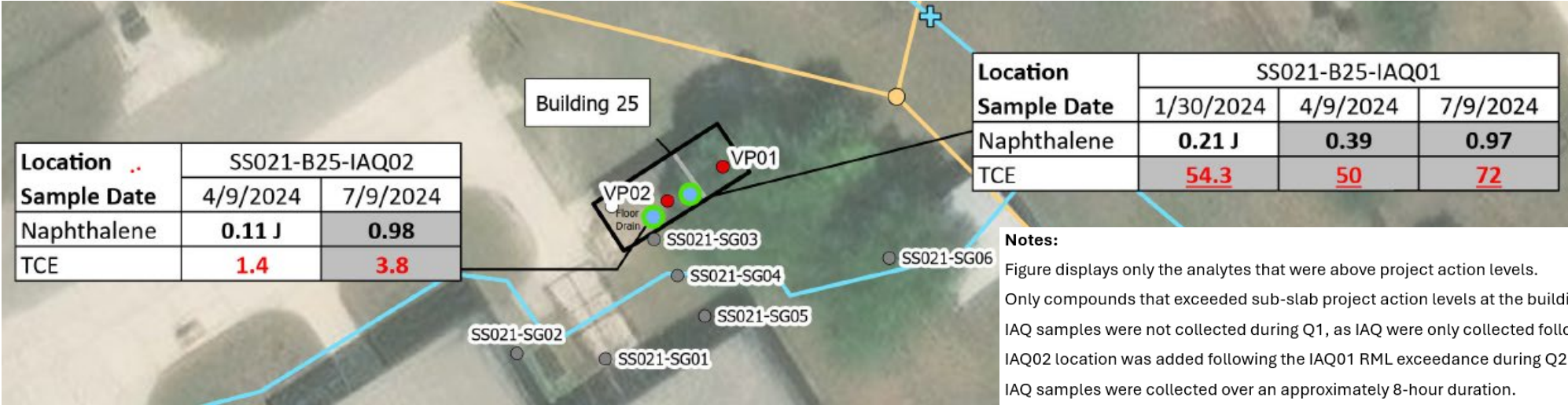
Shading indicates the analyte exceeded EGLE Nonresidential SSVIAC

Red Text indicates the analyte exceeded USEPA Commercial VISLs



SS021 - Bldg. 25 IAQ Results, Q2 – Q4

Project Action Levels				
Analyte	USEPA Commercial Carcinogenic VISLs ¹	USEPA Commercial Noncarcinogenic VISLs ¹	USEPA RML - Carcinogenic ²	USEPA RML - Noncarcinogenic ²
Naphthalene	0.361	1.31	36.1	39.4
TCE	2.99	0.876	299	26.3



- Legend**
 - Building Boundary
 - Interior Rooms
 - Existing Soil Gas Well Locations
 - Sub-Slab Vapor Pin - Exceedance
- IAQ Location
 - Building 25 Features
 - Water Valve
 - Storm Sewer Manhole
 - Sanitary Manhole
- Water Main
 - Storm Sewer Main
 - Sanitary Sewer Main

Notes:

Figure displays only the analytes that were above project action levels.

Only compounds that exceeded sub-slab project action levels at the building are shown.

IAQ samples were not collected during Q1, as IAQ were only collected following a sub-slab soil gas sample exceedance.

IAQ02 location was added following the IAQ01 RML exceedance during Q2

IAQ samples were collected over an approximately 8-hour duration.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Results are in micrograms per cubic meter.

Bold indicates the analyte was detected

Shading indicates the analyte exceeded USEPA Commercial VISLs - Carcinogenic

Red Text indicates the analyte exceeded USEPA Commercial VISLs - Noncarcinogenic

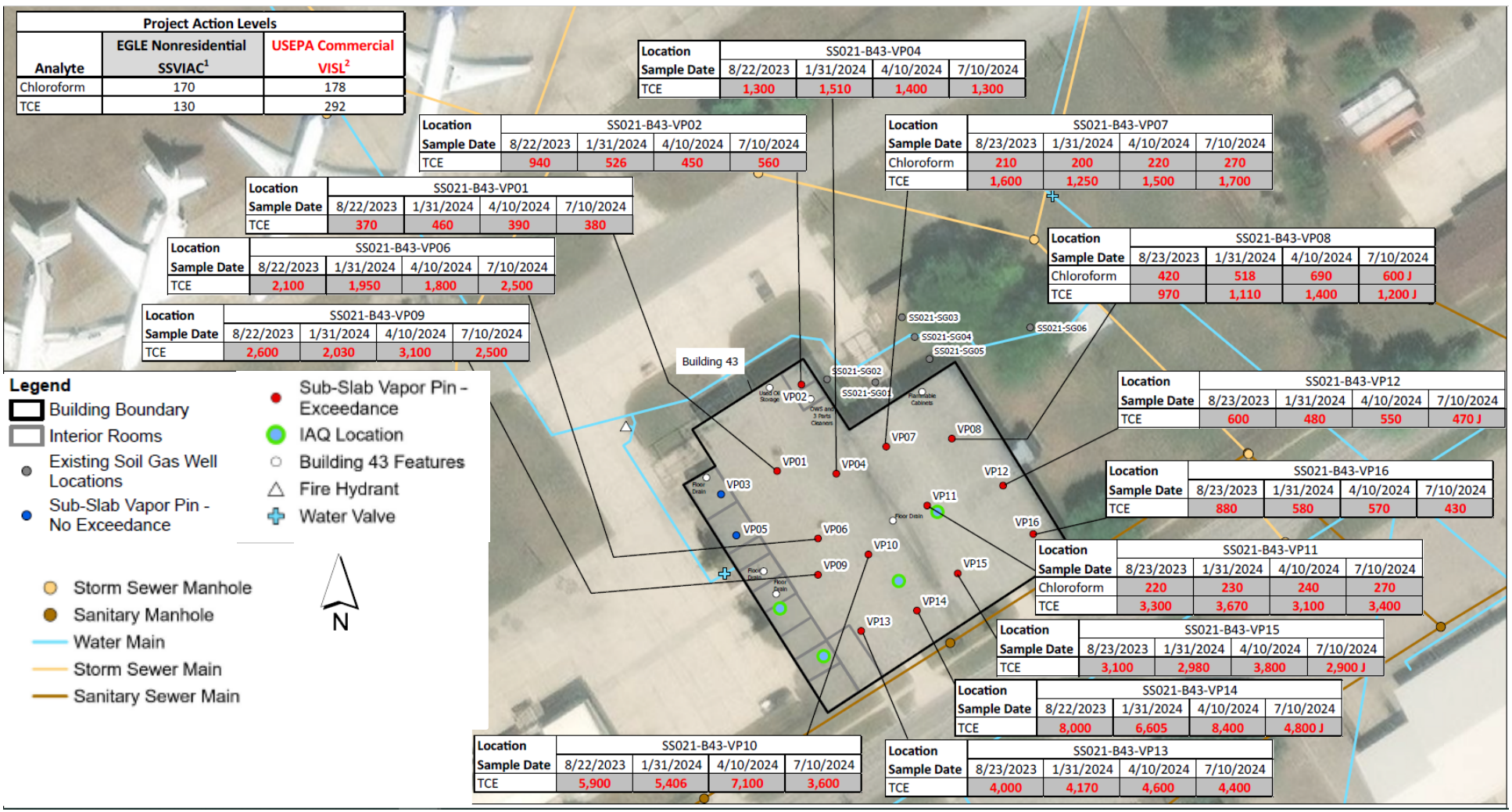
Italic indicates analyte exceeded USEPA RML - Carcinogenic

Underline indicates analyte exceeded USEPA RML - Noncarcinogenic

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SS021 - Bldg. 43 Sub-Slab VP Results, Q1 – Q4



Notes:

Figure displays only the analytes that were above project action levels.

Results are in micrograms per cubic meter.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Bold indicates the analyte was detected

Shading indicates the analyte exceeded EGLE Nonresidential SSVIAC

Red Text indicates the analyte exceeded USEPA Commercial VISLs

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SS021 - Bldg. 43 IAQ Results, Q2 – Q4

Notes:

Figure displays only the analytes that were above project action levels.
Only compounds that exceeded sub-slab project action levels at the building are shown.
IAQ samples were not collected during Q1, as IAQ were only collected following a sub-slab soil gas sample exceedance.
IAQ samples were collected over an approximately 8-hour duration.
For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.
Results are in micrograms per cubic meter.

Bold indicates the analyte was detected

Shading indicates the analyte exceeded USEPA Commercial VISLs - Carcinogenic

Red Text indicates the analyte exceeded USEPA Commercial VISLs – Noncarcinogenic

Italic indicates analyte exceeded USEPA RML – Carcinogenic

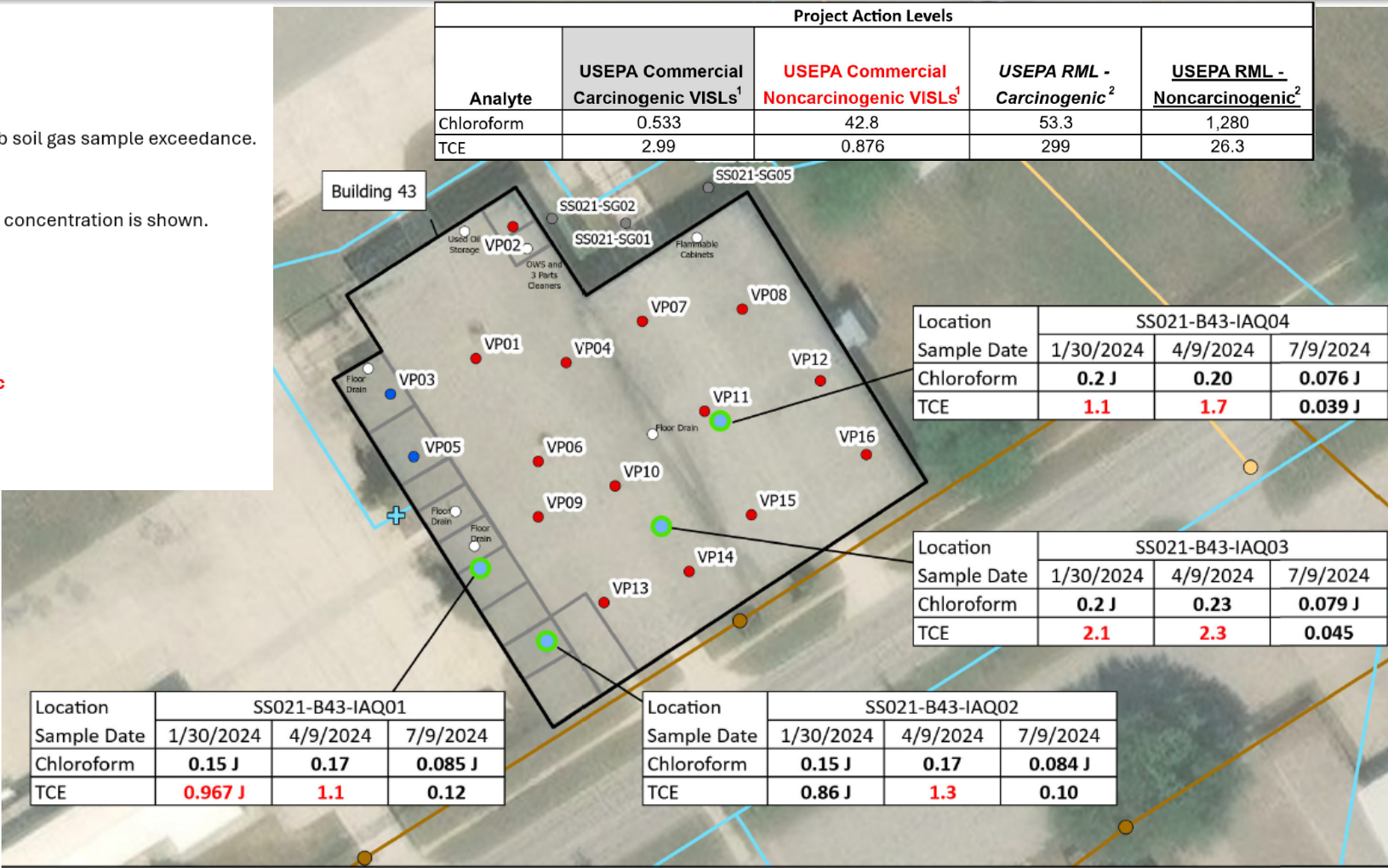
Underline indicates analyte exceeded USEPA RML - Noncarcinogenic

Legend

- Building Boundary
- Interior Rooms
- Existing Soil Gas Well Locations
- Sub-Slab Vapor Pin - No Exceedance
- Sub-Slab Vapor Pin - Exceedance
- IAQ Location
- Building 43 Features
- Fire Hydrant
- Water Valve
- Storm Sewer Manhole
- Sanitary Manhole
- Water Main
- Storm Sewer Main
- Sanitary Sewer Main



Project Action Levels				
Analyte	USEPA Commercial Carcinogenic VISLs ¹	USEPA Commercial Noncarcinogenic VISLs ¹	USEPA RML - Carcinogenic ²	USEPA RML - Noncarcinogenic ²
Chloroform	0.533	42.8	53.3	1,280
TCE	2.99	0.876	299	26.3



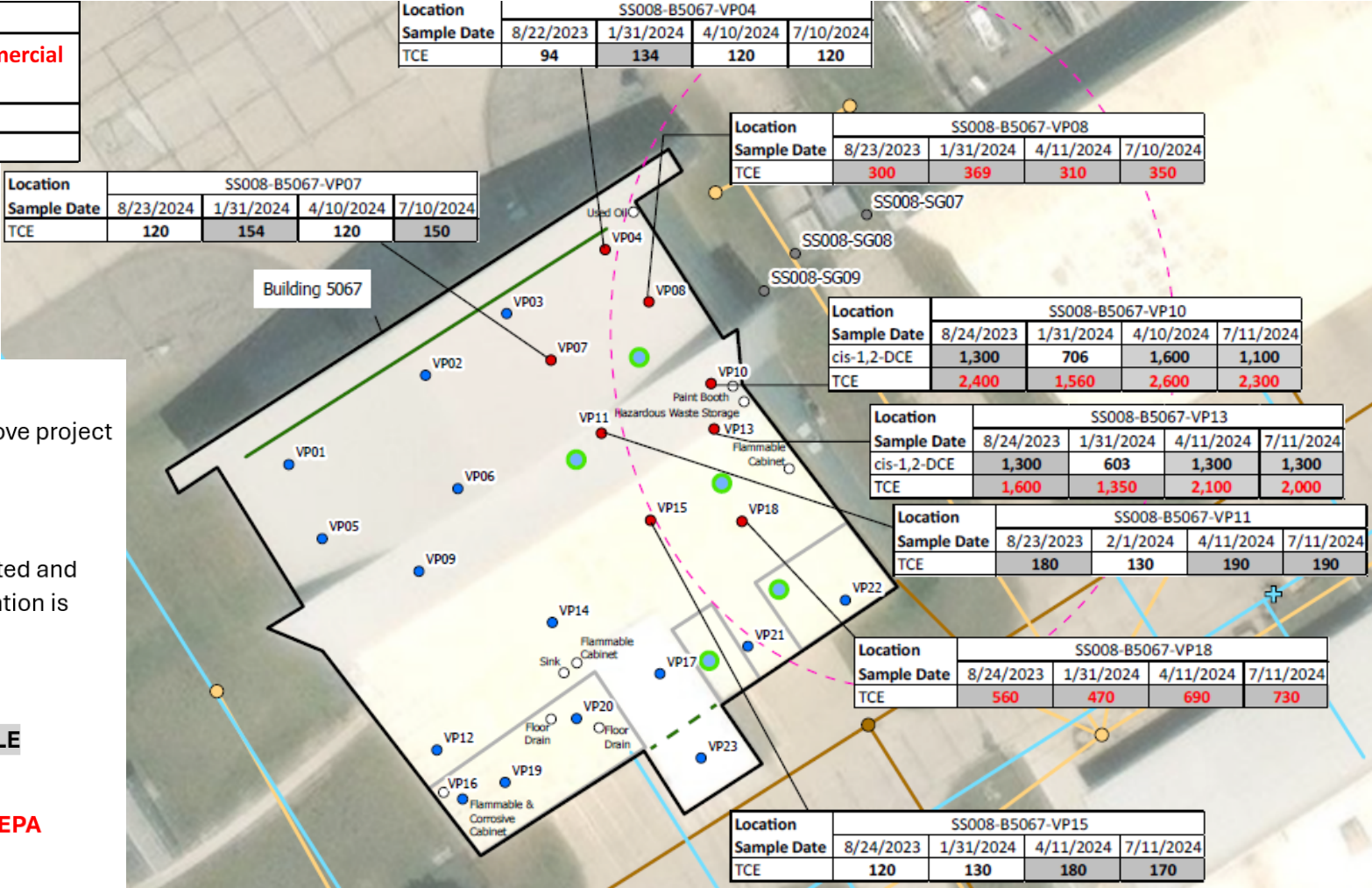
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SS008 - Bldg. 5067 Sub-Slab VP Results, Q1 – Q4



Project Action Levels		
Analyte	EGLE Nonresidential SSVIAC ¹	USEPA Commercial VISL ²
cis-1,2-DCE	820	5,840
TCE	130	292



- Legend**
- Building Boundary
 - Interior Rooms
 - PCE SG Impacts (1995)
 - Existing Soil Gas Well Locations
 - Sub-Slab Vapor Pin - No Exceedance
 - Sub-Slab Vapor Pin - Exceedance
 - IAQ Location
 - Building 5067 Features
 - Fire Hydrant
 - Water Valve
 - Storm Sewer Manhole
 - Sanitary Manhole
 - Trench Drain
 - Utility Trench
 - Water Main
 - Storm Sewer Main
 - Sanitary Sewer Main

Notes:

Figure displays only the analytes that were above project action levels.

Results are in micrograms per cubic meter.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Bold indicates the analyte was detected

Shading indicates the analyte exceeded EGLE Nonresidential SSVIAC

Red Text indicates the analyte exceeded USEPA Commercial VISLS

Your Success is Our Mission!



SS008 - Bldg. 5067 IAQ Results, Q2 – Q4

Project Action Levels				
Analyte	USEPA Commercial Carcinogenic VISLs ¹	USEPA Commercial Noncarcinogenic VISLs ¹	USEPA RML - Carcinogenic ²	USEPA RML - Noncarcinogenic ²
cis-1,2-DCE	NS	17.5	NS	526
TCE	2.99	0.876	299	26.3

SS008-B5067-IAQ01				
Location	Sample Date	1/30/2024	4/9/2024	7/9/2024
cis-1,2-DCE		0.091 U	0.32 U	0.13 U
TCE		0.12 U	0.12 J	0.13 UJ

SS008-B5067-IAQ02				
Location	Sample Date	1/30/2024	4/9/2024	7/9/2024
cis-1,2-DCE		0.091 U	0.29 U	0.14 U
TCE		0.12 U	0.22 J	0.14 UJ

SS008-B5067-AQ03				
Location	Sample Date	1/30/2024	4/9/2024	7/9/2024
cis-1,2-DCE		0.12 J	0.33 U	0.39 U
TCE		0.12 U	0.33 U	0.39 UJ

SS008-B5067-IAQ05				
Location	Sample Date	1/30/2024	4/9/2024	7/9/2024
cis-1,2-DCE		0.091 U	0.14 U	0.067 U
TCE		0.12 U	0.074 J	0.027 J

SS008-B5067-IAQ04				
Location	Sample Date	1/30/2024	4/9/2024	7/9/2024
cis-1,2-DCE		0.091 U	0.33 U	0.031 U
TCE		0.12 U	0.33 U	0.045

Legend

Building Boundary

Interior Rooms

PCE SG Impacts (1995)

Existing Soil Gas Well Locations

Sub-Slab Vapor Pin - No Exceedance

Sub-Slab Vapor Pin - Exceedance

IAQ Location

Building 5067 Features

Fire Hydrant

Water Valve

Storm Sewer Manhole

Sanitary Manhole

Trench Drain

Utility Trench

Water Main

Storm Sewer Main

Sanitary Sewer Main



Notes:

Figure displays only the analytes that were above project action levels.

Only compounds that exceeded sub-slab project action levels at the building are shown.

IAQ samples were not collected during Q1, as IAQ were only collected following a sub-slab soil gas sample exceedance.

IAQ samples were collected over an approximately 8-hour duration.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Results are in micrograms per cubic meter.

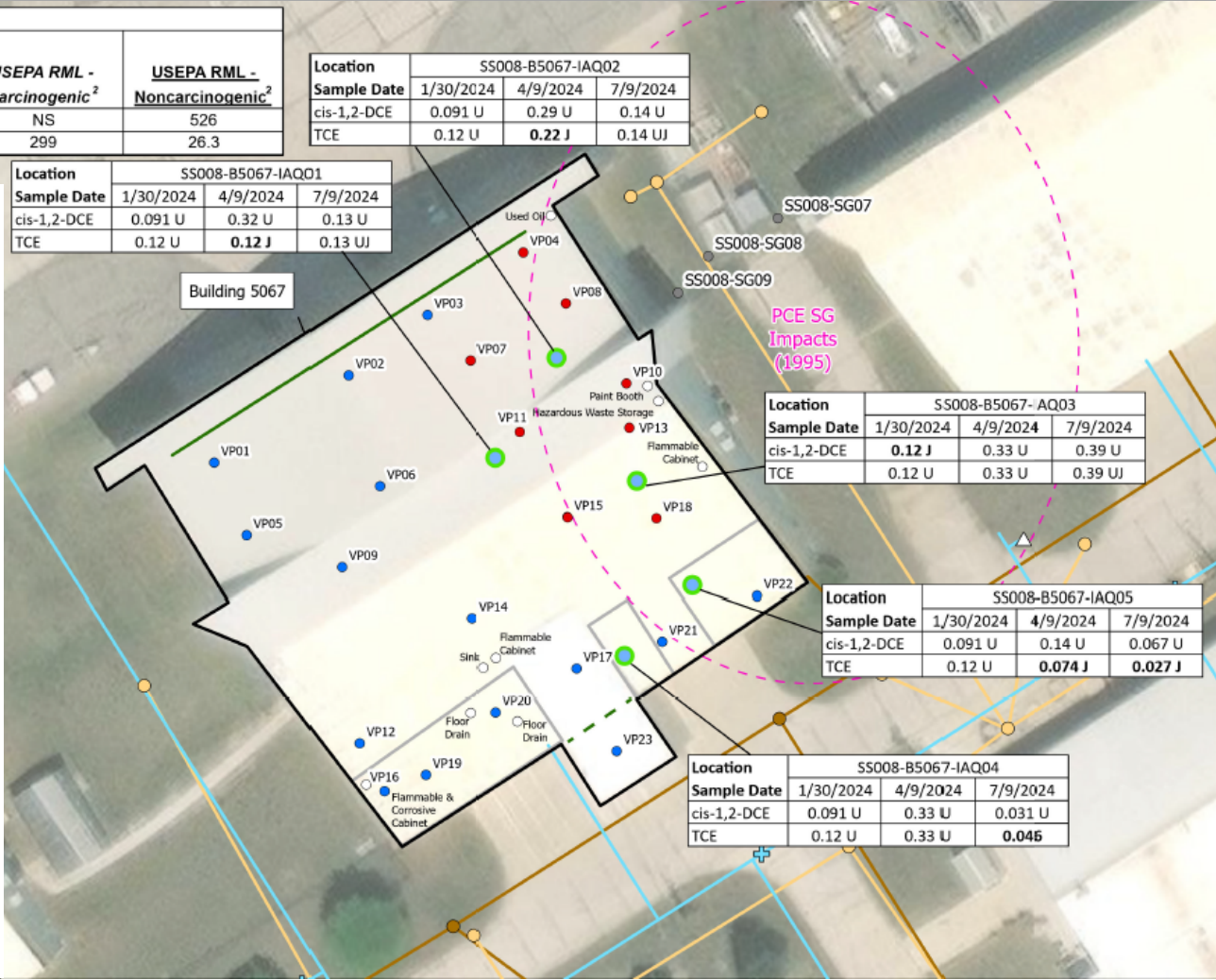
Bold indicates the analyte was detected

Shading indicates the analyte exceeded USEPA Commercial VISLs - Carcinogenic

Red Text indicates the analyte exceeded USEPA Commercial VISLs – Noncarcinogenic

Italic indicates analyte exceeded USEPA RML – Carcinogenic

Underline indicates analyte exceeded USEPA RML - Noncarcinogenic





SS008 - Bldg. 5068 Sub-Slab VP Results, Q1 – Q4



Project Action Levels		
Analyte	EGLE Nonresidential SSVIAC ¹	USEPA Commercial VISL ²
1,1,2-TCA	20	29.2
TCE	130	292

Notes:

Figure displays only the analytes that were above project action levels.

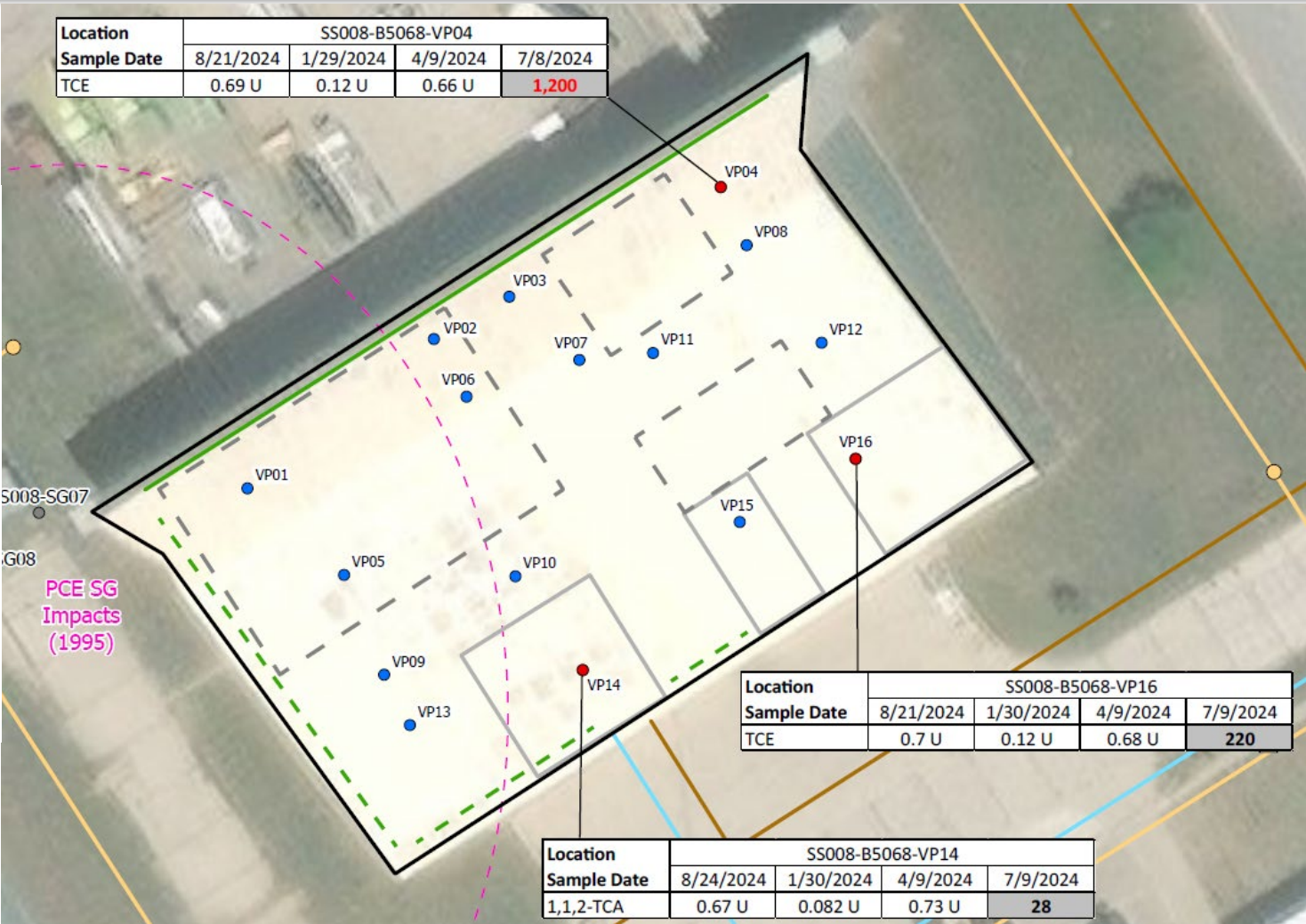
Results are in micrograms per cubic meter.

For sample where a field duplicate was collected and analyzed, the result with the greater concentration is shown.

Bold indicates the analyte was detected

Shading indicates the analyte exceeded EGLE Nonresidential SSVIAC

Red Text indicates the analyte exceeded USEPA Commercial VISLs





Technical Assistance for Public Participation

Facilitating public participation and understanding of environmental cleanup



Introduction to TAPP

Technical Assistance
for Public Participation



Technical Assistance for Public Participation

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Purpose of Presentation

- The purpose of this presentation is to provide Restoration Advisory Board (RAB) members an overview of the Defense Environmental Restoration Program's (DERP) TAPP program.
- This presentation consolidates the information from existing authorities into a single, simplified reference document.
- TAPP is codified in the following regulations and policies:
 - 10 United States Code Section 2705
 - 32 Code of Federal Regulations part 203
 - DoD Manual 4715.20 "Defense Environmental Restoration Program"



Technical Assistance for Public Participation

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Public participation in environmental cleanups

Since 1994, RABs¹ have been established at more than 300 military installations to facilitate open communication and understanding between local community members and installations being cleaned up under DERP.

RABs provide a collaborative forum for community members, government agencies, tribes, and installation decision makers to discuss and identify the most efficient and productive means to restore the environment.

People from the community, who are affected by environmental cleanup activities at a specific installation, may join a RAB to exchange information with representatives of the regulatory agencies, the installation, and the community.

¹Including Technical Review Committees (TRCs), where applicable.



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Public participation in environmental cleanups

- Cleanups can be very complex and technical. RAB-members may feel they need help with understanding cleanup-related activities or terminology used by scientific and technical experts.
- DoD provides RABs with a way to obtain technical assistance during cleanups.
- The program is called Technical Assistance for Public Participation, or TAPP.





Technical Assistance for Public Participation

Facilitating public participation and understanding of environmental cleanup



What is the TAPP Program?

- TAPP is a DoD program that provides technical assistance to RAB members and the public in order to better understand the complexities of environmental cleanups.
- The TAPP Program helps encourage public participation in the DoD's environmental restoration programs, by helping RAB members better understand the technical aspects of the cleanup.
- Eligible TAPP projects include technical assistance with interpreting technical documents into plain language, assessing technologies, explaining risk assessments and/or health assessments, or training, as requested by the RAB.
- Community members, who are members of a RAB, are eligible to apply for technical assistance under TAPP.



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Why was the TAPP Program started?



To enhance the public's ability to provide input into the cleanup process by providing technical assistance to the RAB's community members.



To facilitate a broader awareness of the cleanup process and understanding of the scientific and engineering issues underlying environmental restoration.



To strengthen the RAB's ability to be a stronger partner that is more effective in reviewing, commenting, and participating in the cleanup process, with the end goal of achieving community acceptance of the proposed remedy.





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Why would our RAB apply for TAPP?

Discuss the following questions:

- Would technical assistance help your RAB gain a better understanding of the technical issues associated with the cleanup?
- Would it help your RAB to have a technical expert read through technical documents and report back to the RAB on the content of the document in non-technical language?
- Would it help your RAB to have an expert read through the Risk Assessment and report back to the RAB with a non-technical explanation of the health risks to the community?



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Why would our RAB apply for TAPP? (cont.)

- Would it help your RAB to receive training on concepts such as how contaminants move through groundwater, how risk assessments are performed, how potential remedies are evaluated, how plume maps are created, etc.?
- Would a technical expert help your RAB provide better input to the installation so the installation understands which proposed remedies the community favors?
- Would a technical expert help the RAB understand better the technical aspects of the project in a way that would lead to community acceptance?

If you answered “yes” to any of these questions, your RAB may benefit from TAPP.



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What activities are eligible for TAPP funding?



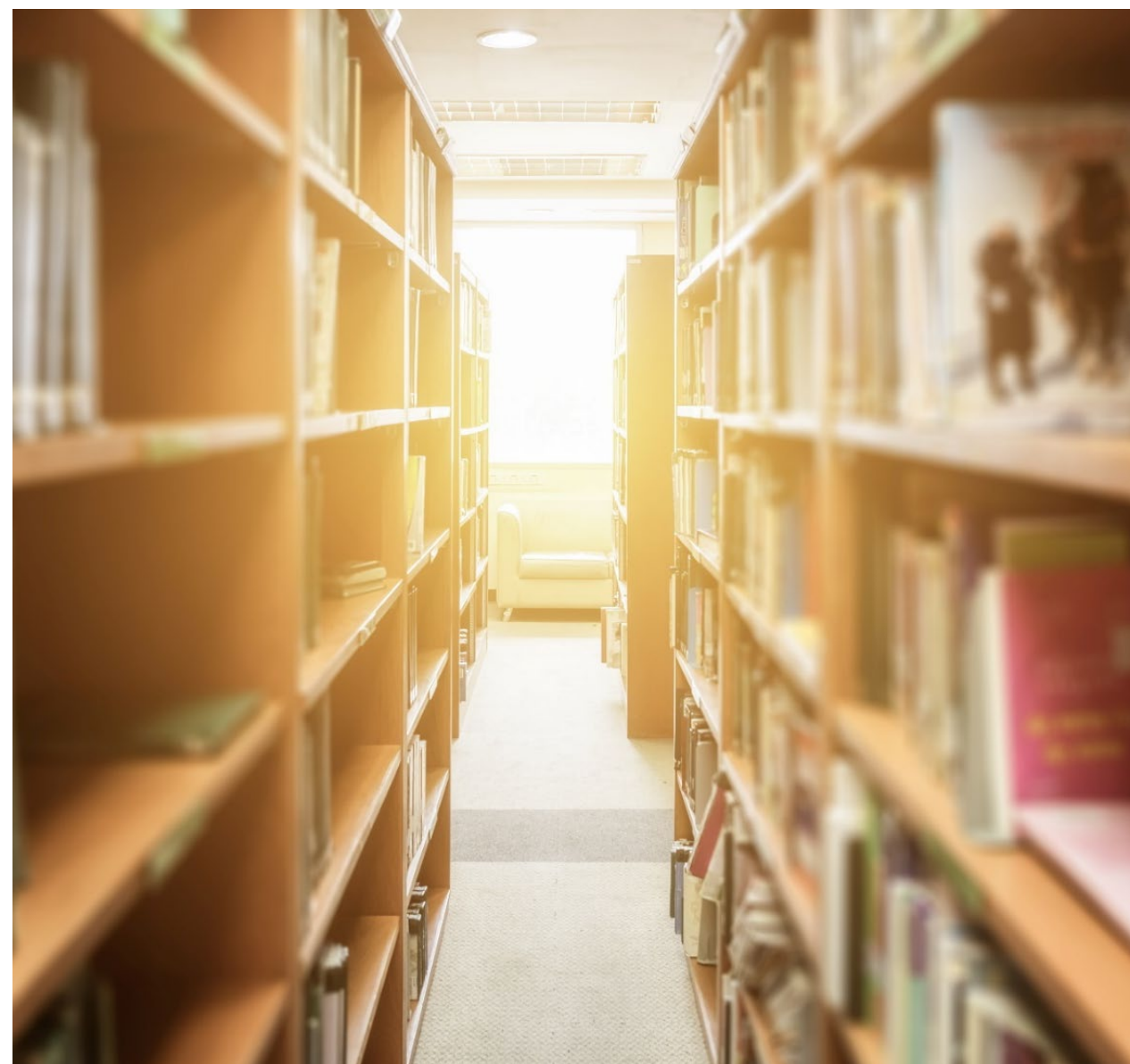
Interpretation of technical jargon in the environmental cleanup/remediation reports.



Simplified information or training by a technical expert to explain cleanup/remediation technologies and related topics.



Helping RAB members understand the overall environmental remediation process and how it relates to protecting human health.





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What activities are NOT eligible for TAPP funding?



Litigation or paying for attorney fees



Generation of new data and more sampling



Political activities or lobbying



Reopening final DoD decisions



Public outreach activities



Epidemiology or health studies



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Is there a dollar limit for TAPP funding?

- Up to \$25,000 may be awarded for TAPP assistance per fiscal year at a particular installation/location.
- Up to \$100,000 may be awarded for TAPP assistance over the life of the restoration program at a particular installation/location.
- Waivers to exceed these limits, or appeal the DoD's decision on a TAPP request, are available, if necessary.

More information on TAPP funding limits, waivers, and appeals can be found starting on page 84 of DoD Manual 4715.20, accessible through the link below:



<https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodm/471520m.pdf>



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Have alternate sources been considered before applying?

The RAB must discuss using alternate sources prior to applying for TAPP. A few common resources include:

1. Installation cleanup support contractor
2. Federal, state, and local regulatory staff
3. Local university resource staff
4. RAB members
5. National/regional resources

It is up to the RAB to examine other sources of assistance. If the RAB determines other sources are not viable, the RAB can apply for TAPP.





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Other programs available for consideration

If your RAB does not have access to technical assistance through TAPP, the Environmental Protection Agency (EPA) has similar programs that may be available:

- Technical Assistance Grant (TAG)
- Technical Assistance Services for Communities (TASC)
- Technical Assistance Plan (TAP)

Follow the links below to review information on each program.



TAG: <https://www.epa.gov/superfund/technical-assistance-grant-tag-program>



TASC: <https://www.epa.gov/superfund/technical-assistance-services-communities-tasc-program>



TAP: <https://www.epa.gov/superfund/technical-assistance-plan-tap>



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What are the reporting requirements?

The technical assistant carries the majority of the reporting requirements.

- Periodic progress reports, financial status reports and materials prepared for the contract. Specified in the contract.
- At the conclusion of the contract, a final report including documentation of TAPP project activities over the entire period of support and a description of the achievements with respect to the stated TAPP project purposes and objectives.

At the completion of the contract, the RAB's community point of contact must submit a report with the following information:

- A description of the TAPP project.
- A summary of services and products received.
- A statement regarding the overall satisfaction of the RAB with the quality of service and/or products received.



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When should RABs apply for technical assistance?

- The RAB should consider when technical assistance will be needed and time its application accordingly. For example, is there a DoD action related to the investigation or cleanup for which the RAB could use assistance through TAPP?
- The Community Co-chair should work closely with the Installation Co-chair to determine the timing of these actions and the project start date, and apply for TAPP as soon as possible to ensure technical assistance will be available when needed.
- It is important to note that it may take the installation time to process the TAPP application and award the contract for technical assistance.



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How does our RAB start the TAPP application process?



Document your majority decision to request TAPP funding at your next RAB/TRC meeting. Record your vote in the meeting minutes and attach the meeting minutes to the application.



Notify the Installation Co-chair with your intent to pursue TAPP funds.



Fill out the official TAPP Application. Click [here](#) to download the application.



Reference the [Practical Guide](#) for detailed instructions on completing the application or click [here](#) for a presentation version of application instructions.

TECHNICAL ASSISTANCE FOR PUBLIC PARTICIPATION (TAPP) APPLICATION		OMB No. 0704-0392 OMB approval expires Nov 30, 2025
<small>The public reporting burden for this collection of information, 0704-0392, is estimated to average 4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Project Director (0704-0187), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</small>		
RETURN COMPLETED FORM TO INSTALLATION LISTED IN SECTION I, BLOCK 1.		
SECTION I - TAPP REQUEST SOURCE IDENTIFICATION DATA		
1. INSTALLATION Installation Name		
2. SOURCE OF TAPP REQUEST (Name of Restoration Advisory Board (RAB) or Technical Review Committee (TRC)) Installation RAB		
3. CERTIFICATION OF MAJORITY REQUEST See attached meeting minutes/vote		4. DATE OF REQUEST (YYYYMMDD) 20230731
5. RAB POINT OF CONTACT		
a. NAME (Last, First, Middle Initial) Smith, John A.	b. ADDRESS (Street, Apt. or Suite Number, City, State, ZIP Code) 1234 Anywhere Street Bumville, MA 45454	
c. TELEPHONE NUMBER (Include Area Code) 555-555-5555		
SECTION II - TAPP PROJECT DESCRIPTION		
6. PROJECT TITLE Independent Interpretation of Technical Documents by Local Experts		
7. PROJECT TYPE (Data Interpretation, Training, etc.) Data & Technical Document Interpretation		
8. PROJECT PURPOSE AND DESCRIPTION (State anticipated goals of project and relate to increased understanding/participation in restoration process at the installation. Include descriptions, locations, and timetables of products or services requested.) Purpose: To educate RAB members about the Installation Name-related PFAS contamination, in preparation for the RI work plan review. Description: Review the Final Expanded Site Inspection Report for PFAS (document, 2020), MA DEP NOES, and Private Well Sampling Results (2017-Present), Final Phase I Regional Site Inspection Report for Perfluorinated Compounds (Company, 2018), and Final Perfluorinated Compounds Preliminary Assessment Site Visit Report (Company, 2006). Provide RAB members a report and presentation with Q&A of independent interpretation and summary of the conclusions including, but not limited to, extracting and explaining what has been found out about the plume(s), characteristics, size/fate/transport/migration/profile/etc. Provide the RAB with progress reports at regular RAB meetings, and a final report and presentation by September 30, 2024.		
9. STATEMENT OF ELIGIBILITY (Refer to eligibility criteria in 32 CFR Section 203.10 and 203.11 of TAPP rule. Note other sources that were considered for this support and state reasons why these sources are inadequate.) This project is listed as eligible under 32 CFR Section 203.10(b)(1) "Interpret Technical Documents [...] Technical assistance may be provided to review plans and interpret technical reports for community members of RABs and TRCs. These reports include, but are not limited to: (i) installation restoration program site studies, engineering documents, such as site inspections..." Residents and these other experts have already been donating their time and talents toward educating the community about this contamination. The complexity and volume of work is overwhelming for the spare time that can be donated; therefore, their time needs to be compensated in an official capacity to achieve the goal of RAB education and readiness so the RAB members can be full participants in the cleanup process.		
10. ADDITIONAL QUALIFICATIONS OR CRITERIA TO BE CONSIDERED (Additional qualifications (beyond those specified in Section 203.12) a provider should demonstrate to perform the project to the satisfaction of the RAB/TRC. Attach separate statement, if necessary.) The attached documents list the ways in which the experts are impeccably qualified under 32 CFR Section 203.12. Further, these experts have been providing this assistance to the community on a volunteer basis; it is not justifiable for them to continue providing this service without being compensated. They have earned the respect of the community, have clear command of the material and field of study, and no other provider could get up to speed on this particular site as quickly.		

Example of a completed TAPP Application



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Key steps in the TAPP application process





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Where can more information on TAPP be found?



TAPP information located on our website at:

<https://www.acq.osd.mil/eie/eer/ecc/pfas/po/cip-rab-tapp.html>

There you can find a link to download the TAPP application, instructions on how to fill out the form in both a step-by-step format or a more visual presentation.

The image is a composite. The top half is a photograph of a public outreach event with many people seated at long tables in a large hall. The bottom half is a screenshot of a website. The website header includes the Department of Defense seal and the text "PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) ENVIRONMENTAL CLEANUP AND COMPLIANCE". Below the header, the text "PUBLIC OUTREACH CIPs - RABs - TAPP" is displayed. Further down, there is a list of three programs: "Community Involvement Plans (CIPs)", "Restoration Advisory Boards (RABs)", and "Technical Assistance for Public Participation (TAPP) Program". The third item, "Technical Assistance for Public Participation (TAPP) Program", is circled in purple.



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Changes are coming to TAPP

- DERP has evolved and so have the technical assistance needs for RABs.
- The FY2024 NDAA includes a provision that modifies the TAPP process.
- Updating takes time and could take several months, and perhaps a year or more, to implement.
 - Regulation must be updated to codify the changes;
 - Revision beginning in Spring 2024;
 - Must go through a public comment period.
- RABs will be notified of the public comment period.
- TAPP will continue as-is until the new regulation is finalized.



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Get started today



<http://www.acq.osd.mil/eie/eer/ecc/pfas/po/cip-rab-tapp.html>