



# ***Former NAS Brunswick***



## ***Restoration Advisory Board Meeting August 6, 2020***





# *Meeting Agenda*



## **Welcome**

- **Introductions**
  - New Business
  - Old Business
- **Virtual Meeting Protocols**
- **Status of FOST 2020-1 and 2020-2**
- **Fifth Five-Year Review**
- **Picnic Pond Update**



# *Meeting Agenda (cont'd)*



- **Operations and Maintenance Activities**
  - Long-Term Monitoring (LTM) Sites
  - Quarry Groundwater Sampling
  - Storm Water Sampling
- **GWETS Carbon Replacement**
- **Site 7 Current and Projected Activities**
- **Upcoming Work**
- **Questions/Wrap-Up**



# *Introductions*



## ➤ **RAB Co-Chairs:**

- Ms. Suzanne L. Johnson, Esq.
- Mr. David Barney, BRAC Environmental Coordinator, Navy BRAC Program Management Office

## ➤ **RAB Members:**

- Mr. Todd Bober, P.E., Remedial Project Manager, Navy
- Mr. Michael Daly, Remedial Project Manager, United States Environmental Protection Agency (EPA)
- Mr. Iver McLeod, Remedial Project Manager, Maine Department of Environmental Protection (MEDEP)



# *Introductions*



## ➤ **RAB Members (continued):**

- Mr. Steve Levesque, Midcoast Regional Redevelopment Authority (MRRA)
- Mr. Paul Ciesielski, Town of Harpswell, Maine
- Mr. Scott Libby, 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



# *Virtual Meeting Protocols*



- **Attendee cameras are not being used; no attendees will be viewed by others.**
- **Attendee microphones will remain muted except when recognized for questions.**
- **Webinar sign-in names will be used for the record.**
- **Meeting minutes will be prepared by Stenographer consistent with previous meetings**
- **Please hold questions or comments or enter them in Q&A box as they arise; they will be addressed after each presentations.**



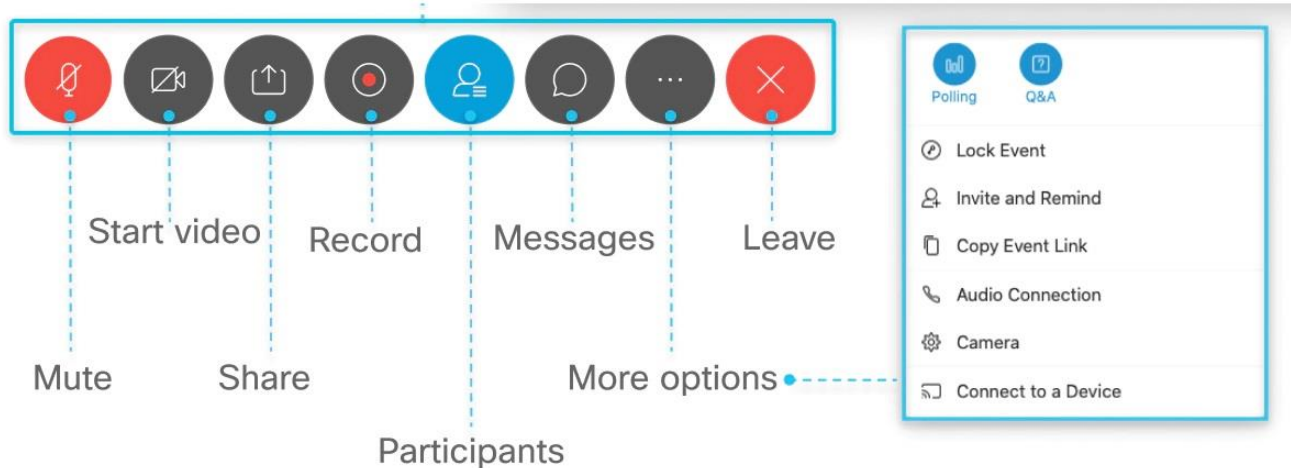
# Q&A Options



1) **Raise your hand** to be recognized and have your microphone unmuted. Click “**Participants**” button to view panel and the hand icon.

Raise Hand  in the **Participants** panel to signal a question

2) **Enter a comment or question by typing it in the Q&A box.** Click the three white dots in the control panel to view and open the Q&A box.



3) **Phone-only** attendees can **dial \*3** to indicate they would like to speak. Callers will have their microphone unmuted and have the opportunity to make a comment.



# *Status of FOST 2020-1 and -2*

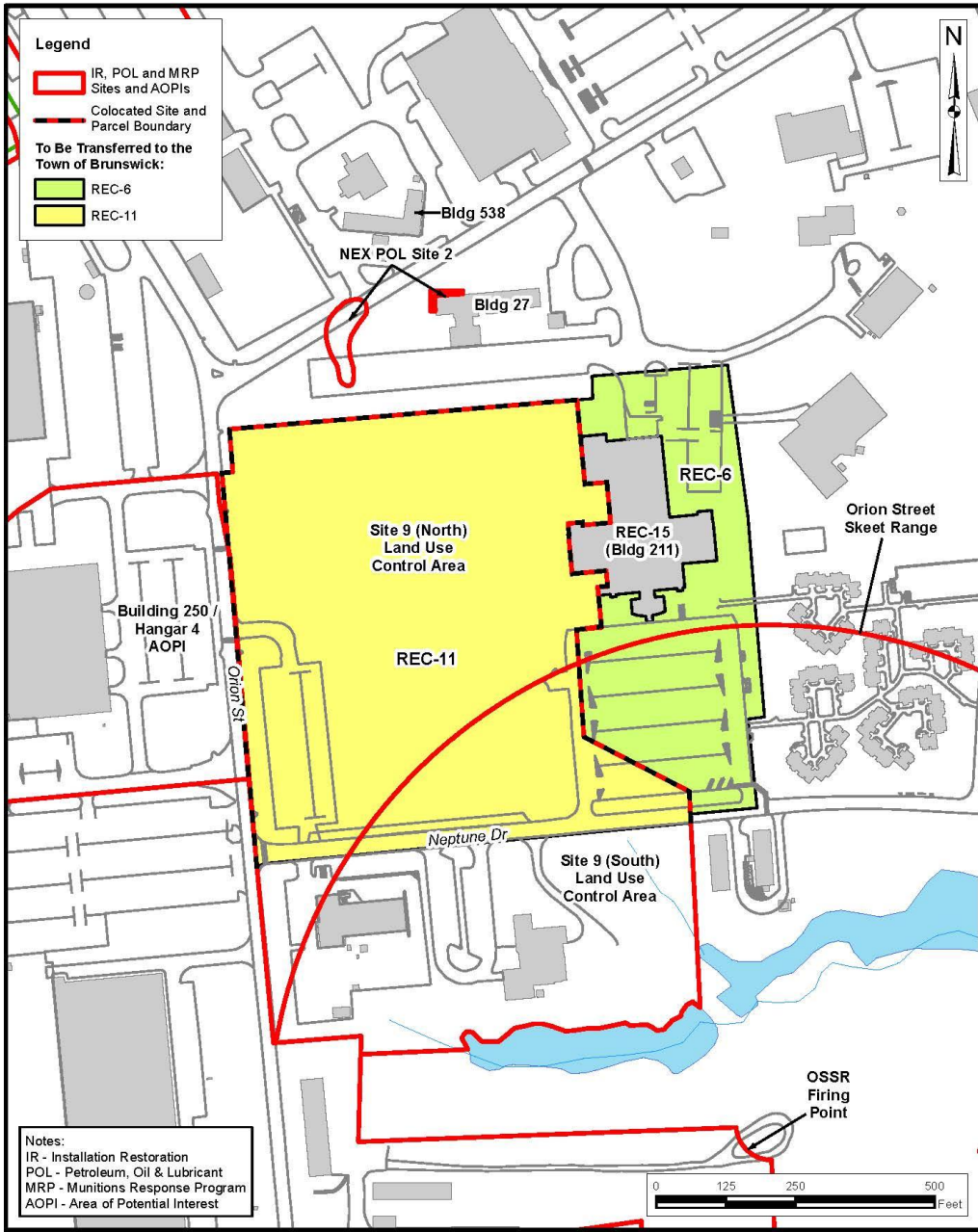
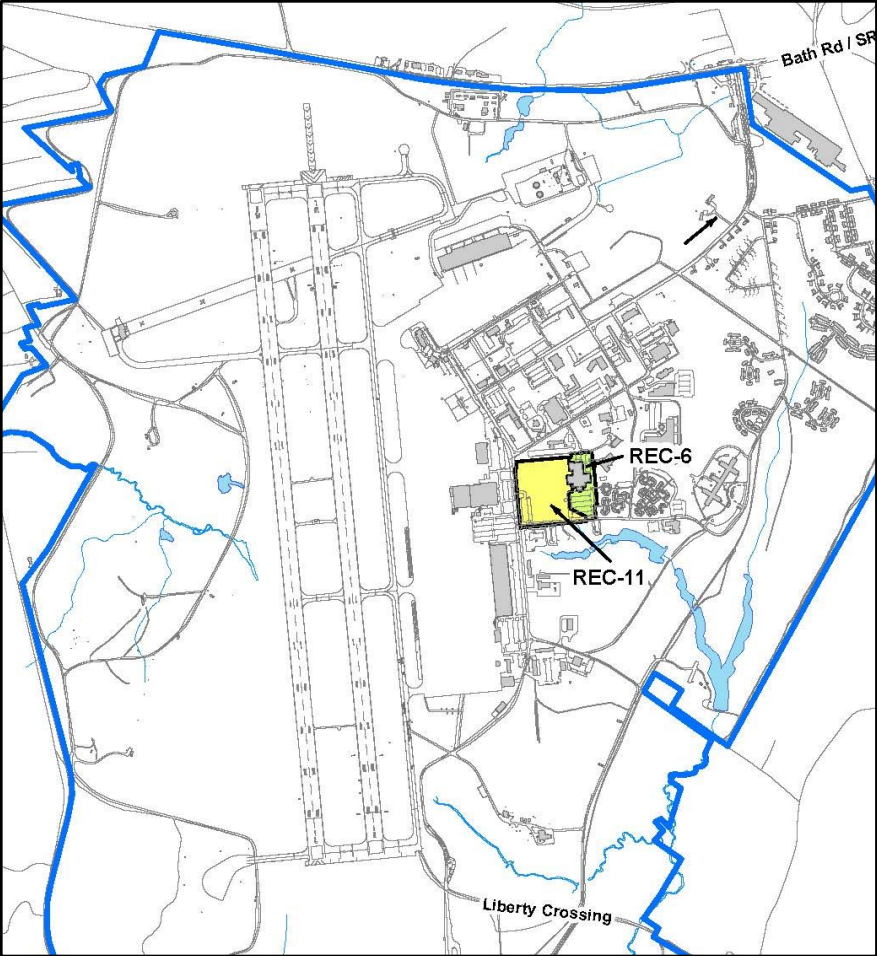


## **FOST 2020-1 Transfer Parcels**

- **Parcel REC-6; 3.8 Acres North, East and South of Building 211**
- **Parcel REC-11; 11.7 Acres of Site 9 Area North of Neptune Drive**
- **Final FOST signed in May 2020**
- **Parcels assigned to National Park Service in June 2020 for conveyance to Town of Brunswick for future recreational uses**



# FOST 2020-1 Transfer Parcels



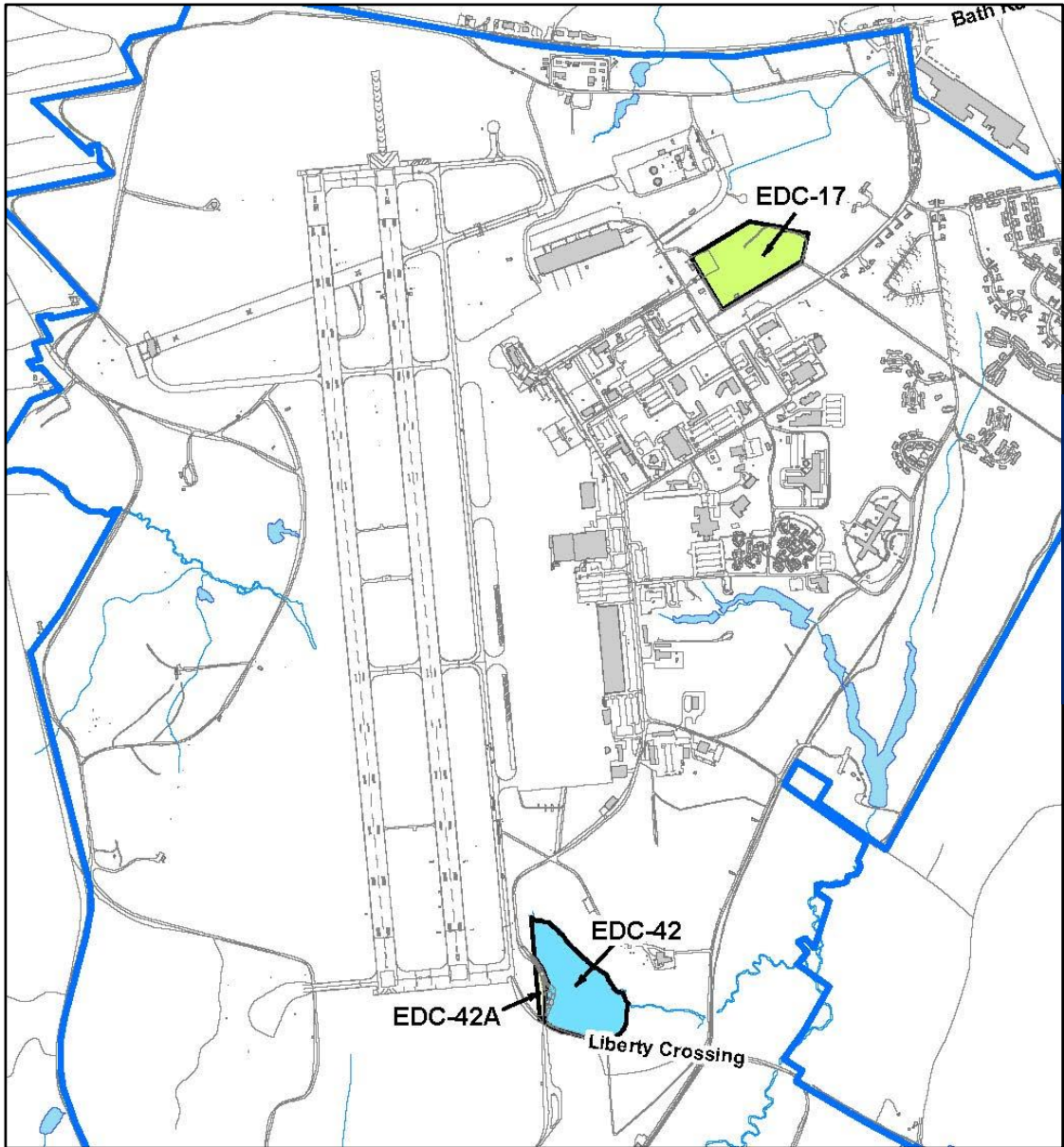


# *Status of FOST 2020-1 and -2*



## **FOST 2020-2 Transfer Parcels**

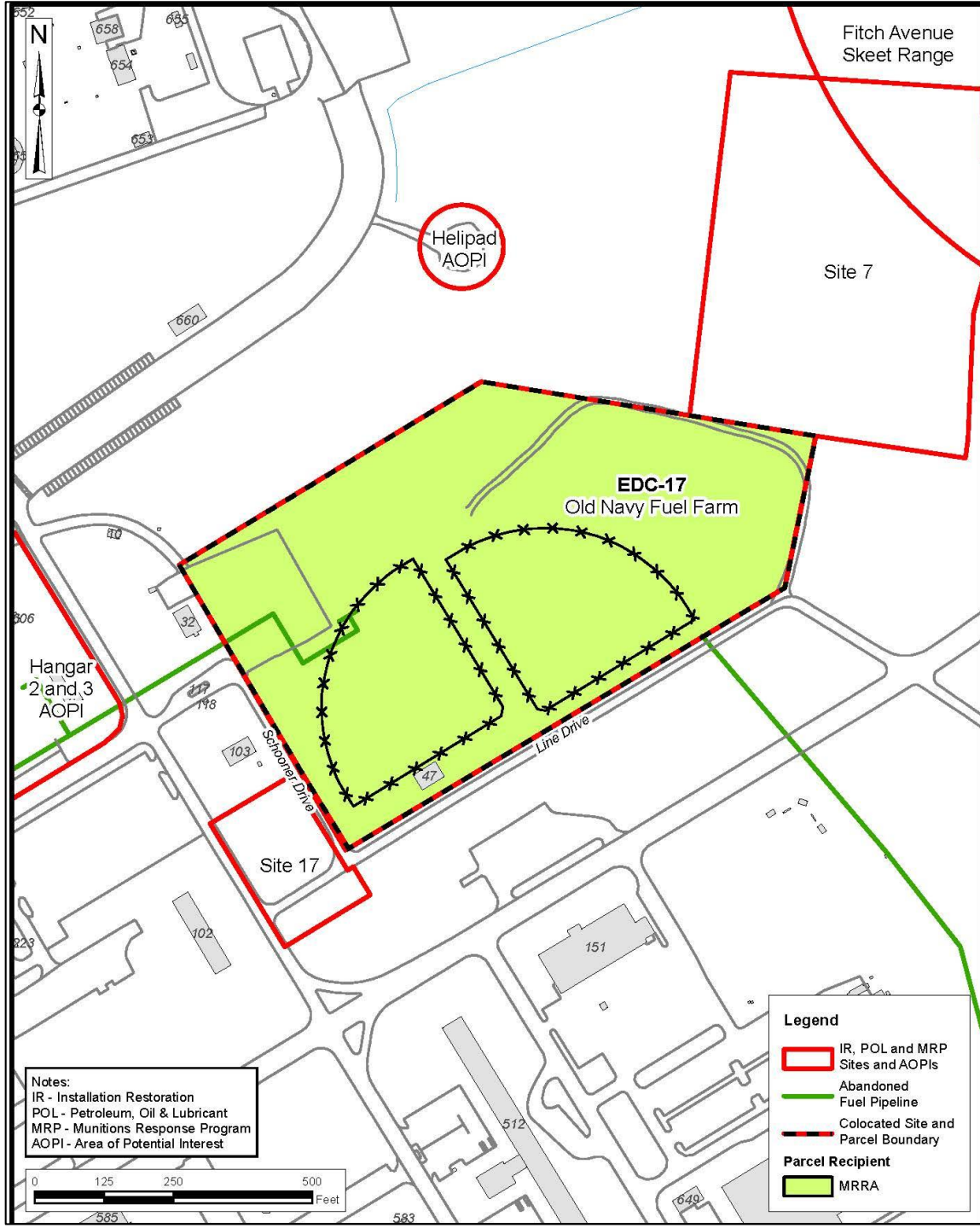
- **Parcel EDC-17; 12.6 Acres of the Former Old Navy Fuel Farm**
- **Parcel EDC-42; 16.0 Acres of Site 2 including Dyers Gate Area**
- **Navy began FOST preparation June 2020; projected to be signed by December 2020**
- **Parcels to be transferred to MRRA**
- **Planned future uses unknown, but reuse plan lists professional office/community mixed use for EDC-17 and business and technology industries and natural areas for EDC-42**



# FOST 2020-2 Transfer Parcels

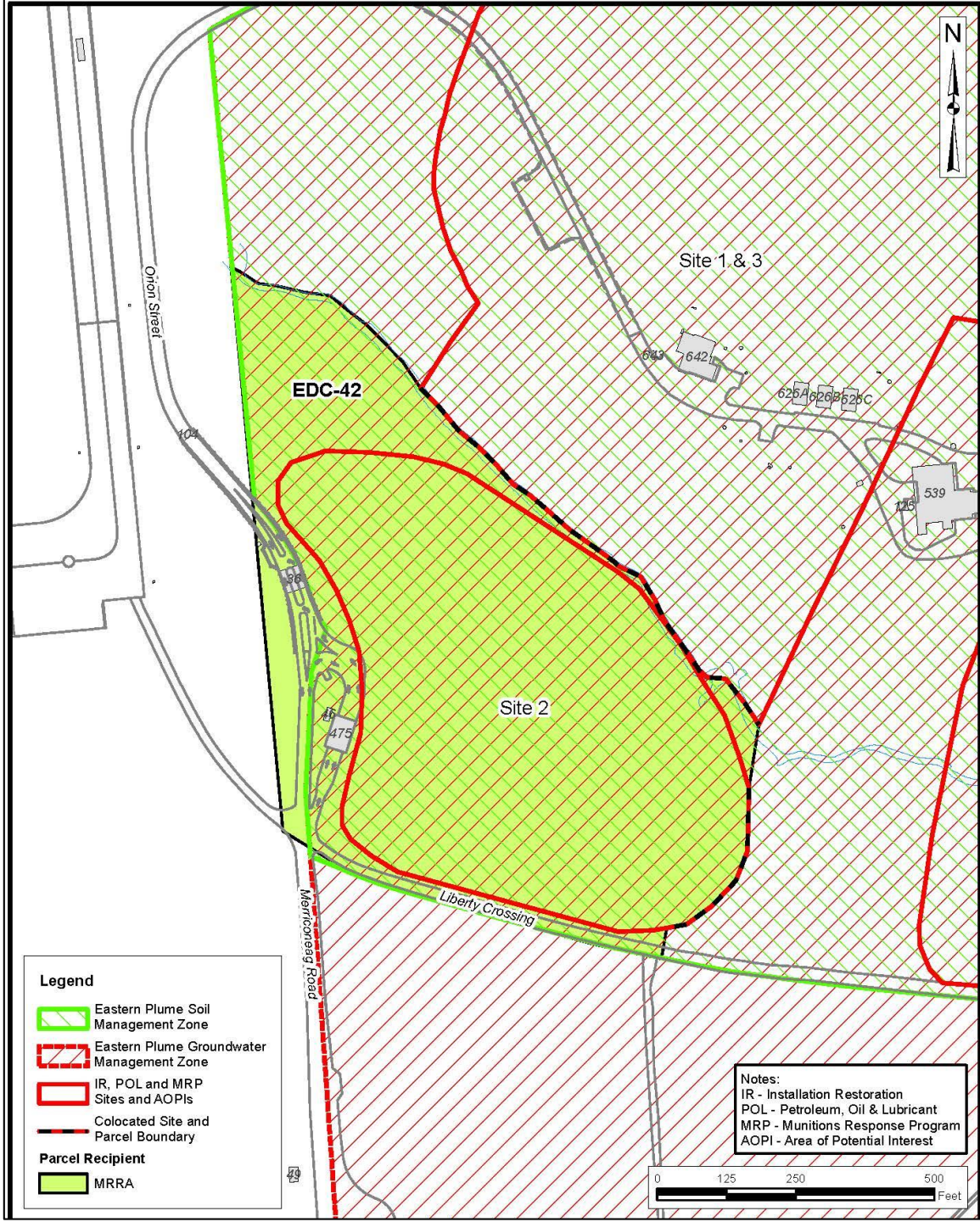
# FOST 2020-2 Transfer Parcels

## Sites within or Adjacent to Parcel EDC-17



# FOST 2020-2 Transfer Parcels

## Sites within or Adjacent to Parcel EDC-42





# ***Five-Year Review***



- **Noted during November 2019 RAB meeting**
- **Newspaper notice announcing initiation of the review ran in Brunswick Times-Record on June 2, 2020**
- **Objective - Ensure that implemented remedies remain protective of human health and the environment**
- **Reviews do not include sites that do not yet have signed RODs or contaminants not identified as chemicals of concern in RODs**



# *Five-Year Review*



- **Navy solicited comments and concerns about the remedies through questionnaires sent to site stakeholders**
- **Final document must be signed by September 2020**
- **Public notice of completion of five-year review to be published in Brunswick Times-Record**
- **Findings will be presented at the next RAB meeting**



# ***Picnic Pond PRAP and ROD***



- **Public Presentation and Informational Meeting - September 11, 2019, at Bowdoin College**
- **Public Comment Period 10/9 to 11/8, 2019**
- **Proposed Remedial Action Plan (PRAP) Informational Open House and Public Hearing - October 23, 2019, at Curtis Memorial Library**
- **Appendix G of the Record of Decision (ROD) includes Responses to Comments (RTC)**
- **35 comments were submitted in writing**
- **Navy has prepared responses for incorporation into the ROD**
- **Draft ROD sent to EPA Region1 and Maine DEP on May 13, 2020**
- **Final ROD anticipated in Mid September 2020**





# *Picnic Pond Sediment*



## Summary of Human Health and Ecological Risks

<b>Pond/Area</b>	<b>Human Health Risk</b>	<b>Ecological Risk</b>
<b>Pond A</b>	<b>None identified</b>	<b>Prevent or reduce risk to ecological receptors to concentrations of DDX and PAHs in sediment exceeding PRGs</b>
<b>Pond B</b>	<b>Prevent exposure to recreational users to concentrations of lead in sediment exceeding PRG</b>	<b>Prevent or reduce risk to ecological receptors to concentrations of PAHs in sediment exceeding PRG</b>
<b>Pond C Area</b>	<b>None identified</b>	<b>None identified</b>
<b>Picnic Pond</b>	<b>Prevent or reduce risk by recreational users to concentrations of TPH in sediment exceeding PRG</b>	<b>Prevent or reduce risk to ecological receptors to concentrations of PAHs in sediment exceeding PRG</b>



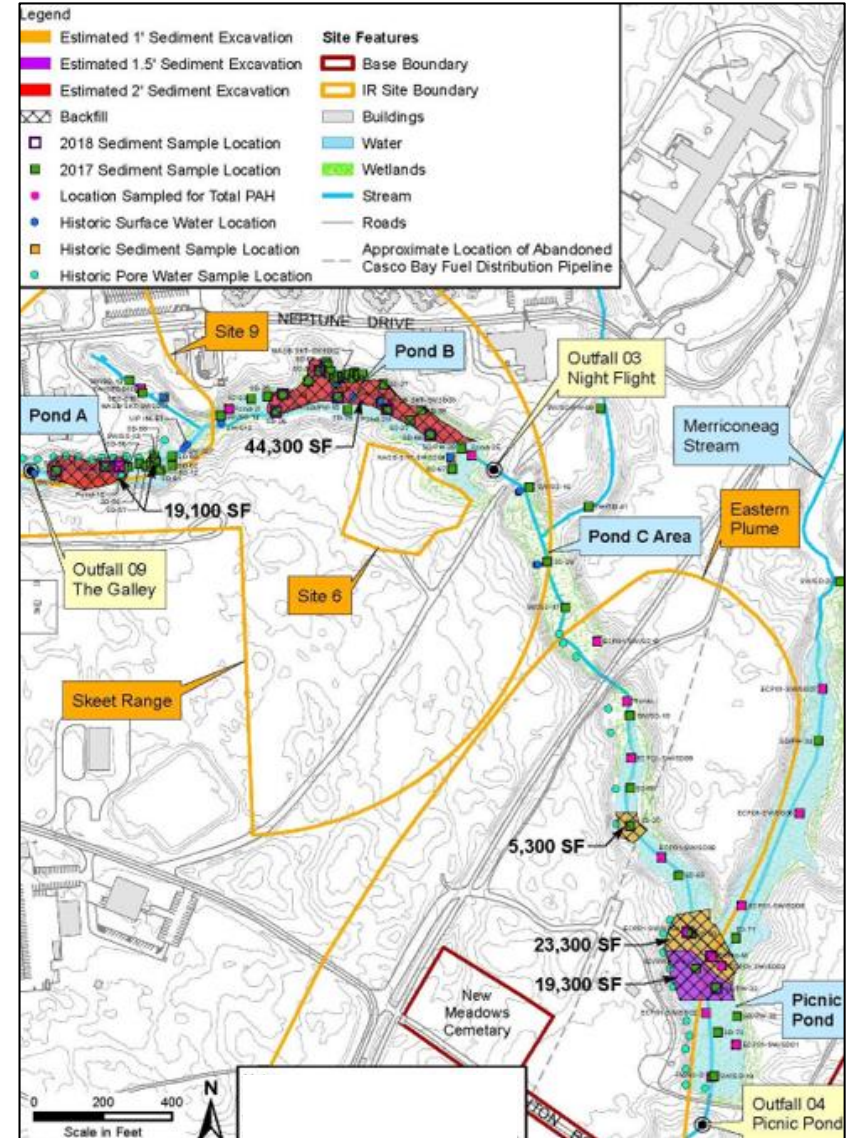
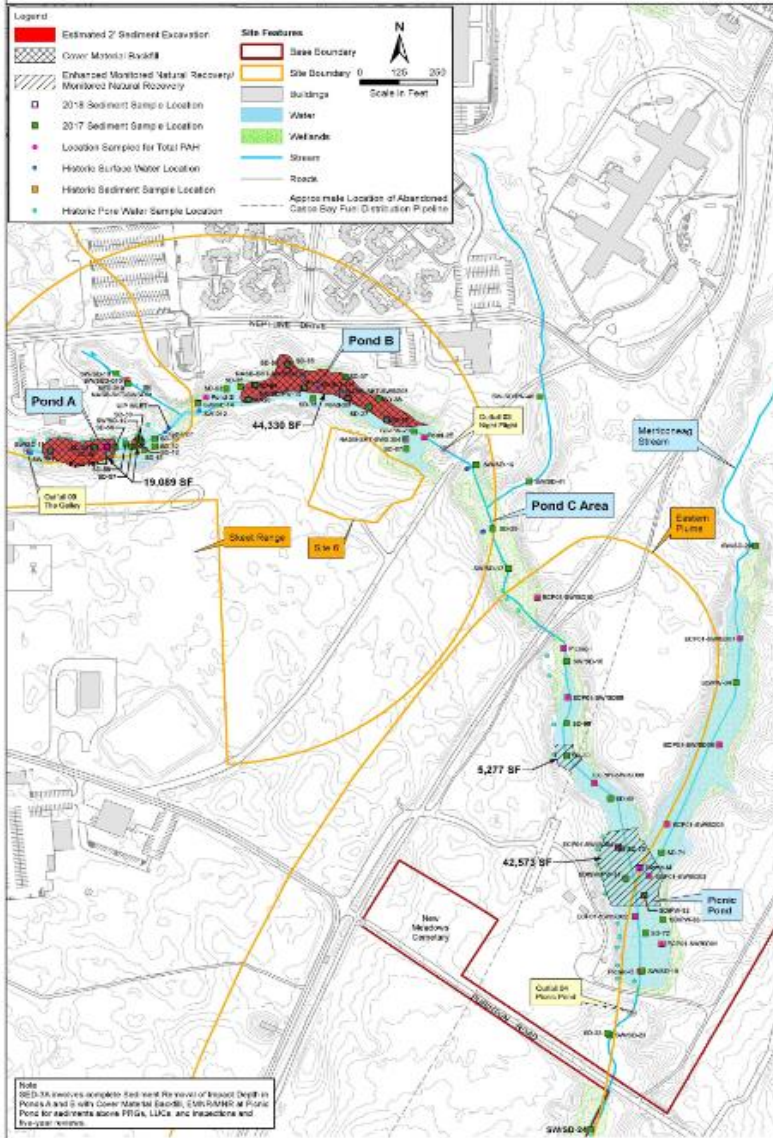
# ***Picnic Pond Summary***



- **Draft Navy ROD recommends removal of sediments that result in elevated risk above PRGs in Pond A, Pond B, and Picnic Pond**
- **ROD expected to be finalized in September 2020**
- **Conduct pre-design investigation(s), as necessary**
- **Develop scope and contract sediment excavation**
- **Perform Remedial Action, summer/fall 2021**



# PRAP to ROD





# *Long-Term Monitoring*



## **Fall 2019 LTM Sampling Event**

- **Sites 1/3 Landfill, Site 2, Site 9, Site 17, Eastern Plume**
  - Sampling performed in October 2019
  - Data review and evaluation completed, LTM reports in Navy review



# *O&M Activities*



## **Spring 2020 LTM Sampling Event**

- **Site 7 – 12 wells, cadmium and manganese analysis**
- **Eastern Plume – 10 wells plus GWETS influent/effluent, CVOCs and 1,4 dioxane analyses**
  - Sampling performed in early June
  - Lab analysis underway, some results in



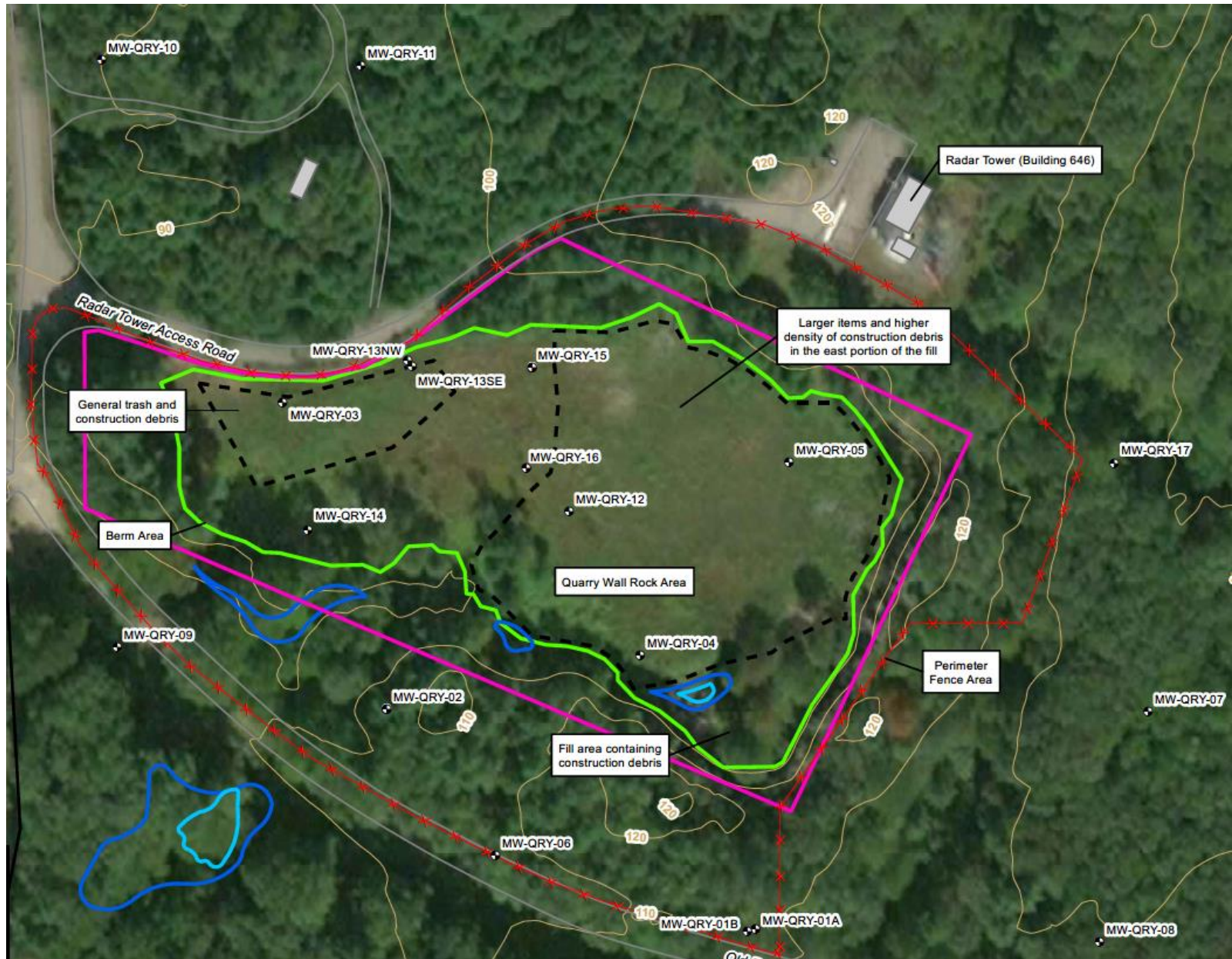
# *O&M Activities (cont'd)*



## **Other Spring 2020 Sampling**

- **Quarry** – 19 wells, PAH, explosives, metals analyses
- Purpose: Take a snapshot of existing wells for groundwater quality and flow direction and use this information to develop Long Term Monitoring Program for Quarry.

# Quarry Groundwater Sampling





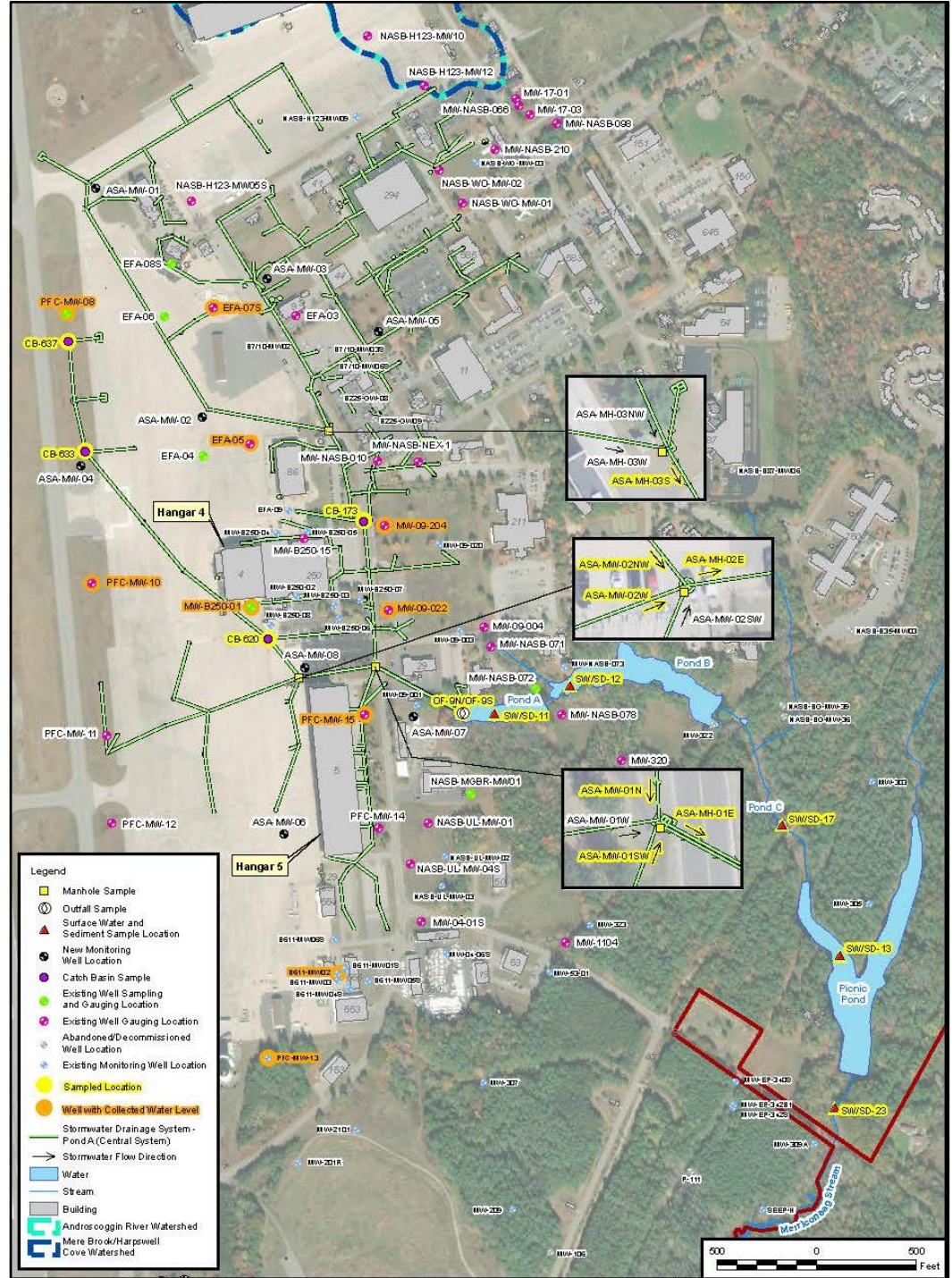
## *O&M Activities (cont'd)*



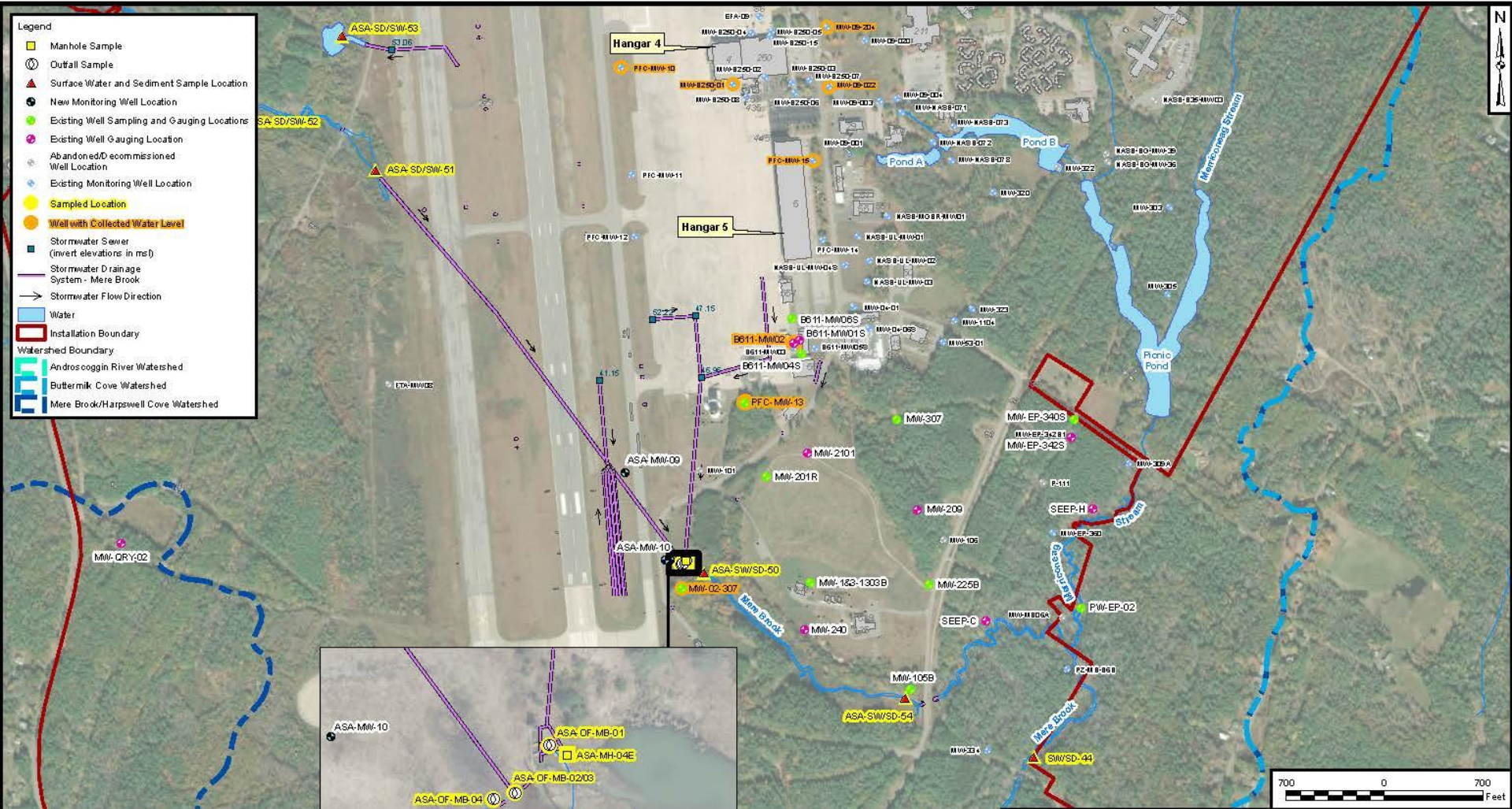
- **Airfield Area Storm Drain System – Catch basins, outfalls, surface water, sediment (48 samples), PFAS analysis**
  - Purpose: Collect snapshot of PFAS levels in storm water system to assist in updates to site conceptual model
  - Sampling performed in early June
  - Lab analysis underway



# Stormwater Sample Locations Pond A System and Picnic Pond



# Stormwater Sample Locations Mere Brook System





# ***GWETS Carbon Replacement***



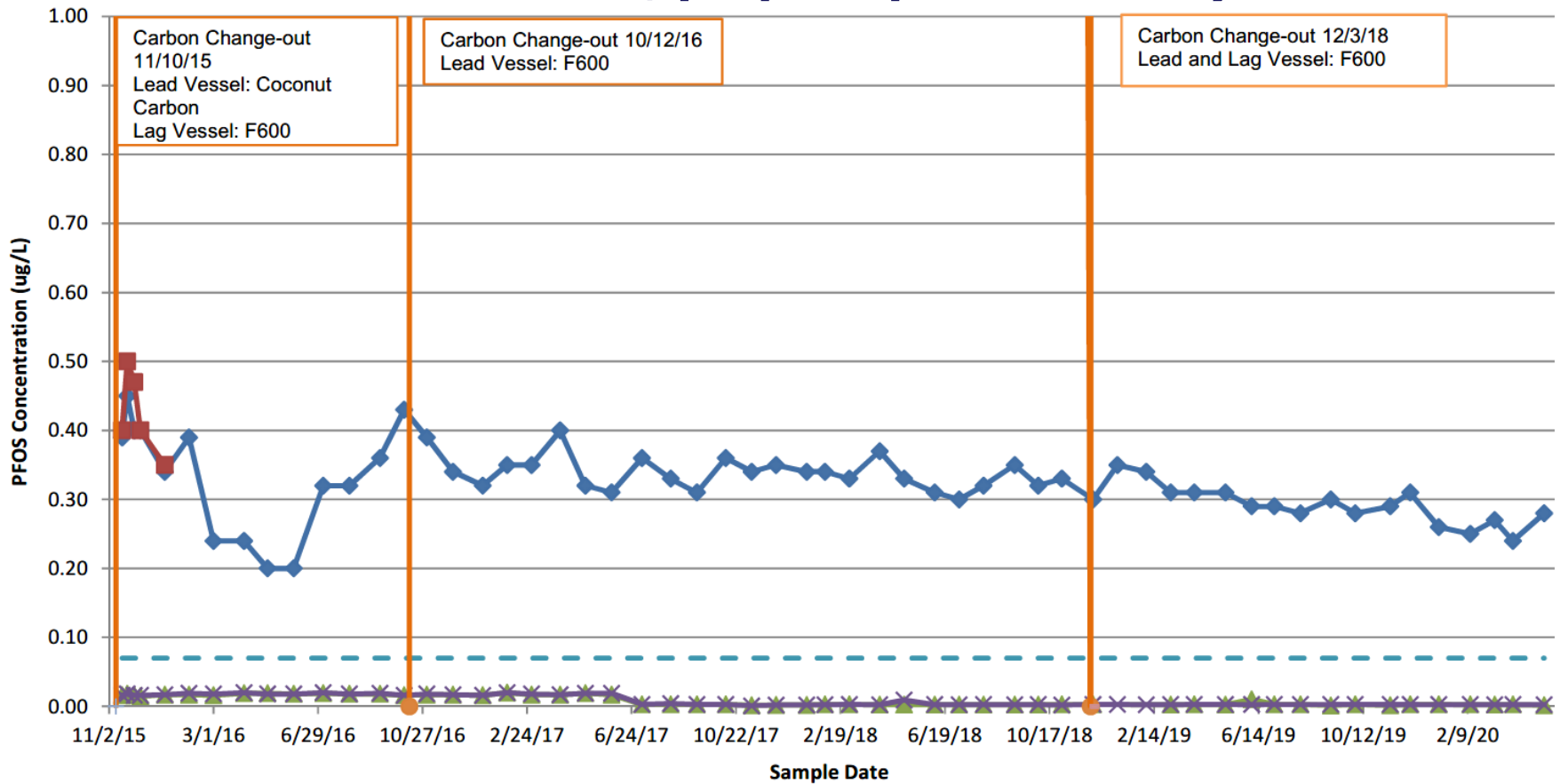
- **Monthly sampling at the GWETS is being performed for PFAS compounds**
- **PFAS treatment consists of passing water through two granular activated carbon (GAC) tanks, hooked up in series, for PFAS removal via adsorption**
- **Monthly samples are collected from the following locations:**
  - Treatment plant influent
  - Between lead (1<sup>st</sup>) and lag (2<sup>nd</sup>) GAC carbon tanks
  - After lag carbon tank
- **Recent sampling results show lead GAC unit is experiencing breakthrough of PFAS compounds**
- **Lag GAC tank is still effectively treating PFAS compounds prior to discharge to the infiltration gallery**



# GWETS Carbon Replacement



## PFOS Results (blue – influent; green – between carbon vessels; purple – plant effluent)

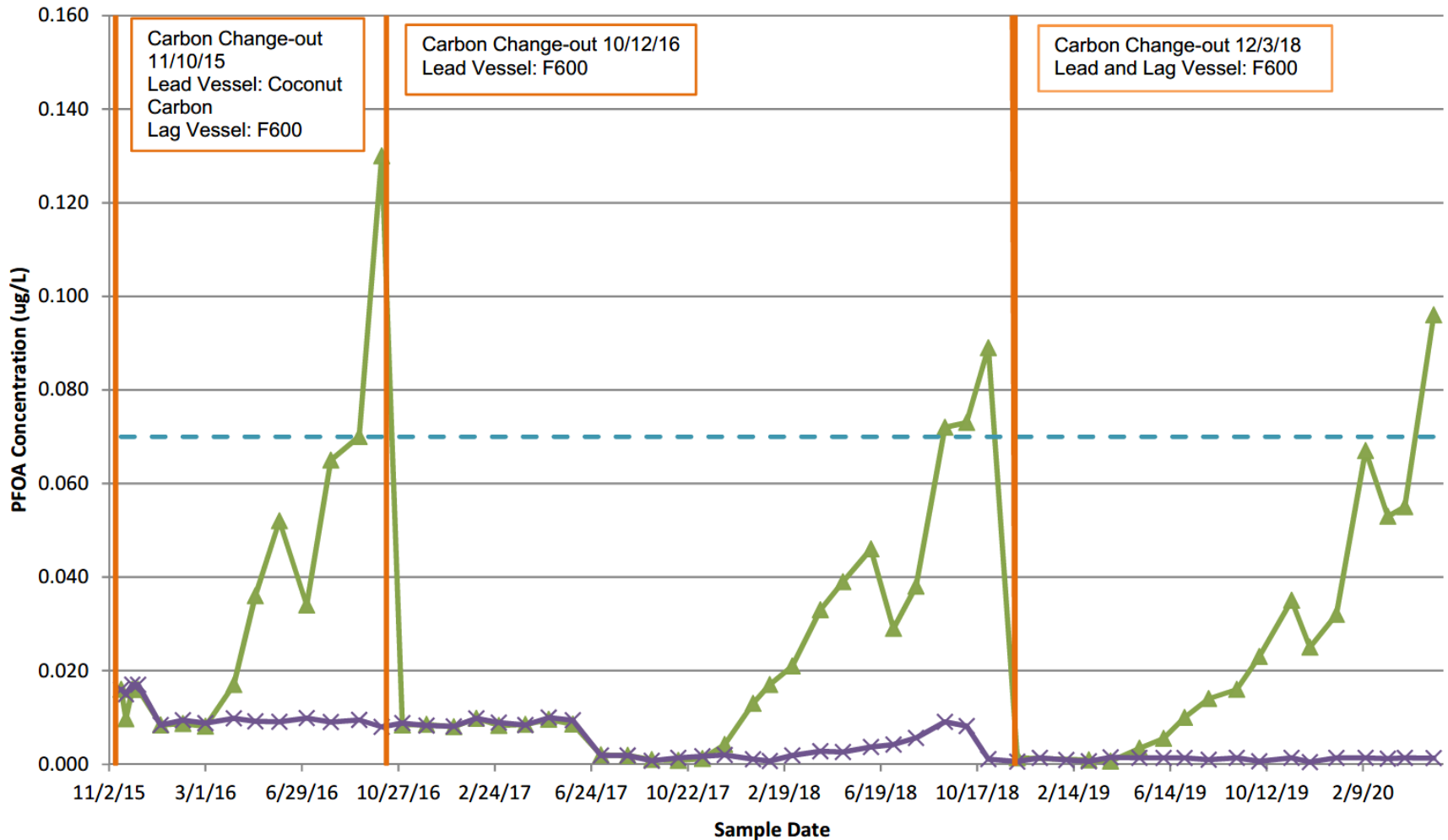




# GWETS Carbon Replacement



**PFOA Results [blue – influent (off-scale, ~ 1.5 ug/L); green – between vessels; purple – plant effluent]**





# ***GWETS Carbon Replacement***



## **Path forward**

- **The Navy is tasking the O&M Contractor to perform a carbon changeout on the lead GAC vessel**
  - Carbon replacement tentatively planned for September 2020
- **Monthly monitoring will continue**



# *Site 7 Activities*



- **During 2017 soil excavation activities to address cadmium-contaminated soil, radiological devices and inert munitions items were discovered at the former DRMO**
- **Metal debris signatures (geophysical anomalies) have been identified within and outside of the site boundary and are assumed to be buried scrap metal/metallic debris associated with former DRMO activities**
- **Navy decided to investigate the anomalies at the site and surrounding areas to determine whether these areas contained munitions items**
- **The probability of encountering live munition items related to former DRMO activities is low**

The base map showing DGM image and anomaly densities is from the 2017 Subsurface Anomaly Survey Technical Memorandum Report. 100% DGM of the central area was performed. This area is proposed for DGM recollection along with 100% DGM of the rest of the investigation area (up to 5 acres). Prior DGM is no longer valid, because site remedial activities were conducted after DGM was performed.

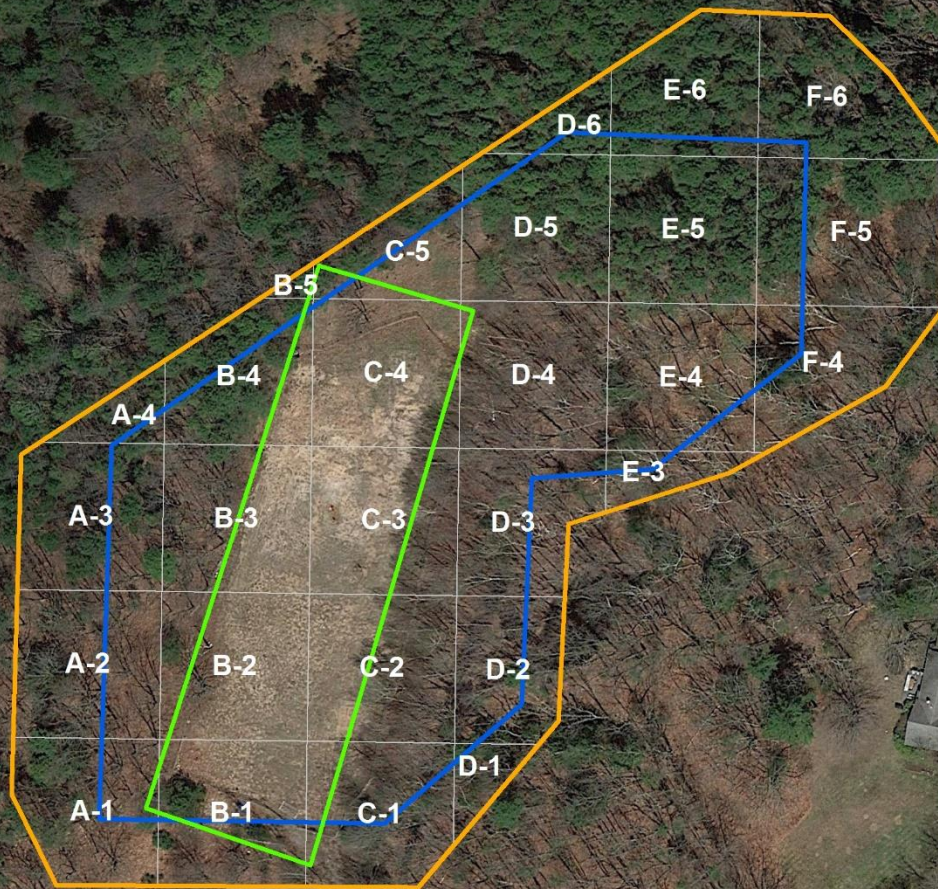


Photo Date: 1958

### Legend

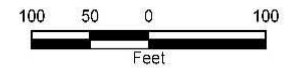
- Estimated Historical DRMO Boundary - 1.34 acres
- Investigation Area Boundary - 3.09 acres
- Proposed Expanded Investigation Area Boundary - 5.0 acres
- 100-ft Grid





### Legend

- 100-ft Grid
- Prior Soil Remediation Project Site (Approximately 1.0 Acres)
- Recommended Investigation Area Boundary per 2015 Survey (3.1 acres)
- Proposed Investigation Area Boundary (5.0 acres)








Coordinate System: NAD 1983 UTM Zone 19N  
Units: Meter

Former NAS Brunswick

## Investigation Area Boundary Map

Brunswick, Maine

### Legend

-  100-ft Grid
-  Private Parcel Boundary - Proposed for New Residential Construction
-  Expanded RI Removal Action Area (1.9 acres)
-  Proposed Investigation Area Boundary (5.0 acres)
-  Contingency Step-Out Area (13.3 acres)



Drawn By: JAL	Scale: 1 inch = 100 feet	Rev: 1
Checked By: DM	Date Drawn: 5-1-2020	
Submitted By: RH	Revision Date: 5-29-2020	



Path: E:\Brunswick\MXD\Site 7\Fig 6-1 Investigation Area Boundary Map.mxd





# *Site 7 Activities*



- **5-acre RI to conduct Digital Geophysical Mapping (DGM) over 100% of the investigation area**
  - Statistics-based approach will be used to select locations to intrusively investigate a number of individual DGM targets
  - Exploratory test digs will be performed at the selected locations
  - Radiological screening will be conducted during munitions activities
- **The types of MEC and/or MPPEH known or suspected to be present include the following:**
  - Mk 23 Practice Bomb Body (approximately 8 inches long) inert/empty (30 recovered)
  - AN-M57 Flare (2 recovered)
  - MK 13 Flare (1 recovered)



# *Site 7 Activities*



- **Nine radiological devices and two areas of soil containing elevated radiological activity were identified and removed from two soil remediation areas at Site 7 (from 2017 Removal Action)**
- **Principal study questions**
  - What are the vertical and horizontal extents of the MEC hazard?
  - What is the nature and extent of items of potential radiological concern?
  - What types of MEC are present?
  - What is the associated explosive hazard (if any) for the various items of concern?



# *Site 7 Activities*



- **The work schedule was accelerated and work is being conducted in Captain's Way area first where development is planned in the near future**
- **Results of additional munitions investigation activities in Site 07 will be used to determine if new approach for the site is warranted**

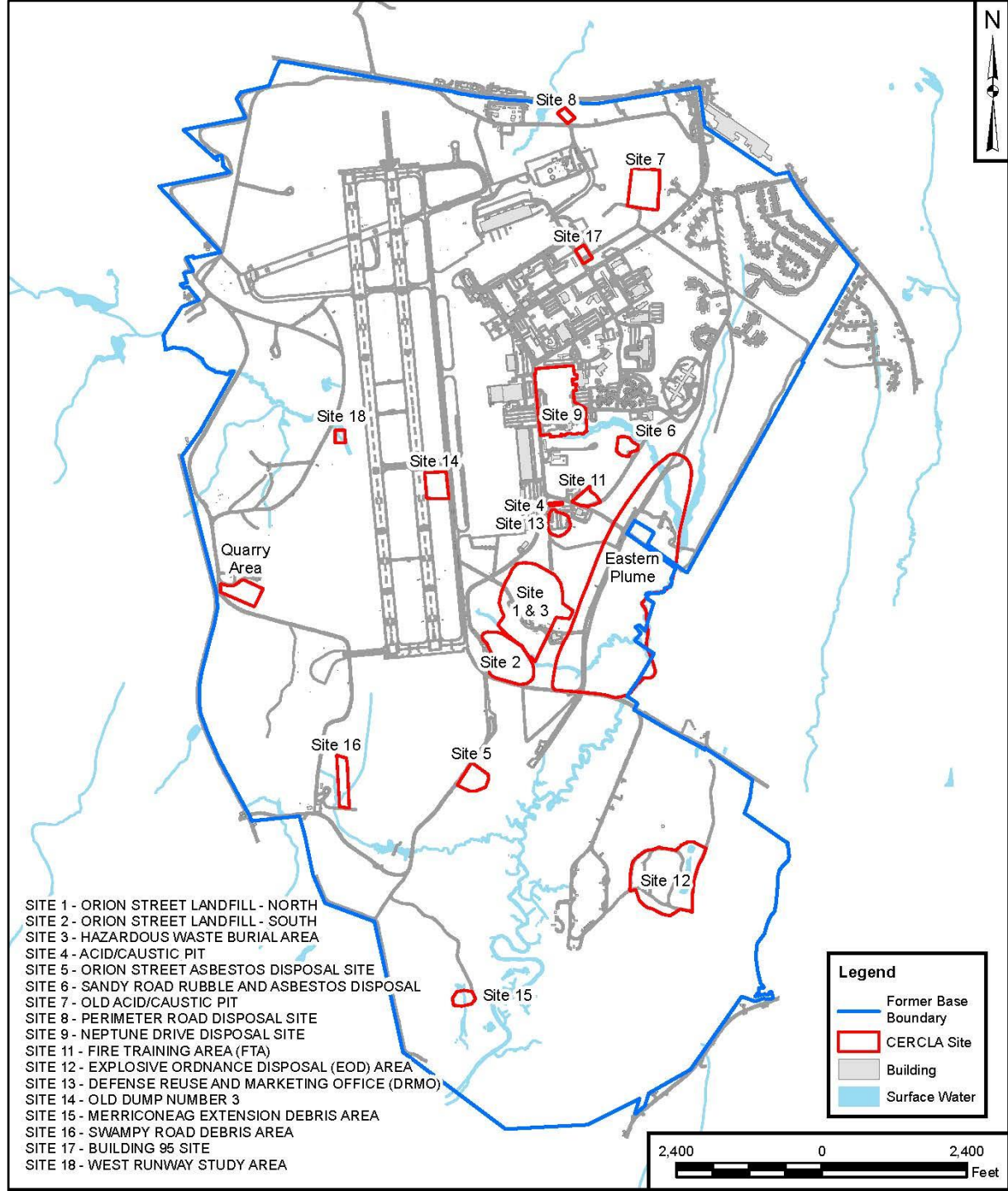


# *Upcoming Work*



- **Fall 2020 LTM sampling**
- **Continued Site 07 Evaluation**
- **Kickoff of the base wide PFAS RI (scoping and planning documents)**
- **Continued GWETS operation, replace GWETS Carbon, and monthly PFAS sampling**
- **Planning for extraction well(s) assessment**
- **Initiation of private PFAS well sampling**
- **Development of Draft Quarry GW Monitoring Work plan**

# Base Map with CERCLA Sites



- SITE 1 - ORION STREET LANDFILL - NORTH
- SITE 2 - ORION STREET LANDFILL - SOUTH
- SITE 3 - HAZARDOUS WASTE BURIAL AREA
- SITE 4 - ACID/CAUSTIC PIT
- SITE 5 - ORION STREET ASBESTOS DISPOSAL SITE
- SITE 6 - SANDY ROAD RUBBLE AND ASBESTOS DISPOSAL
- SITE 7 - OLD ACID/CAUSTIC PIT
- SITE 8 - PERIMETER ROAD DISPOSAL SITE
- SITE 9 - NEPTUNE DRIVE DISPOSAL SITE
- SITE 11 - FIRE TRAINING AREA (FTA)
- SITE 12 - EXPLOSIVE ORDNANCE DISPOSAL (EOD) AREA
- SITE 13 - DEFENSE REUSE AND MARKETING OFFICE (DRMO)
- SITE 14 - OLD DUMP NUMBER 3
- SITE 15 - MERRICONEAG EXTENSION DEBRIS AREA
- SITE 16 - SWAMPY ROAD DEBRIS AREA
- SITE 17 - BUILDING 95 SITE
- SITE 18 - WEST RUNWAY STUDY AREA

**Legend**

- Former Base Boundary
- CERCLA Site
- Building
- Surface Water





*Questions?*



**Questions?**





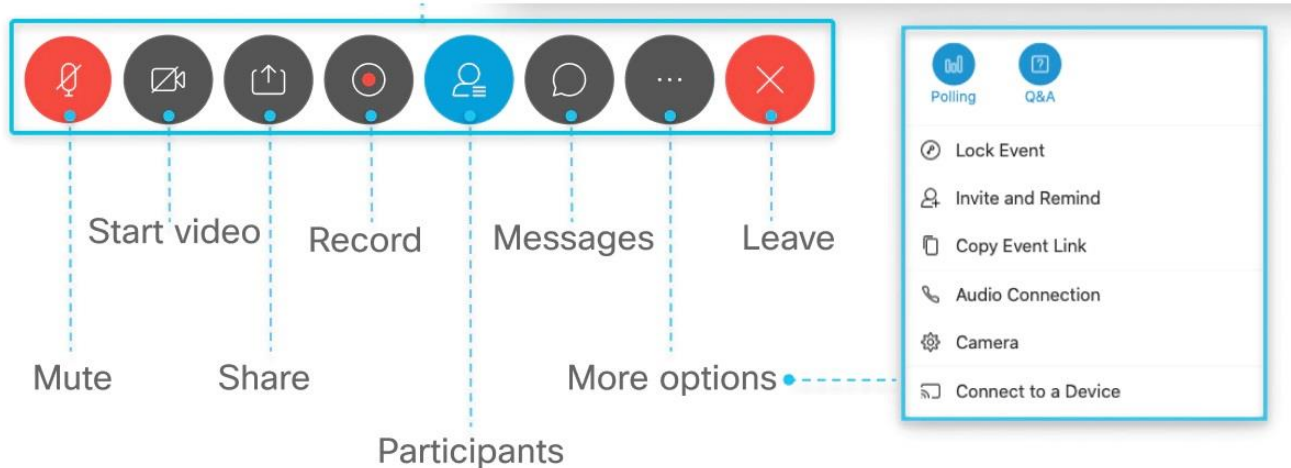
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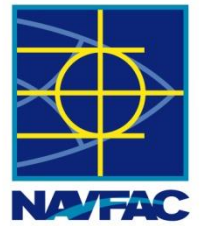
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***Thank You!***



**Thank you for attending today's meeting!**

**Next RAB Meeting: Tentatively planned for  
Wednesday, November 18, 2:00 pm**