

Welcome to the RAB Meeting

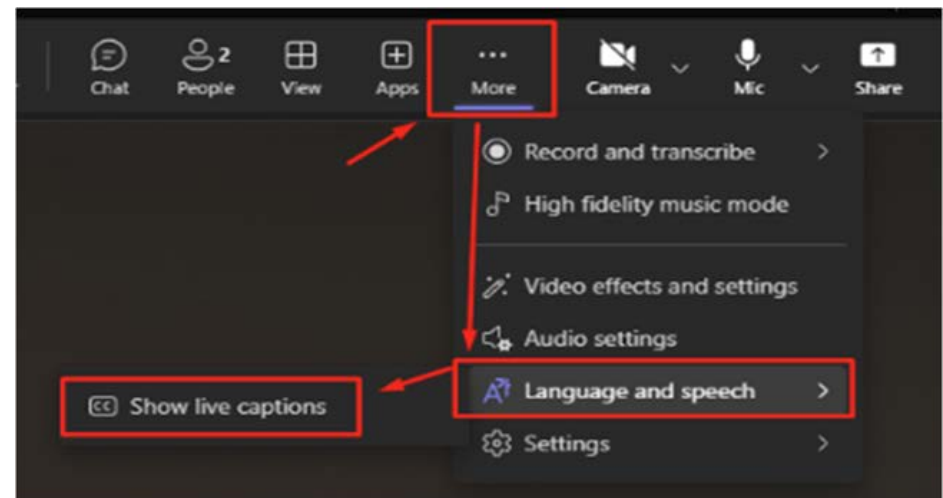


Thank you for joining the
Restoration Advisory Board (RAB) Meeting for
Naval Air Station (NAS) Brunswick
The meeting will begin at 6:00 p.m.

For captions, click More ●●● on the screen

Select 'Language and speech'

Click 'Show live captions'



Restoration Advisory Board Meeting (RAB) Former Naval Air Station Brunswick

May 28, 2025

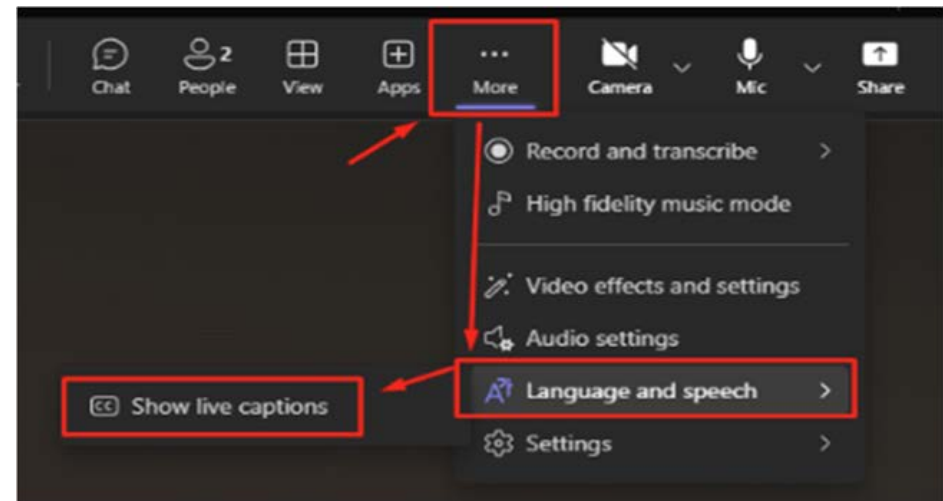


Teams Tools



- **Closed Captioning**

- Select More ●●●
- Select “Language and speech”
- Click “Show live captions”



- **Screen Layout**

- To adjust the layout on your screen, select View
- Choose the preferred view from available choices. Options include Gallery View, Speaker, Focus on Content and under more options, Full Screen

Hybrid Meeting Information



- This is a hybrid meeting with in-person and virtual attendees.
- The virtual meeting will show the presentations.
- Attendee microphones will remain muted except when recognized for questions.
- Questions or comments may be entered in the chat as they arise; they will be addressed during Question & Answer (Q&A) sessions.
- This meeting is being live-streamed by Brunswick TV3. The broadcast is public and will be available online. Additionally, this Microsoft (MS) Teams meeting is being recorded for the purpose of preparing meeting minutes.
- In-person attendees are asked to sign the attendance sheet. Names displayed in MS Teams will be used to record attendance for virtual participants in the meeting minutes.
- For in-person attendees who would like to ask a question, please go to the podium or microphone during the Q&A sessions.

RAB Ground Rules and Information



RAB Meeting Ground Rules

- One speaker at a time
- Question and answer periods will be provided throughout the presentations
- Please turn cell phone off or to silent during the meeting

RAB Information

- Public notice:
 - Published on Town website
 - Published in The Times Record May 16 and 23
 - Published in GoMagazine (*Portland Press Herald*, *Lewiston Sun Journal*, and *Kennebec Journal and Morning Sentinel – Central Maine News*) May 15 and 22
 - Posted on the Navy website April 29
 - Provided to the mailing list April 29
 - Newspaper digital ads appeared daily beginning on May 7
 - Cable ads appeared on Brunswick TV3 May 15 through today (May 28)

Meeting Agenda



Introductions

Major Site Activity Updates

- Community Outreach
- Ongoing Navy PFAS Efforts
 - Remedial Investigation
 - Drinking Water Sampling
 - Stormwater Evaluation
 - Jordan Avenue Wellfield
- PFAS Research at Brunswick
- Land Use Controls

Other Activities

- Picnic Pond Remedial Action
- Five Year Review
- CERCLA Long-Term Monitoring
- Petroleum Cleanup Program Long-Term Monitoring
- Property Transfer

Open Discussion, Questions, and Wrap-Up

Restoration Advisory Board



Restoration Advisory Board (RAB)

- **What is a RAB?** A stakeholder group that meets on a regular basis to discuss environmental restoration but where DoD oversees the restoration process.
- **Who can participate?** Comprised of individuals from the community who are affected by the restoration activities and live/work in close proximity.
- **How often does the Brunswick RAB meet?** Triannual in January, May and September.
- **Technical questions about site specifics?** BRAC Environmental Coordinator or any of the agency representatives found on the last slide
- **Media inquiries?** The Navy Public Affairs Officer Chris Dunne can be reached at christopher.t.dunne3.civ@us.navy.mil.

Members



RAB Co-Chairs:

- Ms. Suzanne L. Johnson, Esq.
- Ms. W. Rachelle Knight, BRAC Environmental Coordinator, Navy

RAB Members:

- Mr. Derek Pinkham, Remedial Project Manager, Navy
- Mr. Michael Daly, Remedial Project Manager, United States Environmental Protection Agency (USEPA)
- Mr. Iver McLeod, Remedial Project Manager, Maine Department of Environmental Protection (MEDEP)
- **Mr. Daniel Stevenson, Midcoast Regional Redevelopment Authority (MRRRA)**
- Mr. Paul Ciesielski, Town of Harpswell, Maine
- Ms. Susan Schow, Town of Topsham, Maine
- Ms. Carol A. White, C.A. White & Associates, Brunswick Area Citizens for a Safe Environment (BACSE)
- Mr. David Page, PhD, Town of Brunswick, Maine

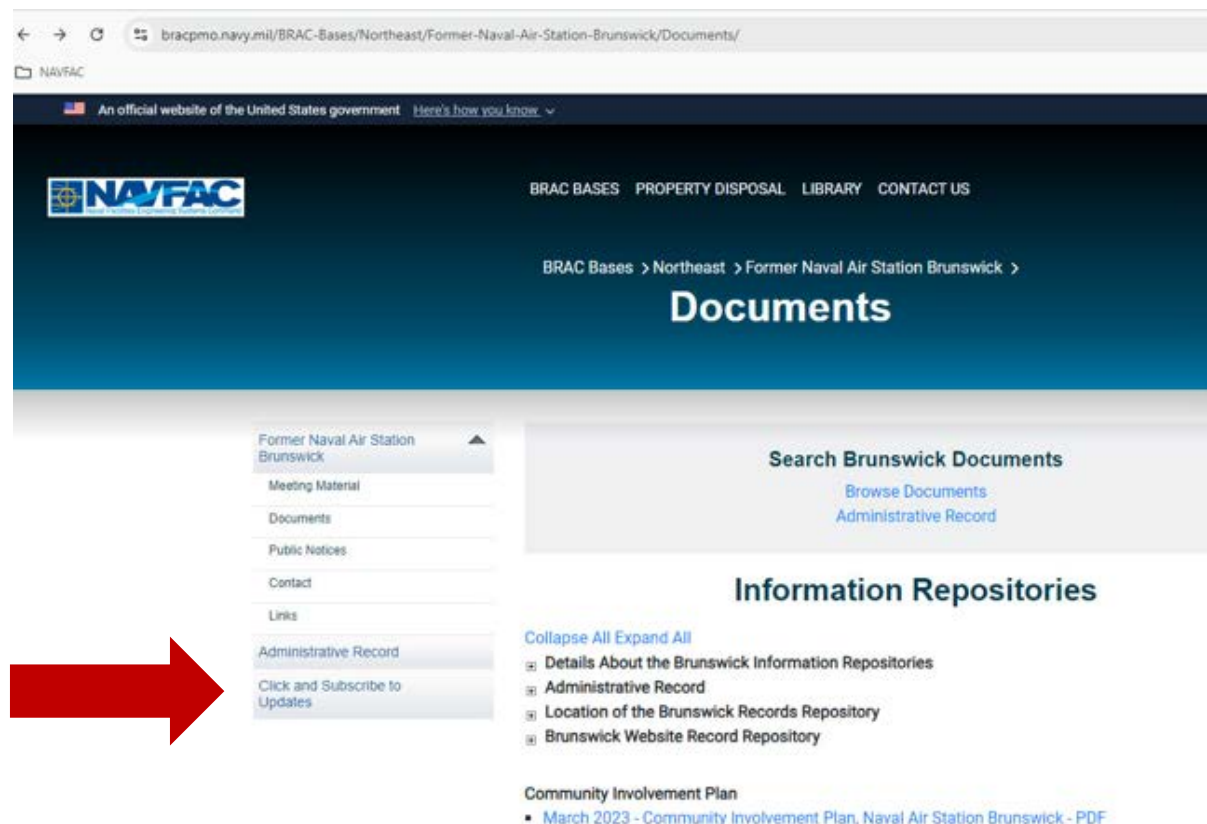
Major Site Activity Updates

Community Outreach



Stay Connected

- Register for updates via GovDelivery
- Meetings held in the evening to promote increased participation
- Public notices
- Emailed to subscribers
- Posted on Navy's website
- Published in The Times Record and GoMagazine (*Portland Press Herald*, *Lewiston Sun Journal*, and *Kennebec Journal and Morning Sentinel – Central Maine News*)
- *Upcoming Semi-Annual Newsletter*

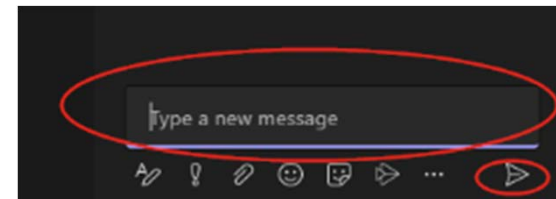
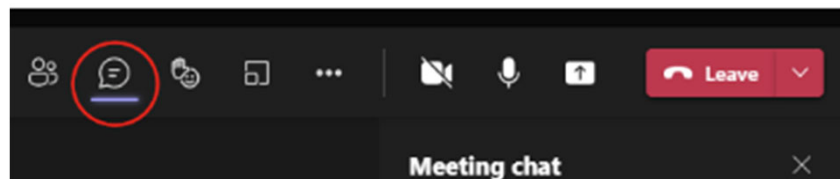


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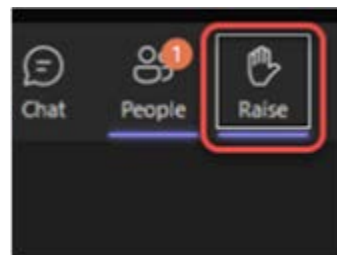
How to Ask Questions



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Major Site Activity Updates

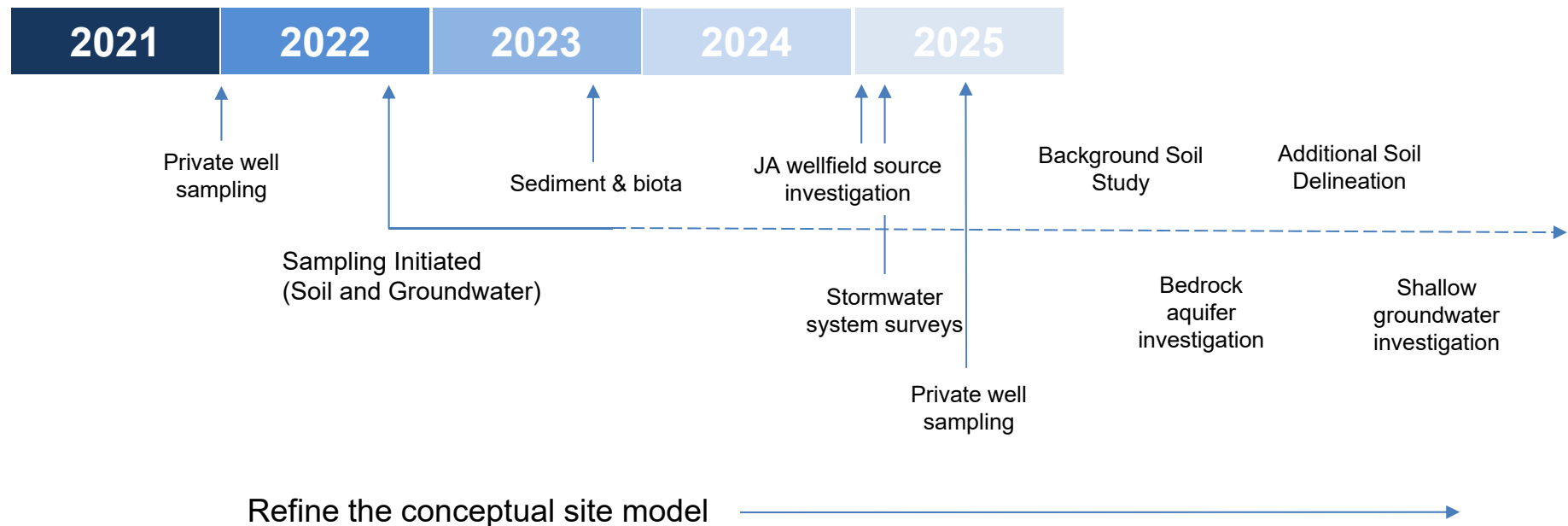
Ongoing Navy PFAS Efforts



Remedial Investigation Primary Objective: Determine nature and extent and assess risk to human health and the environment.

REMEDIAL INVESTIGATION (RI)/
FEASIBILITY STUDY (FS)

Interim actions can occur at any time.



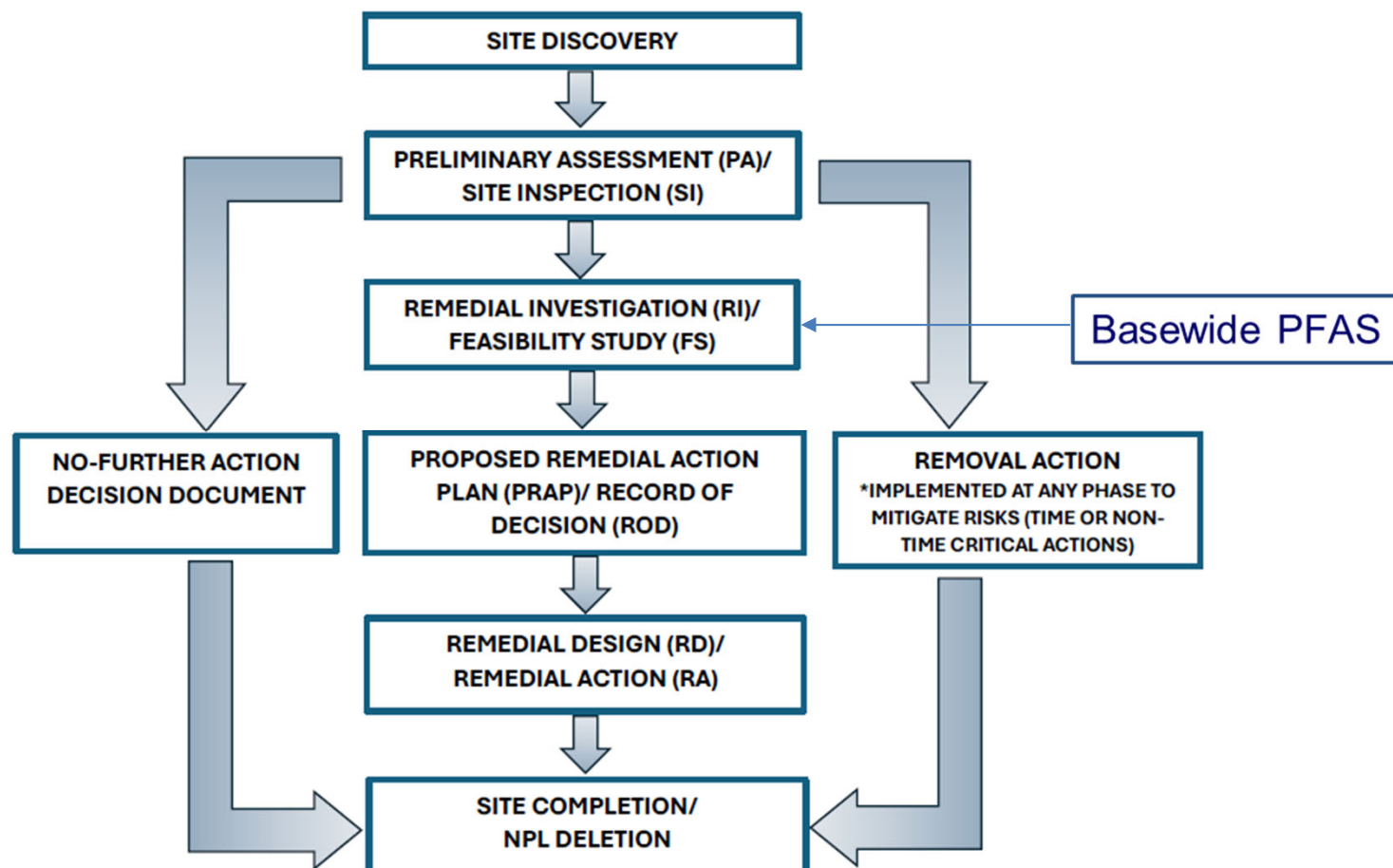
Groundwater flow, infiltration rates, stormwater runoff, groundwater discharge, pollutant migration gleaned through data collection efforts.

Major Site Activity Updates

Ongoing Navy PFAS Efforts (Continued)



Environmental Cleanup Process

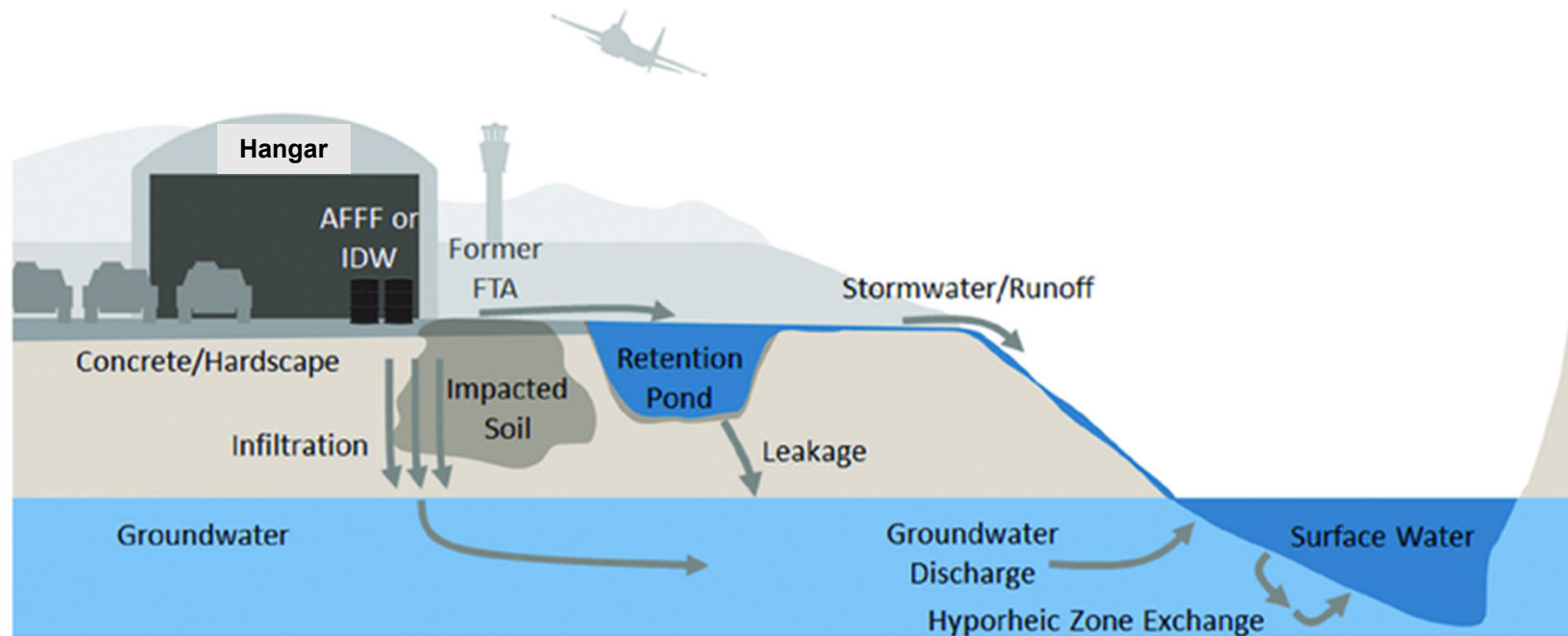


Major Site Activity Updates

Ongoing Navy PFAS Efforts (Continued)



Example Conceptual Site Model



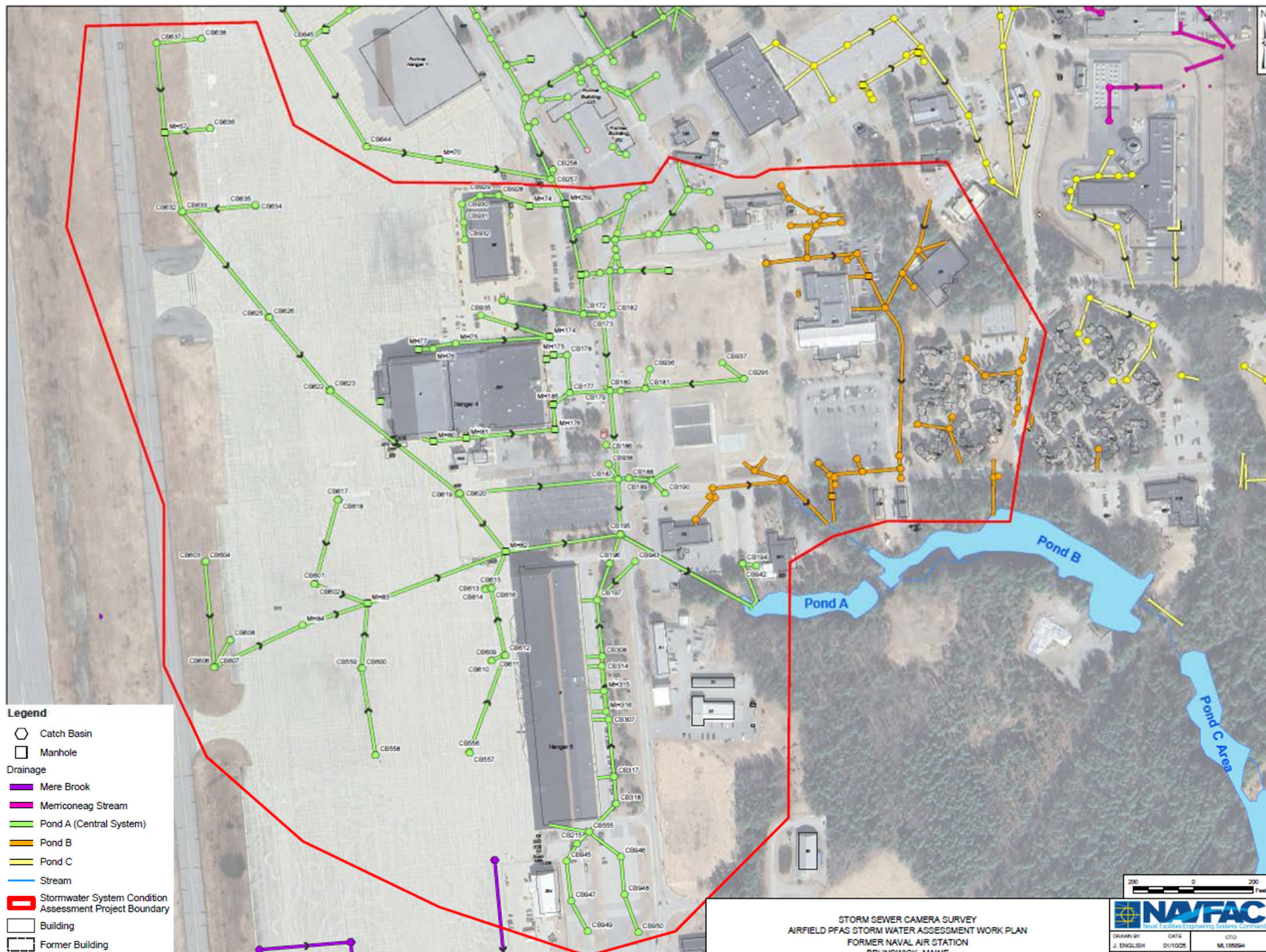
Major Site Activity Updates

Ongoing Navy PFAS Efforts (Continued)



Stormwater at former NAS Brunswick

- Stormwater CSM
- Components of Stormwater Evaluation:
 - Study design, fieldwork, data processing, data modeling
- Stormwater Evaluation Update
 - Fieldwork completed March 2025, 20,285 linear feet surveyed



Major Site Activity Updates

Ongoing Navy PFAS Efforts, continued



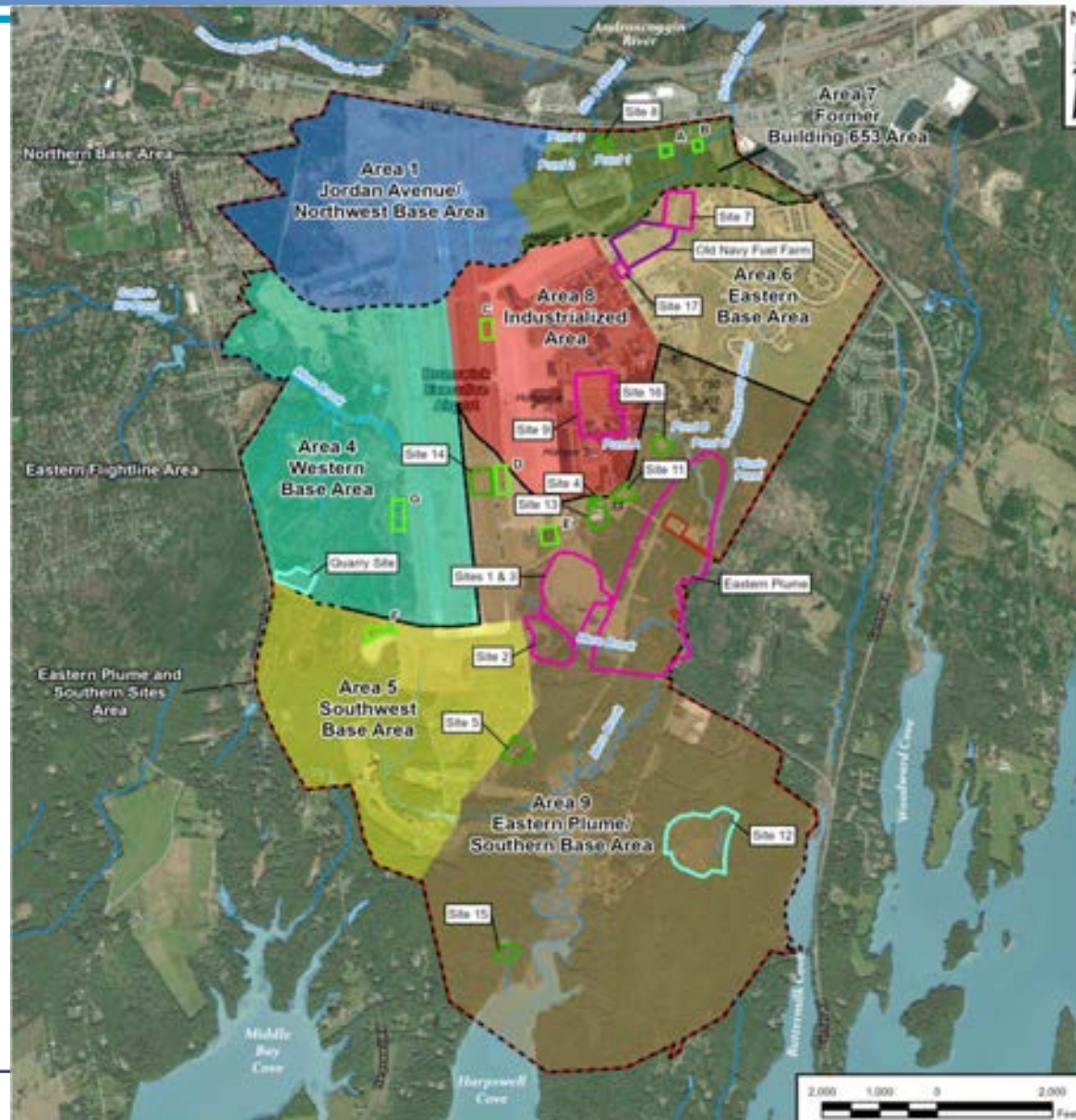
PFAS RI Study Areas

Legend

- PFAS Reporting Areas
- Approximate AFFF Discharge Area
- IR Program Site
- IR Program Site - No Further Action
- Land Use Control Boundary
- Petroleum Oil Lubricant Site
- Former Installation Boundary
- Building
- Former Building
- Water
- Stream

PFAS Reporting Area

- Area 1 Jordan Avenue/Northwest Base Area
- Area 4 Western Base Area
- Area 5 Southwest Base Area
- Area 6 Eastern Base Area
- Area 7 Former Building 653 Area
- Area 8 Industrialized Area
- Area 9 Eastern Plume/Southern Base Area

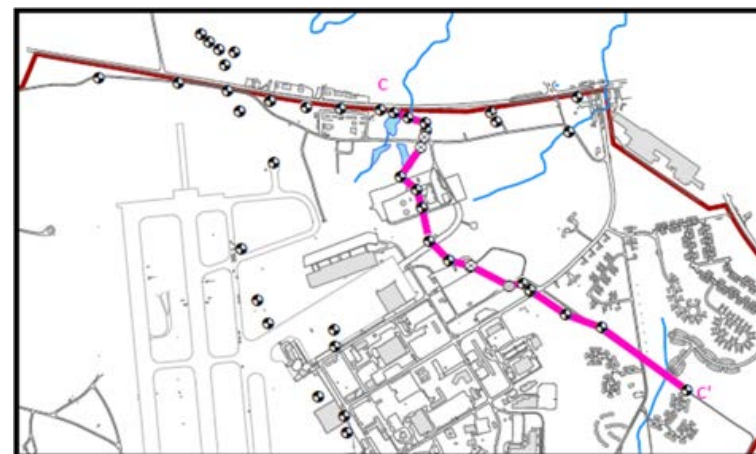
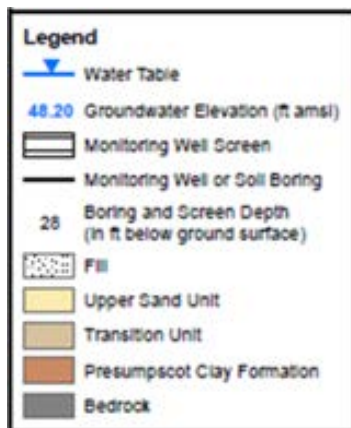
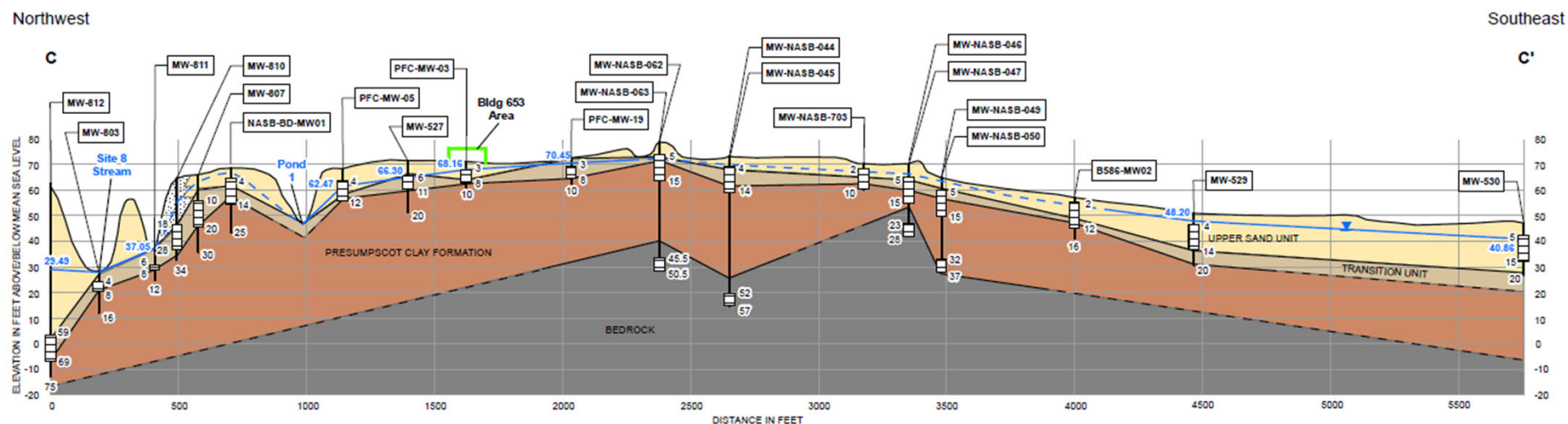


Major Site Activity Updates

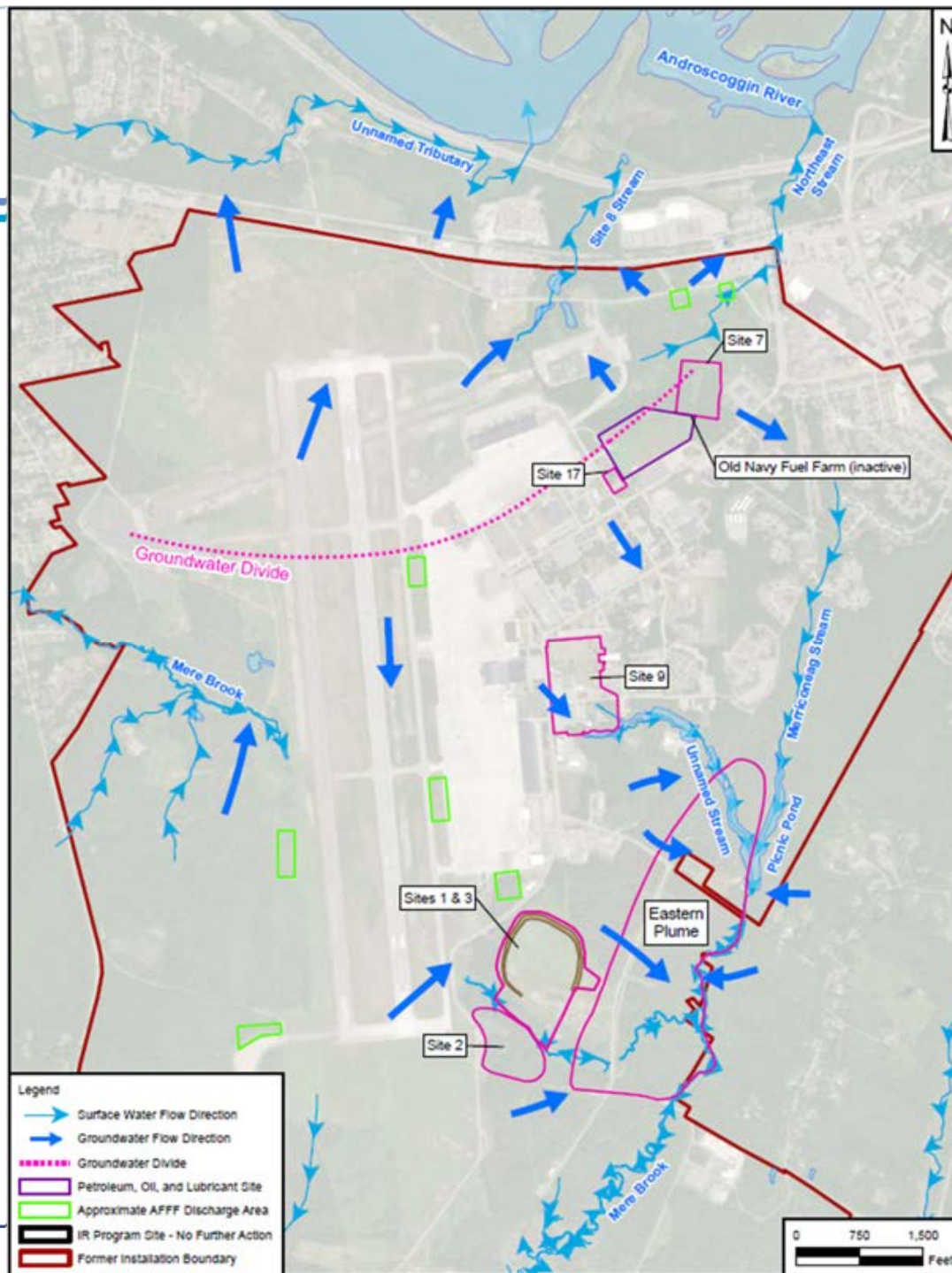
Ongoing Navy PFAS Efforts, continued



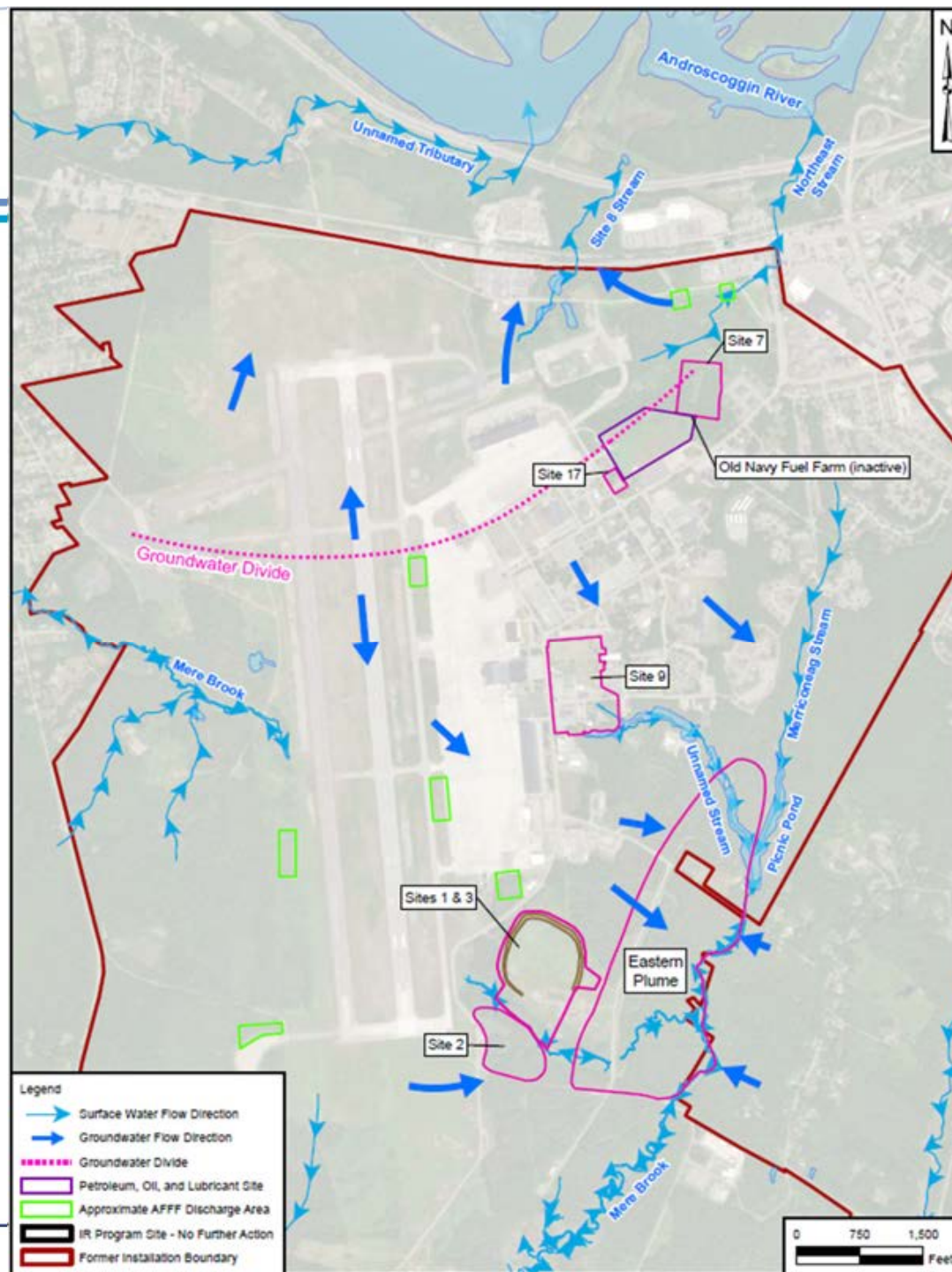
Basic Overview of Geology



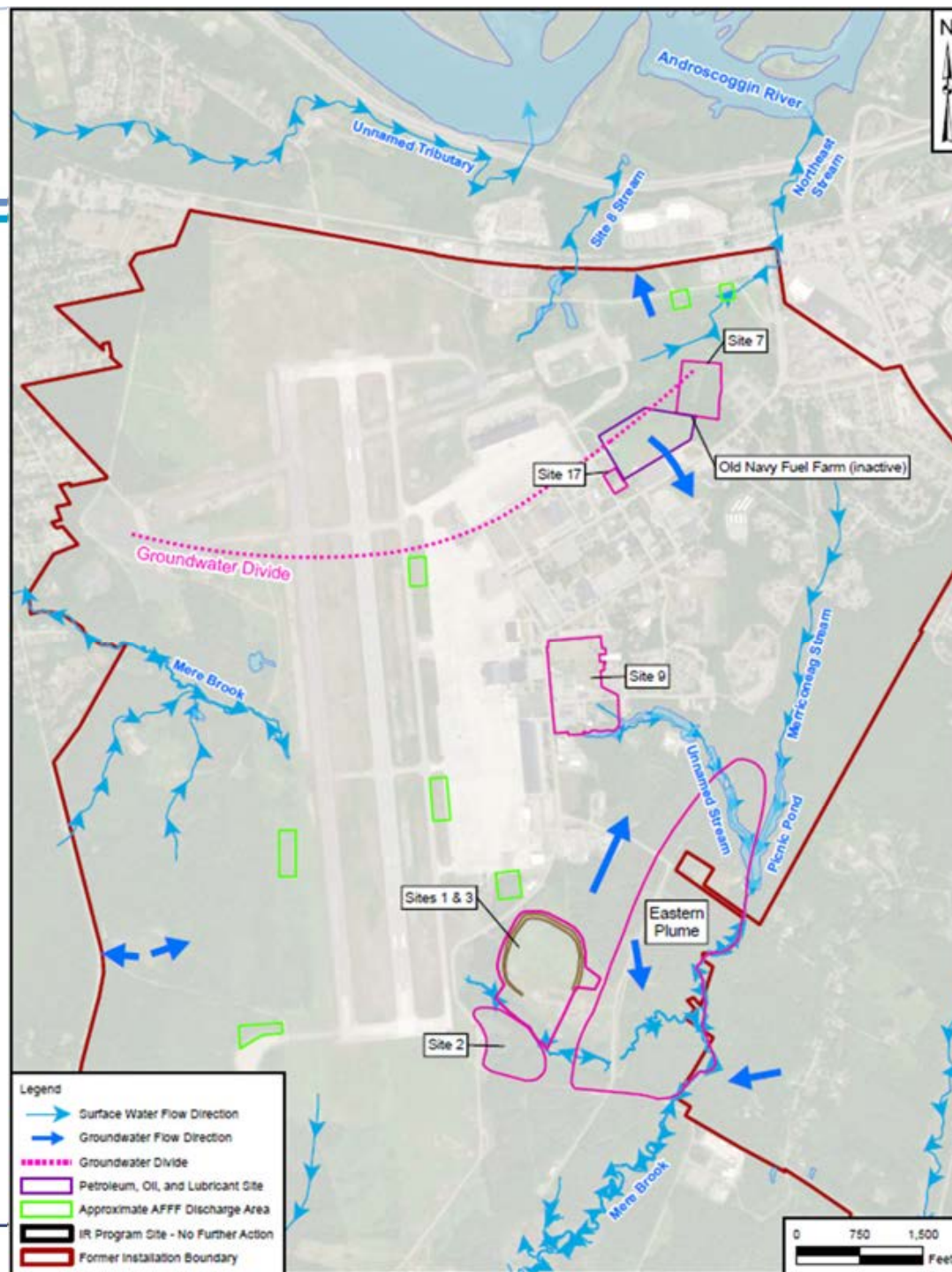
Basewide Shallow Groundwater Flow Map



Basewide Deep Groundwater Flow Map



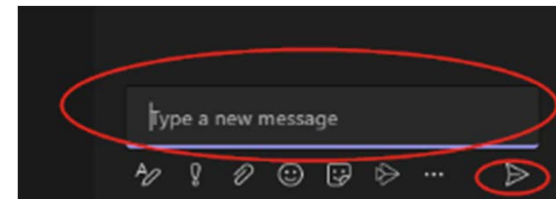
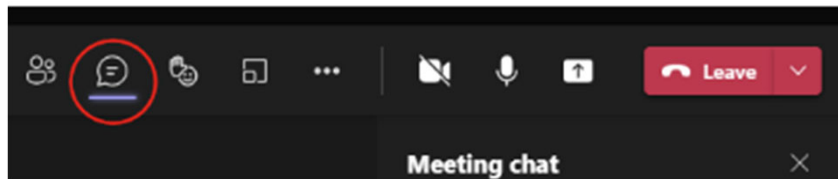
Basewide Bedrock Groundwater Flow Map



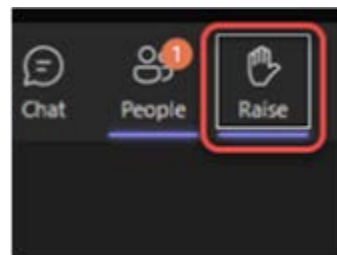
Q&A



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Major Site Activity Updates

Ongoing Navy PFAS Efforts, continued



PFAS Drinking Water Sampling Program

- Sampling will require permission from the property owner. Access agreements will be sent to property owners prior to conducting the sampling.
- A fact sheet will be included with the access agreement form to provide property owners with information about the sampling program.
- A questionnaire will also be included with the access agreement for the property owner to provide information about their private well and any filtration or treatment system(s) being used.
- Once a property owner has granted permission, the Navy's contractor, Resolution Consultants, will contact the property owner to schedule a date and time to conduct the sampling.
- Sampling should take one hour or less to complete.
- The Navy is planning to begin private well sampling in June 2025.
- Individual results will be provided to the property owner.

Major Site Activity Updates

Ongoing Navy PFAS Efforts, continued



Jordan Avenue Wellfield

- Results of sampling by the Brunswick Topsham Water District (BTWD) in early 2022 indicated that PFAS was present at select wells in the Jordan Avenue Well Field.
- Based on these results, the Navy expedited a Work Plan to investigate and field work was performed in Spring 2022.
- A decision to perform a Removal Action was made and an Engineering Evaluation / Cost Analysis (EE/CA) was prepared to document the selected action.



Major Site Activity Updates

Ongoing Navy PFAS Efforts, continued



Jordan Avenue Wellfield, continued

- Remedy documented in an Action Memo, finalized in early 2025.
- The Navy and BTWD entered into an Environmental Services Cooperative Agreement (ESCA) valued at over \$21M in 2023 to design & construct a PFAS treatment system.

Construction started in Fall 2024 and is scheduled to last until Spring 2026.



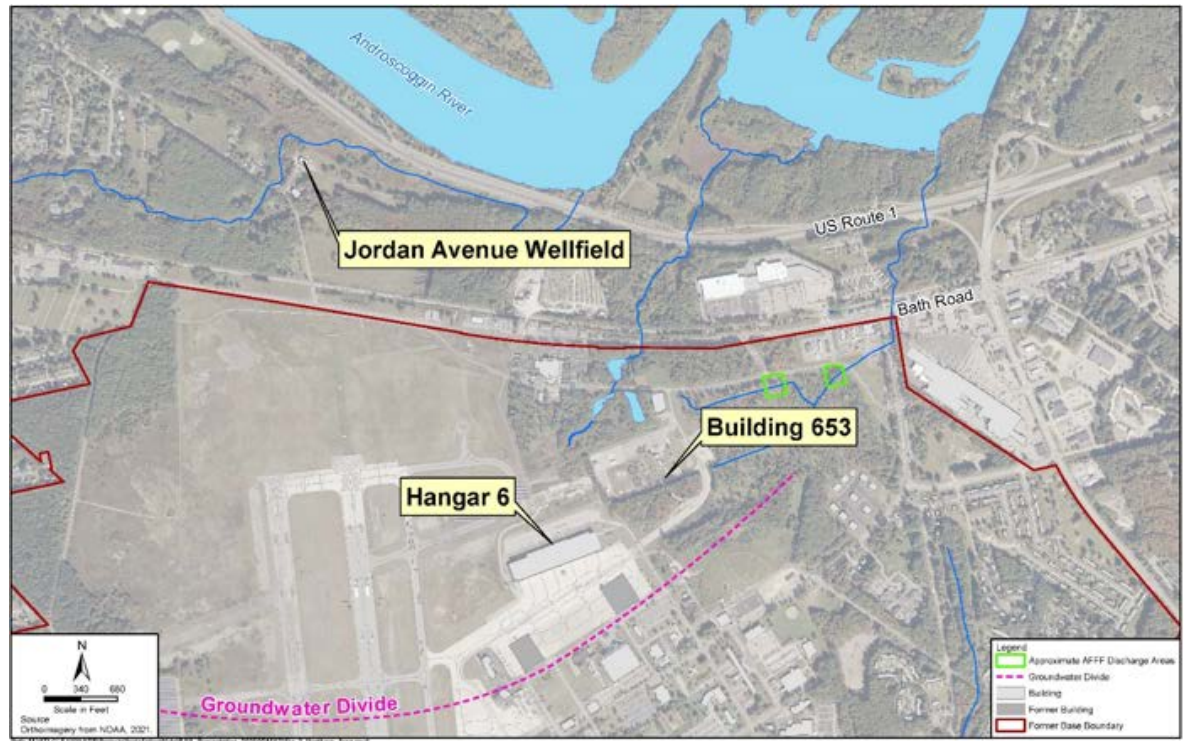
Major Site Activity Updates

Ongoing Navy PFAS Efforts, continued



Jordan Avenue Wellfield PFAS Source Identification

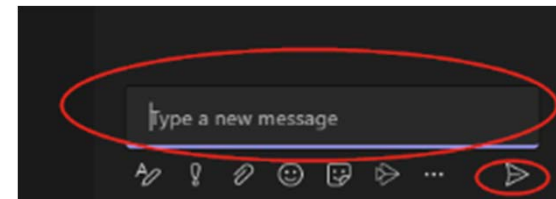
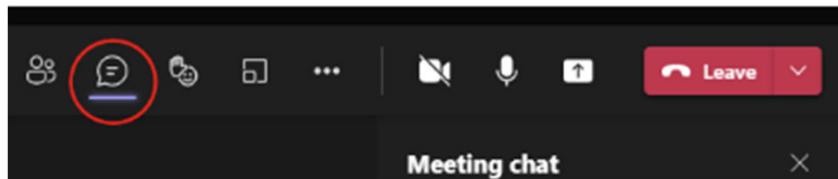
- Conduct evaluation to identify potential source(s) of PFAS to the Jordan Avenue Wellfield
- Evaluating area upgradient on former base property
- Developing Work Plan to document potential sources
- Conduct investigations, as necessary



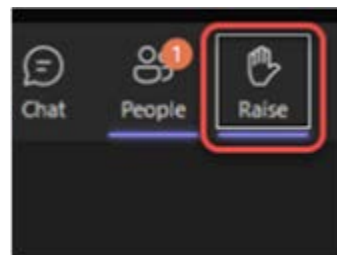
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Major Site Activity Updates

DoD's SERDP/ESTCP - Brunswick Selected as a Research Site



Established by Congress in 1990 and designed to address issues common across the Armed Services.

Strategic Environmental Research & Development Program

- Issues solicitations for proposals from the Federal government, academia and industry for the development of innovative technologies.

Environmental Security Technology Certification Program

- Issues solicitations for proposals from the Federal government, academia and industry for the demonstrate and validate novel technologies.

www.serdp-estcp.mil

Major Site Activity Updates

DoD's SERDP/ESTCP - Brunswick Selected as a Research Site



Attenuation Mechanisms for Low Concentrations of 1,4-Dioxane & Related Contaminants (ER23-C4-3904)

Examines the degradation of relatively low concentrations of 1,4-dioxane and select halogenated solvents under different oxidation-reduction conditions.

PFAS Transport and Interaction with Portland Cement & Asphalt Concrete (ER23-3683)

Objective is to understand PFAS transport and transformation in these materials and develop models for estimation of PFAS leaching.

Understanding the Spatial/Temporal Nature of AFFF PFAS Loadings in Stormwater to Develop Targeted Stormwater Treatment Technologies (ER23-3741)

Seeks understanding of the nature of PFAS loadings both temporally and spatially and explore opportunities to significantly reduce the magnitude of PFAS in stormwater by focusing on the most critical PFAS stormwater transport compartments.

www.serdp-estcp.mil

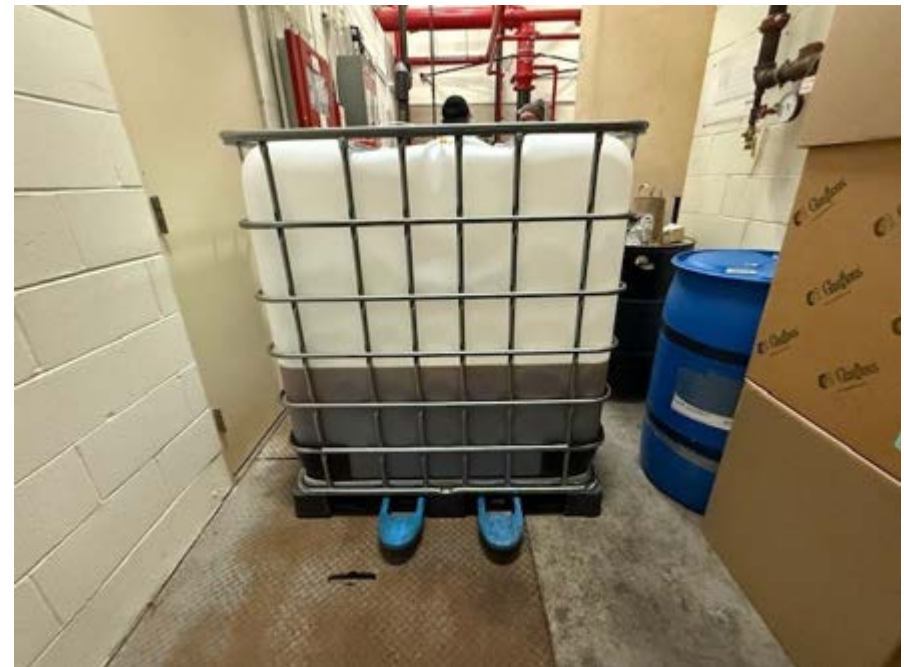
Major Site Activity Updates

DoD's SERDP/ESTCP - Brunswick Selected as a Research Site



Destruction of AFFF Containing PFAS (ER24-ES-8929)

Collects AFFF formulations from active and former DoD facilities to create a well-characterized AFFF blend that will be used to validate destruction technologies.



www.serdp-estcp.mil

Major Site Activity Updates

Navy Funded - Brunswick Selected as a Research Site



Characterizing PFAS Discharges Into Surface Water: A Multi-Media Approach

Evaluation of occurrences of PFAS in media downgradient of historical PFAS release area, occurrences of PFAS in background soils and potential for PFAS to migrate through soil, groundwater, surface runoff, stormwater, precipitation and ambient air.

Major Site Activity Updates

Land Use Controls (LUCs) – A Layering Strategy



FOST states the Land Use Controls required for inclusion in the property deed, exist in perpetuity unless released by the Navy.

All property owners are required to certify compliance with LUCs annually, fact sheet now included to explain the LUCs.

Cleanup sites are required to be inspected annually by the Navy when LUCs are part of the remedy.

All construction activity at Brunswick Landing requires a Construction Permission Form in addition to the construction permit.

Major Site Activity Updates

LUCs by the Numbers



Property Owner Certifications Year to Year

2022	2023	2024
66%	58%	64%

Most Common Issue with Forms

All controls noted “N/A”

Response	Deed Restriction or Land Use Control
Y / N / NA	Did you use or or have contact with groundwater on the subject property for any purpose? If yes, please explain on the back of this form.
Y / N / NA	Did you provide protection of groundwater monitoring wells and treatment systems located on the subject property? If not, please explain on the back of this form.
Y / N / NA	Did you contact proper oversight authority for any reason related to asbestos, lead-based paint, and/or polychlorinated biphenyls (PCBs) on the subject property? If yes, please explain on the back of this form.
Y / N / NA	Did you comply with existing LUCs on your property? If not, please explain on the back of this form. Please contact the Navy if you do not have a copy of the LUCs associated with your property.

Major Site Activity Updates

LUC Corrective Actions



Quarry Area Site Repairs – April 2025



- Five out of six faded signs were replaced
- Faded fact sheet in kiosk was replaced
- Damaged fact sheet box was replaced
- Fact sheets were replenished
- Well repairs

Major Site Activity Updates

LUCs by the Numbers



18 Construction Permission Requests approved in 2024



Katahdin Utility Project

BRUNSWICK LANDING CONSTRUCTION PERMISSION REQUEST

1. Requester		2. Date of request:	
Phone Number:	Email:	Organization/Relation to Property Owner:	Contractor:
		Subcontractor:	
3. Location of work area (Address):			
Intersecting streets or building number:		MRRA Lot Number	Navy (FOST) Parcel Number
4. Describe Proposed Work (Attach sketch or marked up map and any project plans. Include soil disturbance (area, depth) and potential contact with groundwater):			
5. Construction Schedule (Planned start date and completion date):			
6. Current Land Use Controls (LUCs) in construction area (identified in FOST/Deed or LUCIP):			
7. Identify proposed activities that may be inconsistent with LUCs (i.e., placing a utility trench in an area with a no soil disturbance restriction):			
8. Identify planned mitigation actions (i.e., soil management plan, dewatering plan):			
9. Identify planned exposure controls (i.e., PPE, exclusions zones, monitoring):			
10. Certifications: As the authorized representative of the property owner of the subject property, I hereby certify that: (Check all that apply)			
☐ a. I possess a copy of the applicable FOST or LUCRD that identifies the LUCs and a map showing the LUC area.			
☐ b. I acknowledge that residual contamination exists on the subject property and that further information on the site contaminants can be found in the administrative record located at the Navy CSO in Hangar 6.			
☐ c. Information regarding site contamination will be provided to all contractors and subcontractors. Contractors and subcontractors to sign below upon receipt of information.			
Contractor:		Printed Name/Signature:	Date:
Subcontractor:		Printed Name/Signature:	Date:
☐ d. The proposed construction will not change the land use (i.e., from industrial/commercial to residential).			
☐ e. Potential exposures to contaminants by workers will be controlled through protective measures such as Personal Protective Equipment (PPE) or engineering controls such as dust suppression.			
☐ f. Impacts to existing remedies will be avoided or mitigated at the expense of the owner (i.e., damage to a fence, soil cover, or monitoring well).			
☐ g. Construction activities that could affect existing remedies by impacting groundwater infiltration or flow direction, vertical migration of residual contamination (i.e., soil vapor intrusion or mobilization of soil contaminants to groundwater or air in dust) will be anticipated, planned for, monitored, and mitigated.			
☐ h. Any dewatering required will be conducted in accordance with the Former Naval Air Station Brunswick dewatering plan.			
☐ i. Excess soil in an area with soil disturbance restriction will be properly managed, tested, and disposed based on the results.			
☐ j. Previously unknown contamination encountered during construction will be immediately reported to the Navy (within 48 hours of discovery).			
Printed Name of Authorized Owner Representative		Signature Authorized Owner Representative	Date
11. Navy Review			
Requestor authorized to proceed*		Signatures/Date:	Serial No:
Further information is requested			Date:
Permit denied			
Comments attached			

*Authorization to Proceed does not constitute approval of methods by which environmental, safety, and other regulations are met.

Construction Permission Request Form is available on the Town of Brunswick website:
<https://www.brunswickme.org/235/Permits-Applications>

Major Site Activity Updates

LUCs by the Numbers



18 Construction Permission Requests approved in 2024



Anchor Drive Apartments



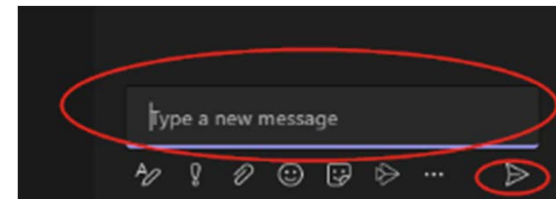
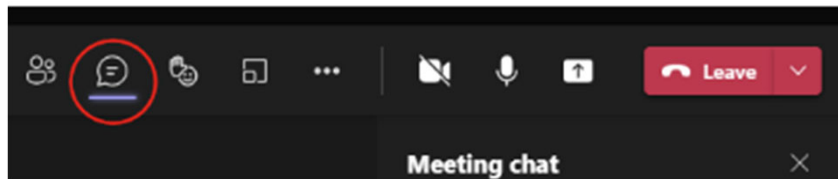
Emergency Water Main Break

Construction Permission Request Form is available on the Town of Brunswick website:
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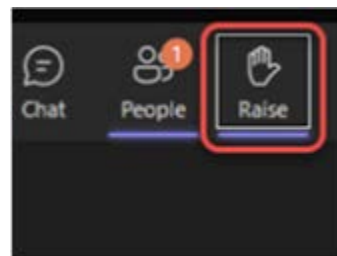
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Other Activities



Former Picnic Pond Stormwater Retention System Sediment Remediation

- Remediation being performed following the 2020 Record of Decision.
- Post dredging sediment sampling indicated that no excessive risk was present and that no additional dredging would be necessary.
- Disposal of remaining sediment and restoration of disturbed areas expected by the end of Summer 2025.
- Preparation of the Remedial Action Completion Report has begun.

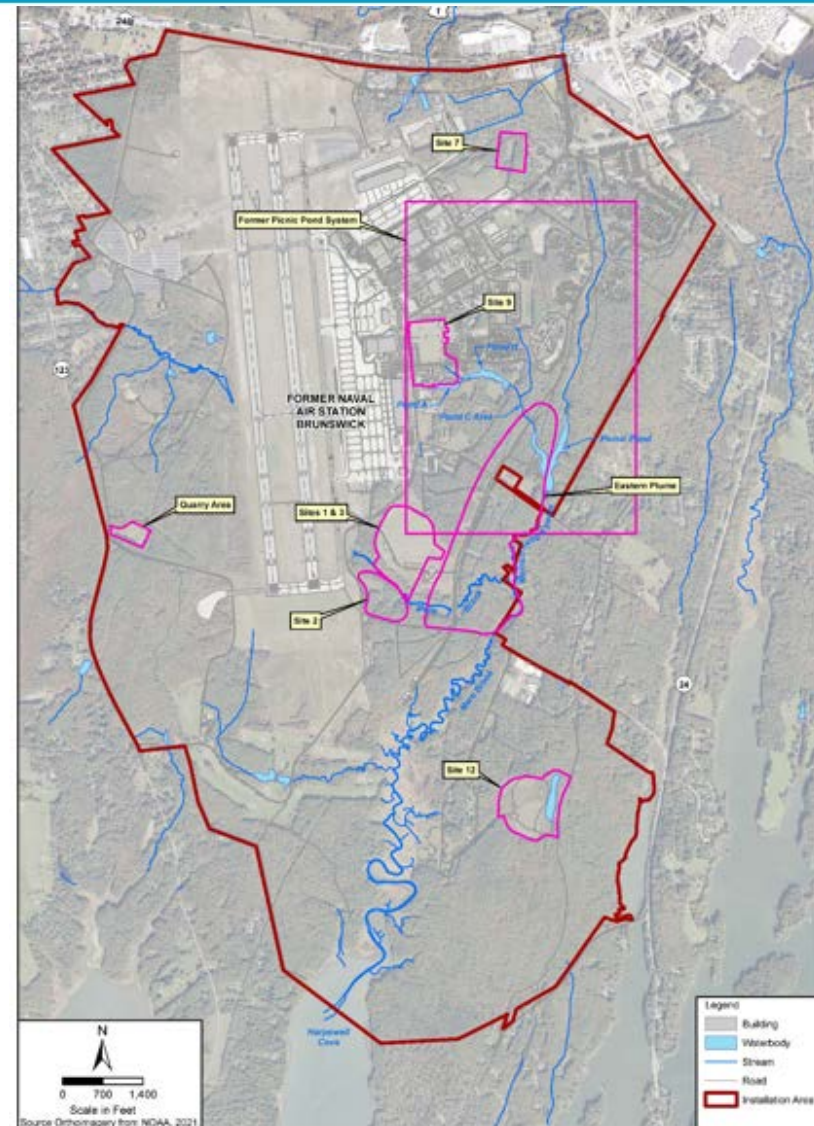


Other Activities, continued

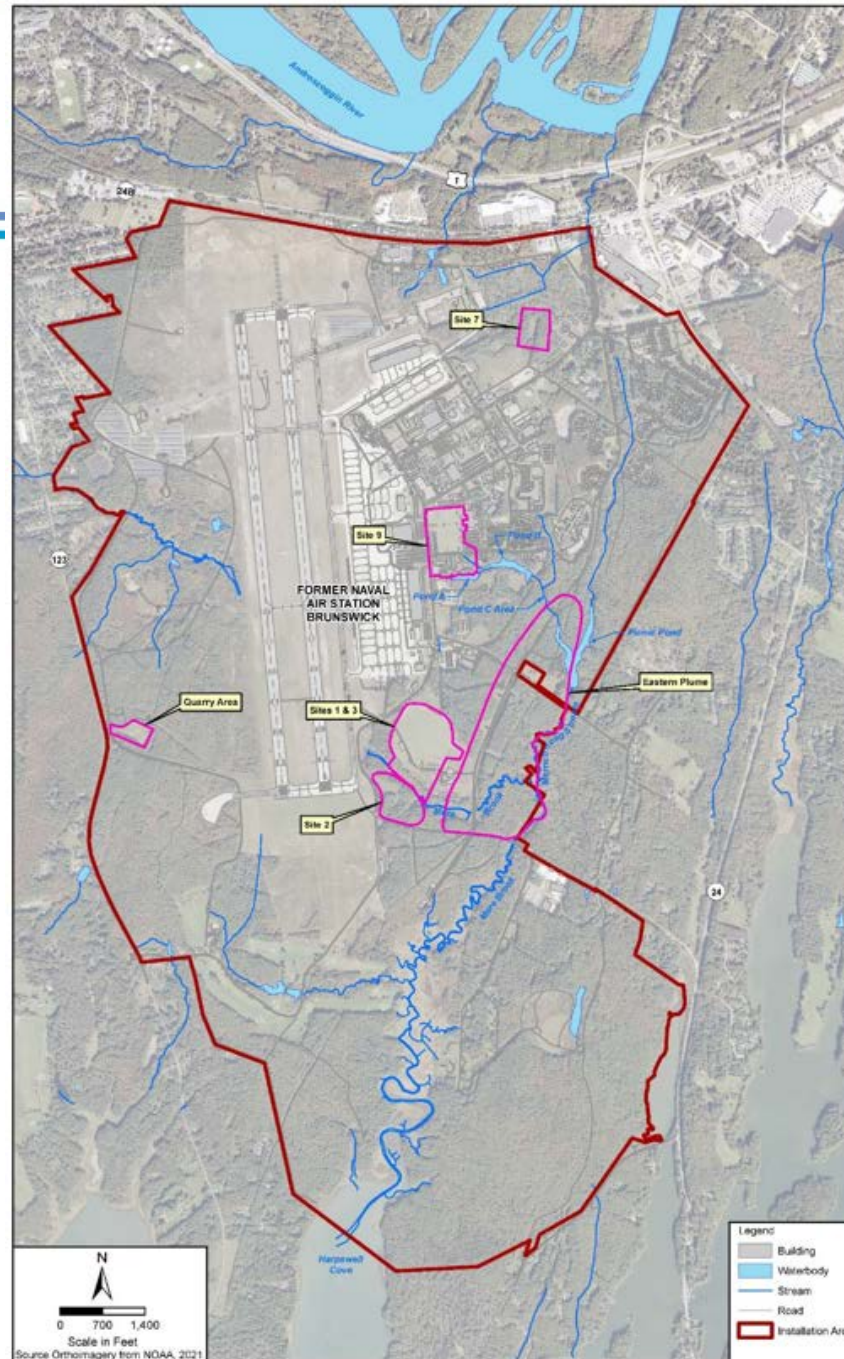


Five Year Review

- Purpose of Five-Year Reviews
- Sixth Five-Year Review at Brunswick
- Eight CERCLA sites included in the current Five-Year Review
- PFAS is not included since it is in the Remedial Investigation phase
- Draft Sixth Five-Year Review Report issued in April 2025
- Final report to be signed by late September 2025



Long-Term Monitoring (LTM) CERCLA Sites



Other Activities, continued



CERCLA LTM Sampling

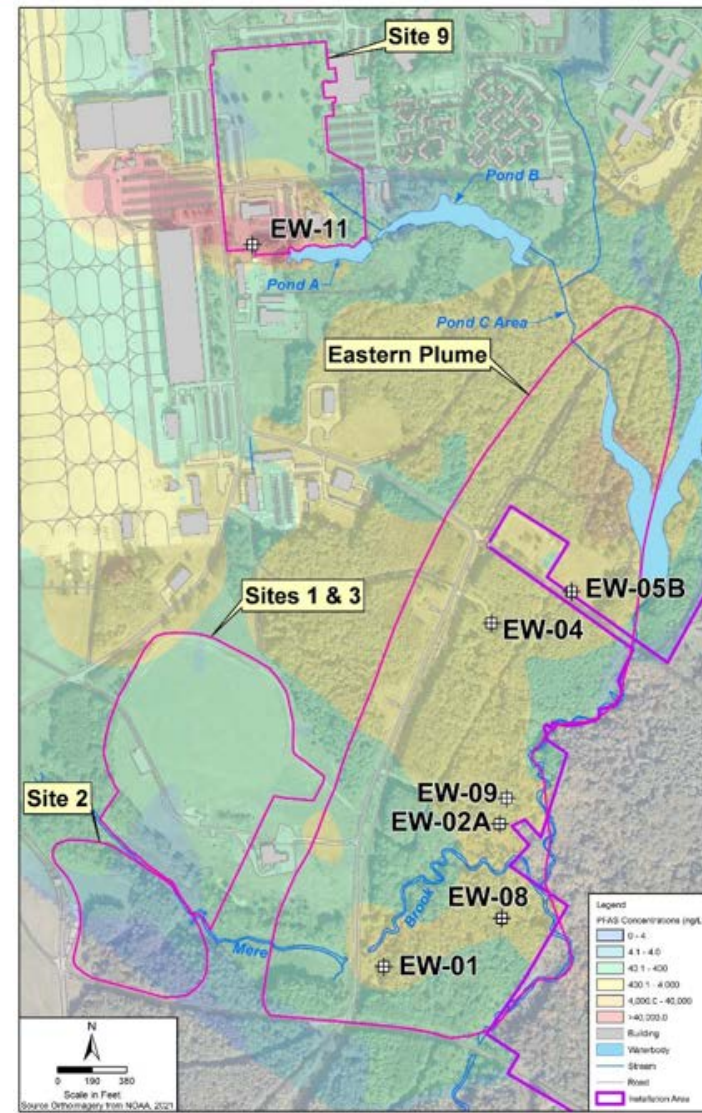
- 2024 Spring and Fall LTM events completed, and a detailed evaluation will be included in the Draft 2024 Annual LTM Report.
- Results of 2024 LTM sampling events confirm that the selected remedies for each site are functioning as intended.
- Sites 1 & 3 radiological survey completed in April 2025.
- Spring 2025 LTM event completed in May 2025.

Other Activities, continued



Eastern Plume GWETS

- The selected remedy for the Eastern Plume included installing a treatment plant to prevent groundwater flow offbase and to reduce concentrations of contaminants.
- GWETS was modified in 2015 to treat both CVOCs and PFAS.
- EW-11 near Hangar 4 has been connected to the GWETS for future use.

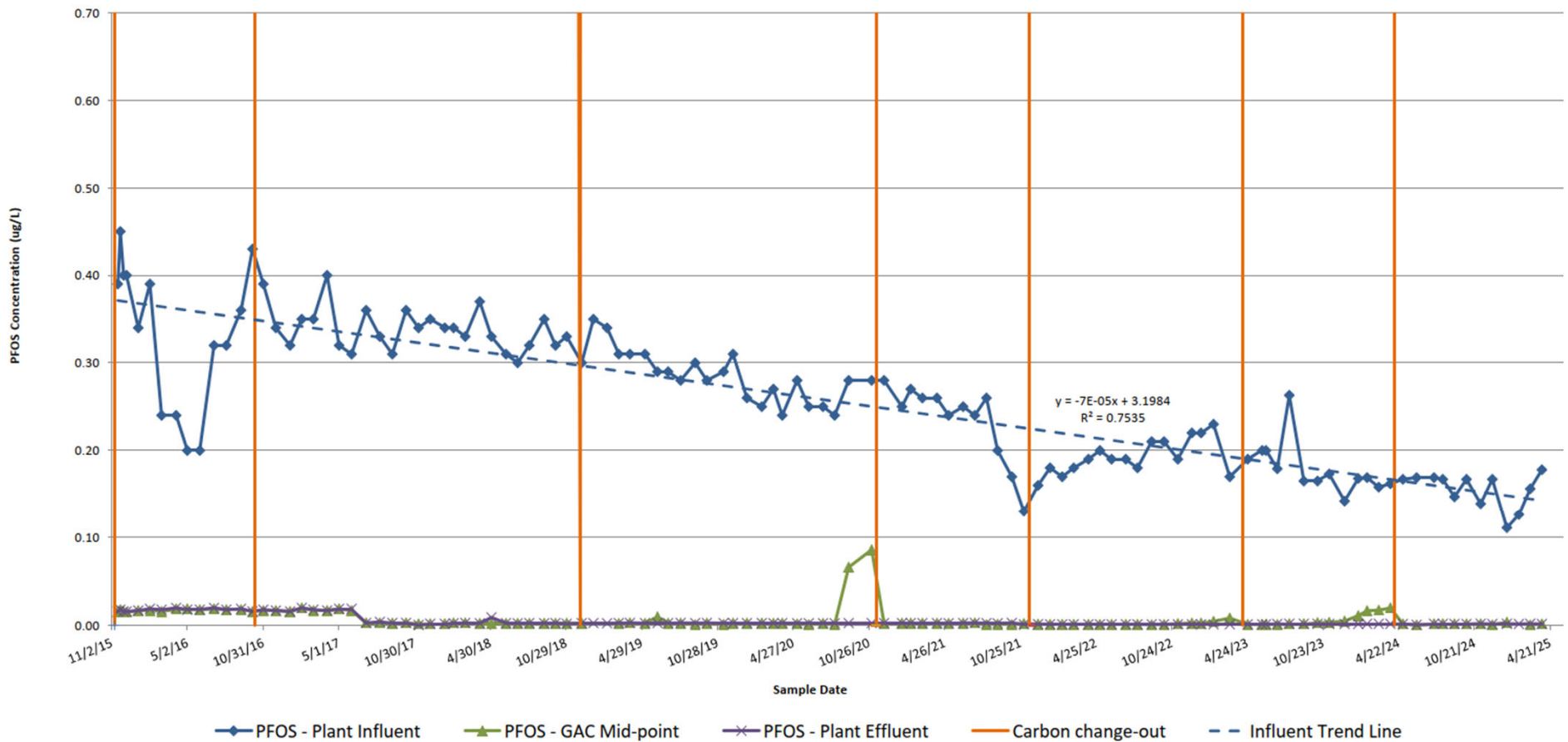




Other Activities, continued



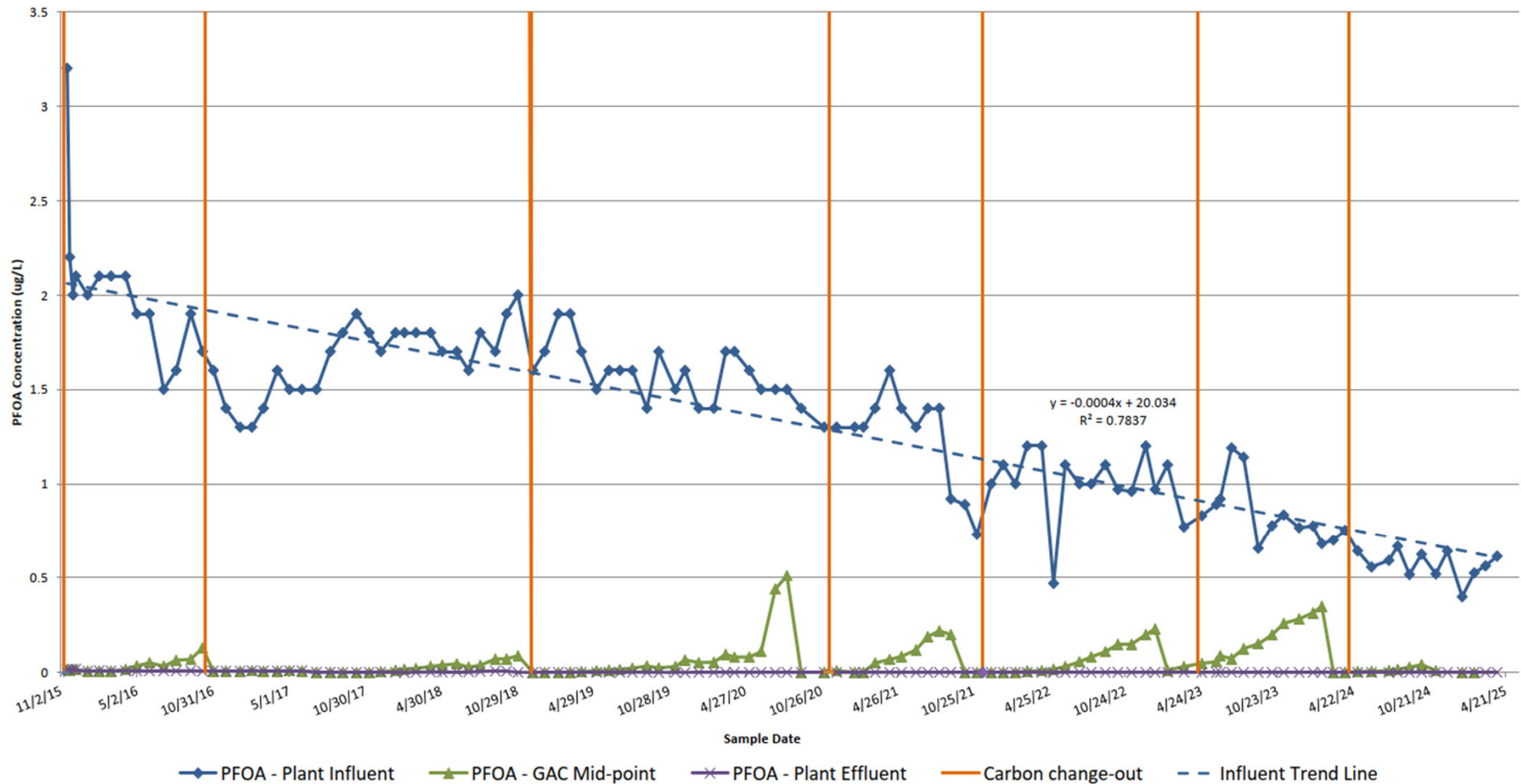
GWETS PFOS Concentrations



Other Activities, continued



GWETS PFOA Concentrations



Other Activities, continued



Petroleum Cleanup Program LTM Sampling

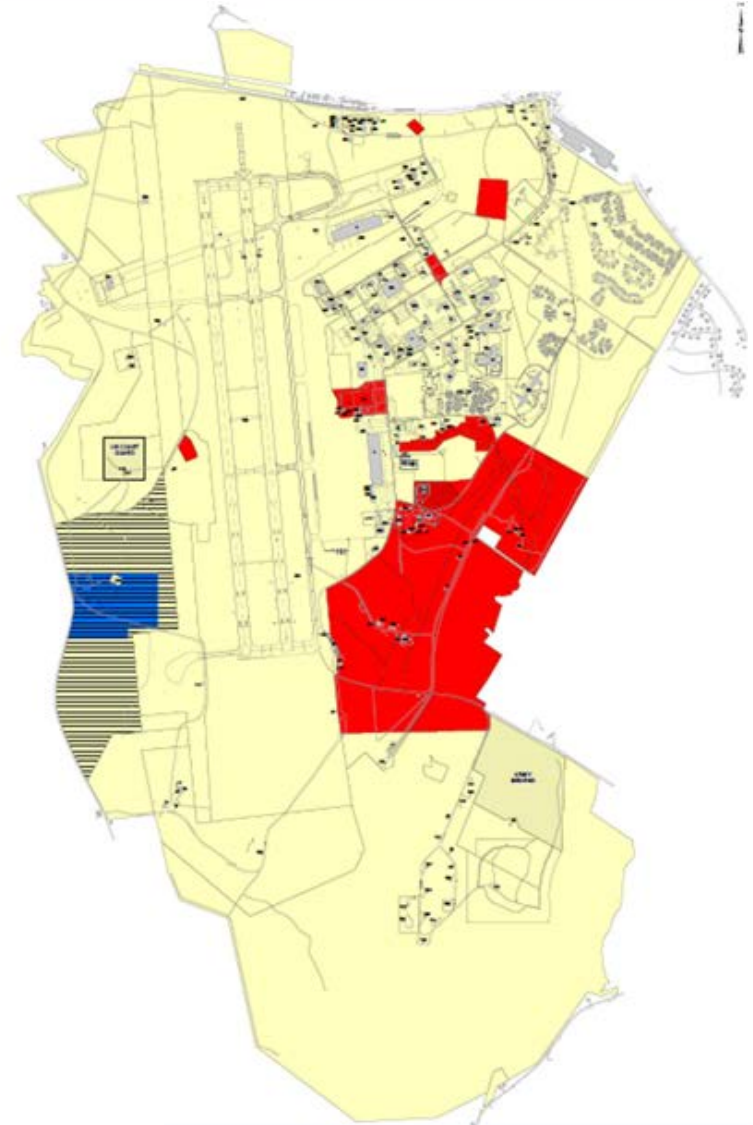
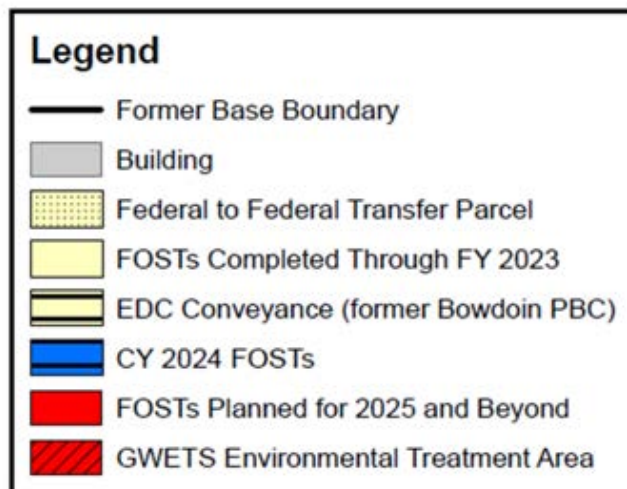
- Old Navy Fuel Farm (ONFF) and Naval Exchange (NEX) Service Station undergo biennial LTM.
- Biennial LTM was completed in June 2024.
- 2024 Draft ONFF and NEX LTM Reports anticipated in June 2025.

Other Activities, continued



Findings of Suitability to Transfer (FOSTs)

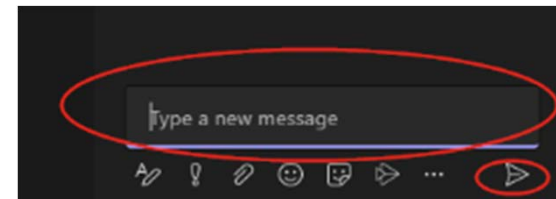
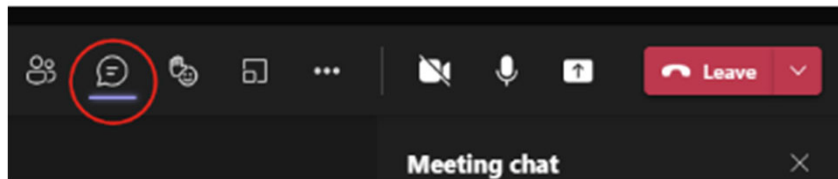
- Quarry, FOST finalized January 15, 2025
 - Deed executed by Navy in March 2025
 - UECA lead by MEDEP
- AIR-16 – Currently evaluating path to transfer



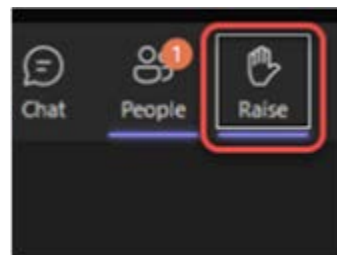
Q&A



- 1) To ask a question, select the 'Chat' icon in the meeting controls. Then type your question in the text box and select 'Send'.



- 2) Select 'Raise your hand' icon in the meeting controls. Once recognized, your microphone will be enabled. You will then need to unmute yourself.



- 3) Phone-only attendees can dial *5 to raise their hand and have the opportunity to ask a question. Once recognized, dial *6 to unmute.

Thank You!



Thank you for attending today's meeting!

**Next RAB Meeting: September 2025 at 6:00 pm
Hybrid Meeting**

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Acronyms



AFFF	Aqueous Film-Forming Foam
BACSE	Brunswick Area Citizens for a Safe Environment
BRAC	Base Realignment and Closure
BTWD	Brunswick/Topsham Water District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CVOC	Chlorinated Volatile Organic Compounds
CSM	Conceptual Site Model
CY	Calendar Year
DoD	Department of Defense
EDC	Economic Development Conveyance
EE/CA	Engineering Evaluation/Cost Analysis
ESCA	Environmental Services Cooperative Agreement
ESTCP	Environmental Security Technology Certification Program
FOST	Finding of Suitability to Transfer
FS	Feasibility Study
FTA	Fire Training Area
GWETS	Groundwater Extraction Treatment System

Acronyms, continued



IDW	Investigation Derived Waste
IR	Installation Restoration
JA	Jordan Avenue
LTM	Long-Term Monitoring
LUC	Land Use Control
MEDEP	Maine Department of Environmental Protection
MRRA	Midcoast Regional Redevelopment Authority
MS	Microsoft
N/A	Not Applicable
NAS	Naval Air Station
NEX	Naval Exchange
NPL	National Priorities List
ONFF	Old Navy Fuel Farm
PA	Preliminary Assessment
PBC	Public Benefit Conveyance
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorobutanoic Acid
PFBS	Perfluorobutane Sulfonate
PFHxA	Perfluorohexanoic Acid

Acronyms, continued



PFHxS	Perfluorohexanesulphonic Acid
PFNA	Perfluorononanoic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PRAP	Proposed Remedial Action Plan
Q&A	Question and Answer
RAB	Restoration Advisory Board
RI	Remedial Investigation
ROD	Record of Decision
SERDP	Strategic Environmental Research and Development Program
SI	Site Investigation
UECA	Uniform Environmental Covenants Act
USEPA	United States Environmental Protection Agency

Base Map with CERCLA Sites

