



# **Naval Research Laboratory – Chesapeake Bay Detachment Restoration Advisory Board Meeting**

**April 17, 2024**

**5:00 - 7:00 p.m.**

# Introductions

Community RAB Members		
<b>David Harris, Community Co-Chair</b>	Vivian Cawood	Pat Durbin
Blenda Eckert	Tom Eckert	Mark Fisher
Michael Gilliam	Will Hager	Kevin Britt
Robin Harris	Larry Jaworski	Brendan Lumsden
Greg Morris	Michael Rooney	Allison York
Navy Team		
<b>Ryan Mayer</b> <b>NAVFAC Remedial Project Manager</b> <b>Navy Co-Chair</b>	Anna Lesichar NRL-CBD	
Peggy Williams Maryland Department of the Environment (MDE)	Curtis DeTore MDE	Jessica Shulman MDE
Andy Bogdanski Jacobs	Amy Brand Jacobs	Sarah-Jane O'Brien Jacobs

# Agenda

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- Welcome and Introductions
- Meeting Structure and Guidelines
- Review and Approve Draft October 2023 Meeting Minutes
- Site 9 Supplemental Expanded Site Inspection
  - Questions & Comments from RAB Members
- PFAS Site Updates
  - Questions & Comments from RAB Members
- UXO-001 Proposed Remedial Action Plan
- PFAS Regulatory and Navy Policy Updates
  - Questions & Comments from RAB Members and the Public
- Future Meeting Planning and Adjournment

# Meeting Structure and Guidelines

**Amy Brand - Jacobs**

# Mission and Charter Overview

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**Mission: To establish and maintain open and interactive dialogue between representatives of the Navy, the Maryland Department of the Environment (MDE), and the local community concerning the Environmental Restoration Program (ERP) activities at NRL-CBD. The RAB:**

- Exists to give community access to information about the Navy's Environmental Restoration Program at NRL-CBD.
- Acts as a liaison group to disseminate information to the community and solicit the community for comments.
- Is an advisory group, not a decision-making board.
- Gives community members an opportunity to learn about the ERP; share input, ideas, and concerns; and advise decision-makers.
- Enables the project team to identify and address questions, comments and concerns from the community early and throughout the process.

# Structure of an In-Person RAB Meeting

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- RAB members sit at the table
- The Navy's contractor, Jacobs, will facilitate the meeting, but the Navy and Community Co-Chairs are in charge of the meeting
- RAB members may ask questions and discuss at the end of each presentation
- Public participants will hold questions until the designated time at the end of the meeting\*

# Review of Ground Rules

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- All remarks or questions will be made in a **courteous and respectful manner**. Profanity, angry or violent outbursts, and other types of disrespectful or rude behavior will not be tolerated.
- RAB members will **talk one at a time** and wait to be recognized by a Co-Chair.
- RAB members will be patient when **listening to others speak** and will not interrupt.
- RAB members will **avoid dominating discussion** and will be cognizant of letting others speak.
- Members will **limit side comments** and will not engage in side conversations.
- Comments and questions will be limited to **agenda topics** except during periods on the agenda for open discussion.
- RAB members will turn **cell phones off** or to vibrate and will not check messages or otherwise use cell phones during a meeting except to look something up as related to the meeting. (If needed, RAB members will excuse themselves from the room to take urgent calls.)
- RAB members will discuss any concerns about the discussions or the meeting by one-on-one with a **Co-Chair**.

# **Review and Approval of October 2023 RAB Meeting Minutes**

**Amy Brand - Jacobs**



# Previous Meeting Minutes

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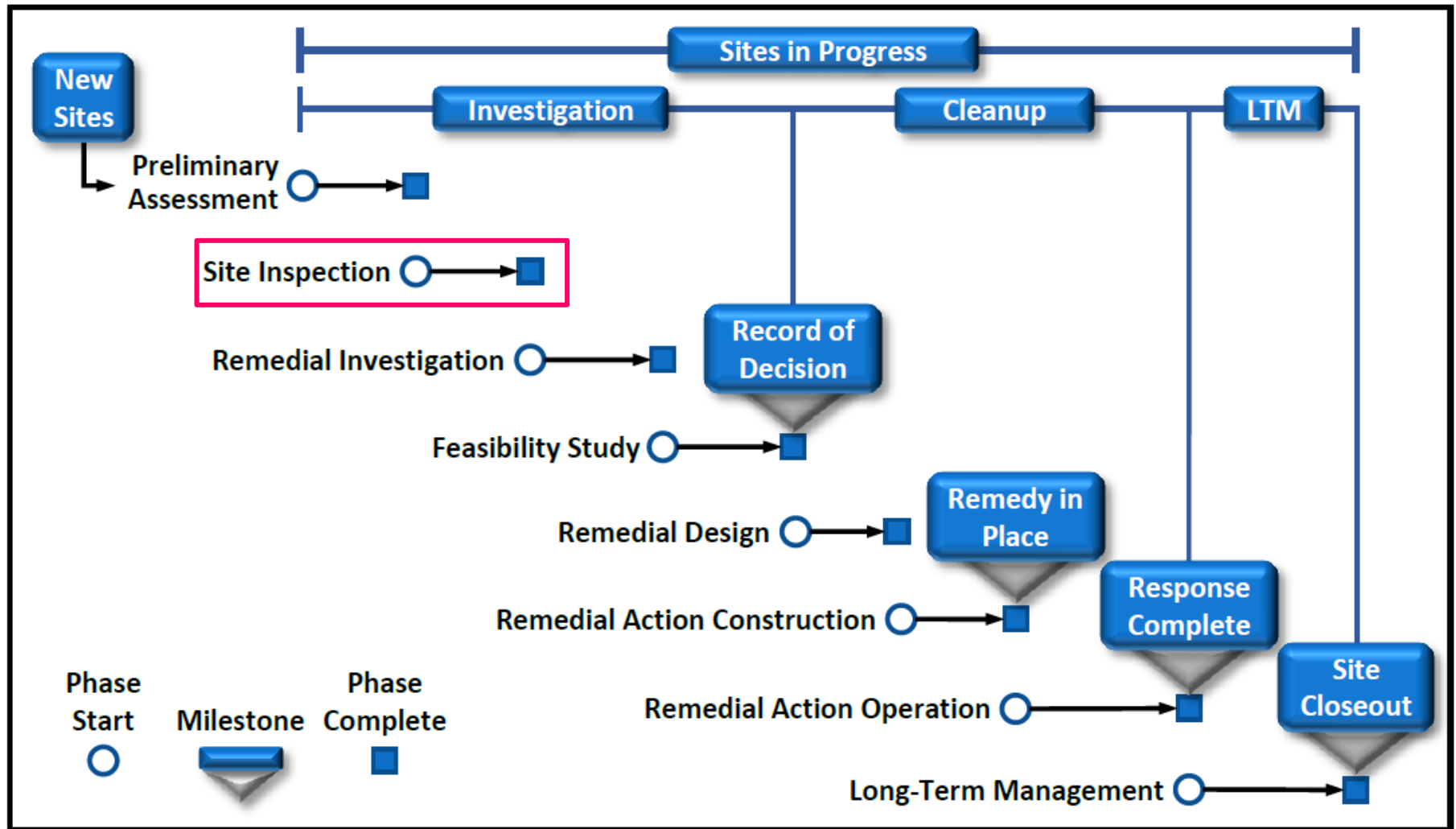
- The Draft October 2023 RAB meeting minutes were distributed to the RAB via email on March 27 for review and comment
- The Final May 2023 RAB meeting minutes have been posted to the NRL-CBD website
- Approval to finalize?

# **Site 9 – Photo-Processing Waste Discharge Supplemental Expanded Site Inspection**

**Andy Bogdanski - Jacobs**

**Ryan Mayer - NAVFAC Washington**

# Overview of the CERCLA Process



# Presentation Overview

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- Site Description
- Previous Investigations
  - Expanded Site Inspection Findings
- Supplemental Expanded Site Inspection (SESI) Objectives and Approach
- SESI Results
- Recommended Path Forward

# Site 9 – Photo-Processing Discharge



# Site 9 Description

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- Site 9 associated with a former photo-processing lab that was housed inside the southeast corner of former Building 43.
- Wastewater from the photo-processing lab was reportedly disposed through a drain that discharged to the ground immediately outside the building
  - The photo-processing lab was used once or twice during each year of operation, generating 10 to 15 gallons of waste solution (e.g., sodium thiosulfate, hydroquinone) per event.
- This operation reportedly occurred from the late-1950s until the early-1960s and again from the late-1960s until 1975.
- The building has been demolished and the site is relatively level and covered with grass. The road network that surrounds the former building is still intact.

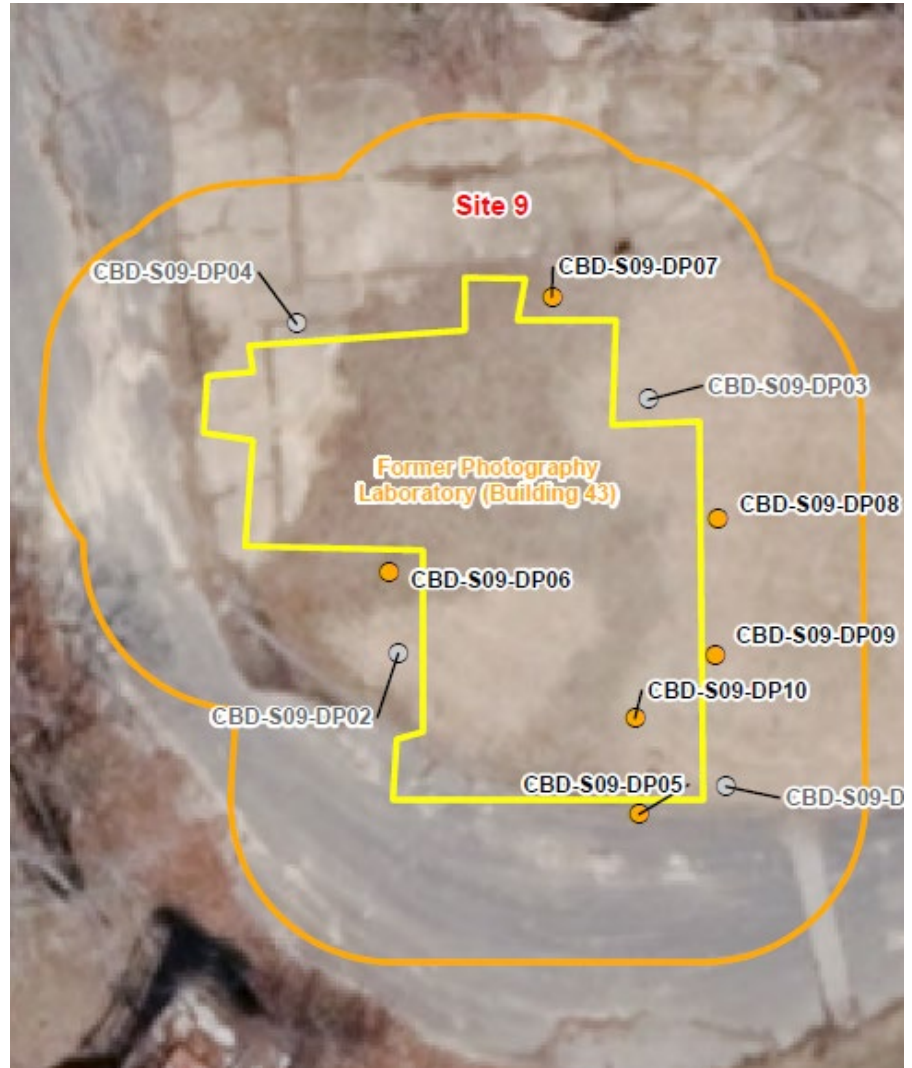
# Previous Investigations

- **Site Inspection (SI) Fieldwork (2012)**

- Surface/subsurface soil and groundwater analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals
- SVOCs identified as contaminant of potential concern (COPC) in surface soil based on ecological risk

- **Expanded SI (ESI) Fieldwork (2018)**

- Additional surface/subsurface soil analyzed for SVOCs and Metals
- Risk screenings updated



# ESI Findings

- No field observations (soil staining, odors) of photo-processing wastewater discharge
- SI and ESI data were used for Human Health and Ecological Risk Screenings

Table 8-3. Human Health and Ecological Risk COPCs for Site 9

Media	COPCs	
	Human Health	Ecological
Surface Soil	None	None
Subsurface Soil	None	N/A
Groundwater	None	N/A

- MDE comment during the ESI Report requested additional analysis for hydroquinone and sodium thiosulfate
  - Agreed that further investigation would be conducted for hydroquinone; however, sodium thiosulfate would not be included as comparison criteria were not available to evaluate potential risk



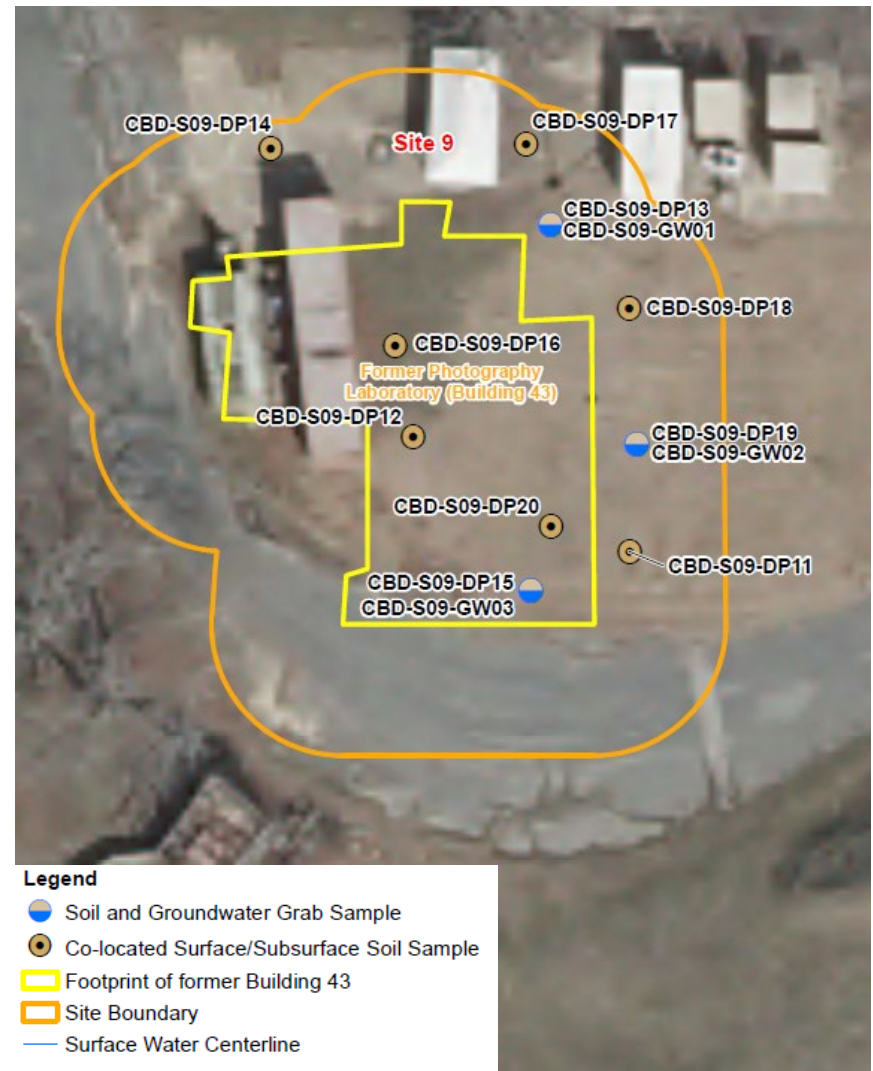
# Supplemental ESI Objectives and Approach

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- Complete presence/absence determination for hydroquinone
  - Collect co-located surface/subsurface soil samples from 10 locations
    - Surface soil collected from 0-6” below ground surface (bgs)
    - Subsurface soil collected from above water table (approx. 10-15 feet bgs)
  - Collect 3 groundwater samples
    - Three temporary wells were installed and screened in the shallow aquifer
- Determine whether there is potential unacceptable risk to human health and/or the environment
  - Updated human health and ecological risk screenings through the Step 3 process

# SESI Results

- No detections of hydroquinone in surface/subsurface soil above detection limit
- No detections in groundwater above detection limit
- Limited uncertainty due to detection limits above screening levels
  - Uncertainty discussed and agreed to by regulators during Sampling and Analysis Plan preparation
  - Hydroquinone has short half-life in environmental media and it has been 50+ years since a release



# Recommended Path Forward

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- Recommendation: No Further Action
- Path Forward: Site closure initiated with regulatory concurrence

# Questions and Comments

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- Open to RAB Members for discussion of Site 9 – Supplemental Expanded Site Inspection presentation
- Questions from the public should be held to the end of the meeting

# **Per-and Polyfluoroalkyl Substances (PFAS) Site Updates**

**Ryan Mayer – NAVFAC Washington**

# Presentation Overview

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- Site 10 – Fire Testing Area
  - On-Base Remedial Investigation (RI) Sampling and Analysis Plan (SAP)
- Site 10 - Fire Testing Area
  - Off-Base RI SAP
- Site 12 - Building 50 Former Firehouse
  - RI SAP
- Interim Measures
  - 100% Basis of Design and Permitting
  - Action Memorandum
  - Treatment Unit Construction

# Site 10 On-Base RI SAP

- Objectives
  - Define nature and extent of PFAS in soil, groundwater, surface water, and sediment
  - Evaluate fate and transport of PFAS in environmental media
  - Evaluate risks to human health and the environment
- Tentative Schedule
  - Draft SAP for MDE review summer 2024
  - Final SAP anticipated fall 2024



# Site 10 Off-Base RI SAP

- Objectives
  - Define nature and extent of PFAS in surficial groundwater, surface water, and sediment
  - Evaluate fate and transport of PFAS in environmental media
  - Evaluate risks to human health and the environment
- Tentative Schedule
  - Draft SAP for MDE review summer 2024
  - Final SAP anticipated fall 2024





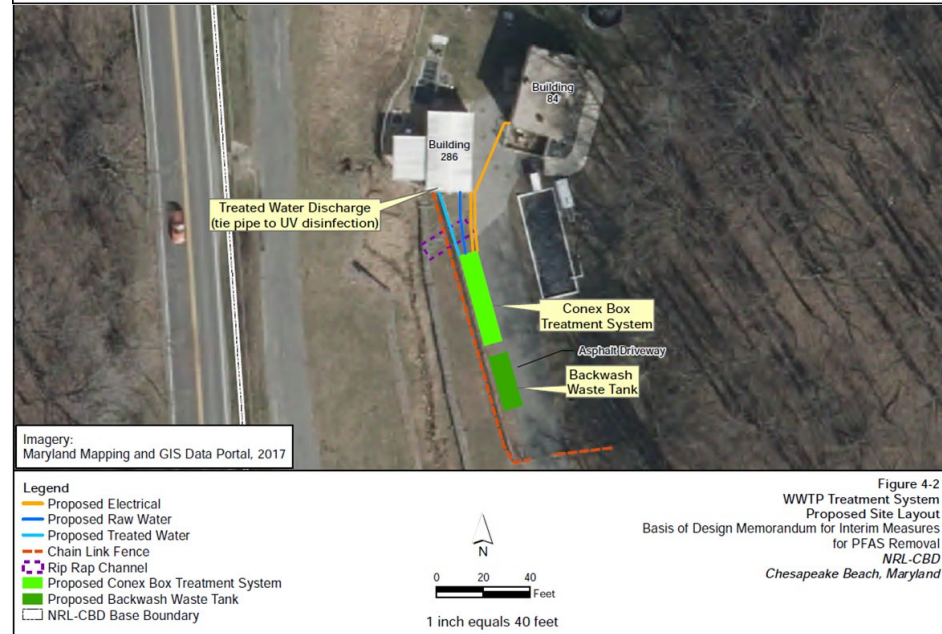
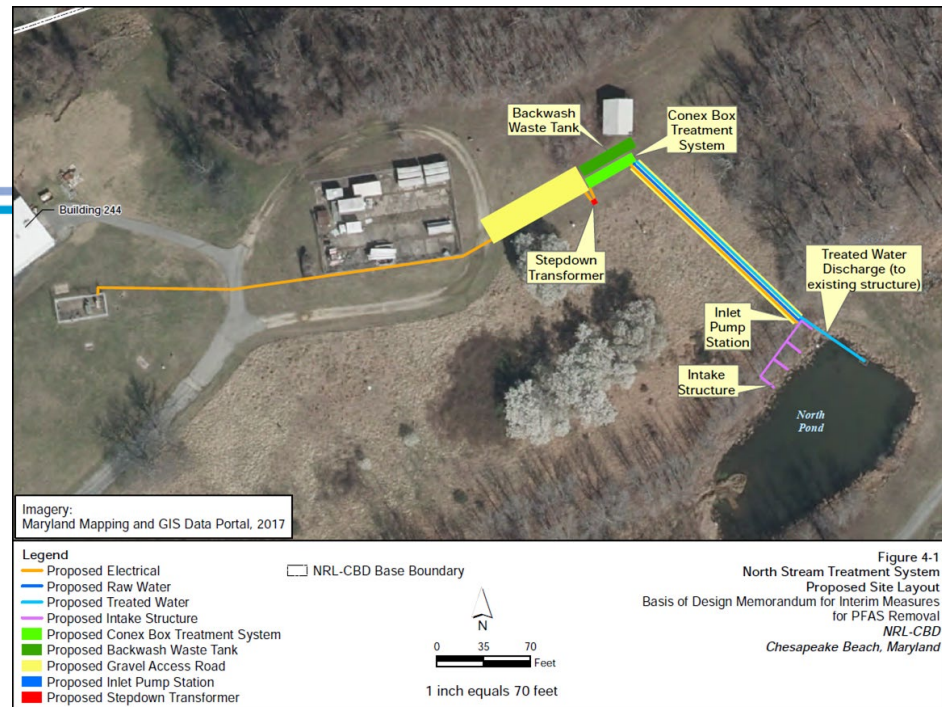
# Site 12 RI SAP

- Objectives
  - Define nature and extent of PFAS in soil, groundwater, surface water, and sediment
  - Evaluate fate and transport of PFAS in environmental media
  - Evaluate risks to human health and the environment
- Tentative Schedule
  - Draft SAP for MDE review summer 2024
  - Final SAP anticipated fall 2024



# Interim Measures

- 100% Basis of Design and Permitting
  - Completing final design and permitting
- Action Memorandum
  - Public comment period anticipated summer 2024
- Treatment Unit Construction
  - Conex treatment units constructed, initial start up testing in-progress



# Questions and Comments

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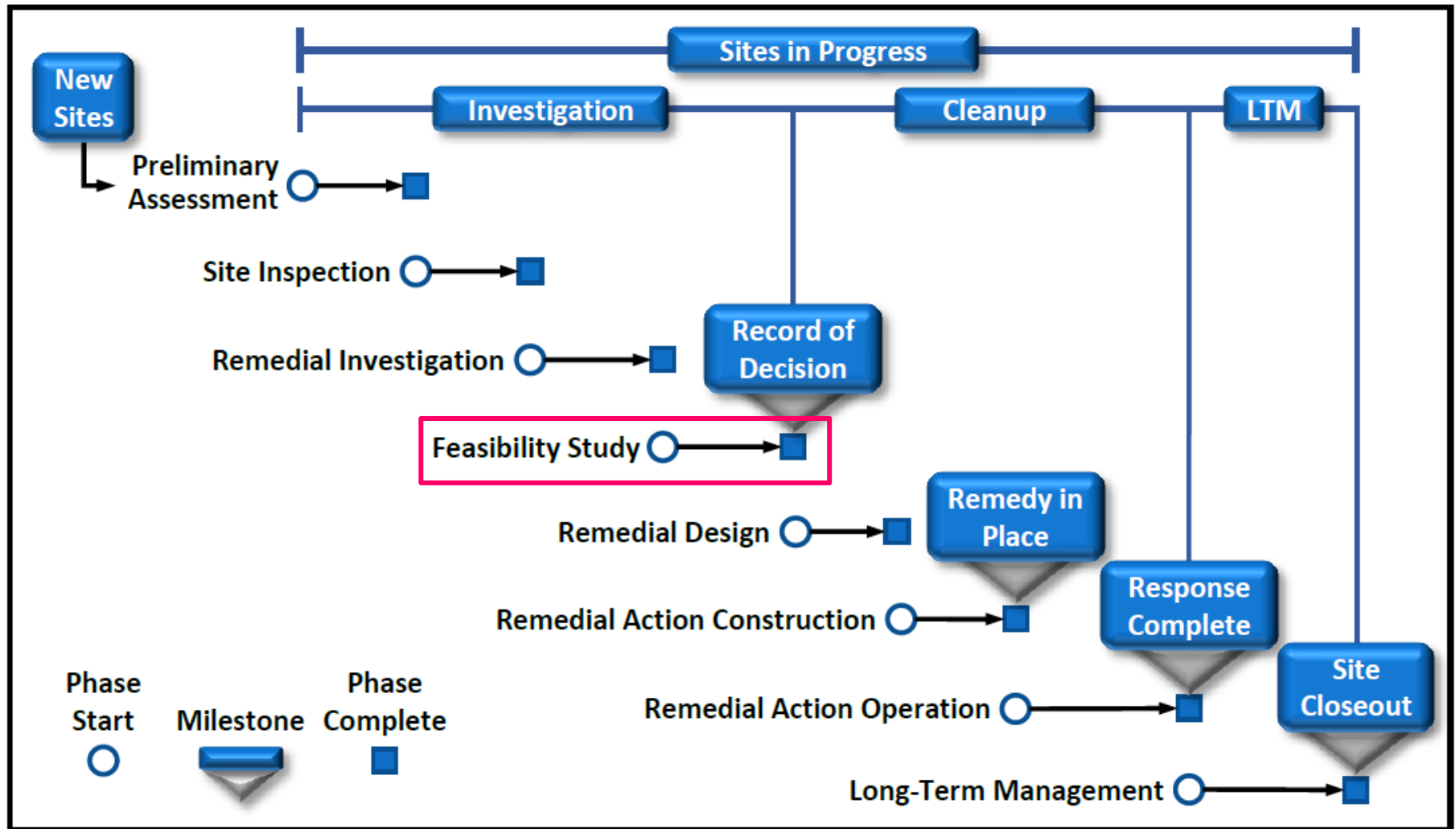


- Open to RAB Members for discussion of “PFAS Site Updates” presentation
- Questions from the public should be held to the end of the meeting

# **UXO-001 Hypervelocity Low Pressure Gun (HVG) Site Proposed Remedial Action Plan**

**Ryan Mayer – NAVFAC Washington**

# Overview of the CERCLA Process



# UXO-001 Site Background and Risk

- Site of the former hyper-velocity gun (HVG) testing facility
- Studied impact of high-velocity projectiles on various target materials from 1967 to 1995
- HVG and all support structures removed from site
- Detections of lead in surface soil exceeded the MDE residential soil screening level
- Deteriorating paint chips with known elevated lead levels from the former HVG and support structures are present in surface soil and could serve as continuing source of lead in surface soil



# Previous Site Investigations



- 2006 Preliminary Assessment
- 2010 Site Inspection
  - Surface soil, subsurface soil, and groundwater samples
- 2016 Remedial Investigation
  - Surface soil, subsurface soil, groundwater, and sediment sampling to develop human health and ecological risk assessments
- 2016 Follow-on Sampling
  - Surface and subsurface soil sampling to confirm and delineate potential lead “hot spot”
- 2022 Additional Delineation Sampling
  - Surface and subsurface soil sampling to delineate extent of lead in soil

# Remedial Action Objectives

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- Prevent hypothetical current and future residents, construction workers, and industrial workers from exposure to lead in surface soil above the MDE residential screening level of 200 mg/kg
- Prevent the ongoing release of lead, and/or the increase in lead concentrations in surface soil potentially resulting from the presence of residual lead paint chips



# Remedial Action Alternatives

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- Alternative 1 – No Action. This alternative is required by NCP as a baseline. Alternative 1 involves no planned actions for soil.
- Alternative 2 – Land Use Controls. This alternative consists of implementing administrative controls to prevent residential development of the site and providing construction worker notifications prior to any intrusive activities at the site.
- Alternative 3 – Excavation and Off-Site Disposal. This alternative involves excavation of soil containing lead-based paint chips at or above the screening criterion, and offsite disposal of the soil as nonhazardous waste.

# Proposed Remedial Alternative

- The Navy proposes to implement Alternative 3 – Excavation and Off-Site Disposal as the preferred alternative.
- Under this alternative, approximately 94 cubic yards of lead-contaminated surface soil within an area of 5,072 square feet (0.12 acres) will be excavated from UXO-001.
- Excavated soils will be transported offsite for disposal at a CERCLA-approved facility and the excavated areas will be backfilled with clean fill to existing grade.
- The Navy may modify the preferred alternative or select another if public comments or additional data indicate that another alternative will yield more appropriate results.



# Questions and Comments

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- Open to RAB Members for discussion of “Proposed Remedial Action Plan” presentation
- Questions from the public should be held to the end of the meeting



**Maryland**  
Department of  
the Environment

# **PFAS Regulatory Updates and Navy Policy Updates**

**Peggy Williams – Maryland Dept. of the Environment (MDE)**

**Ryan Mayer – NAVFAC Washington**

# MDE Comprehensive Monitoring and Sampling Program

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- Maryland has elevated levels of PFAS in certain fish, but not all species, and not everywhere in the Chesapeake Bay and tributaries
- One compound, PFOS, was identified at greater concentrations and a higher frequency than others
- Crab and oyster PFAS concentrations were below consumption screening criteria; therefore, no advisories are warranted
- Of all the meal recommendations we have in Maryland, PFOS now makes up 16%
- There are no advisory recommendations for other PFAS at this time

Info from “MDE Issues New Fish Consumption Advisory and Guidelines (Dec 2023)” <https://www.youtube.com/watch?v=h3RWsN7IYAg>

# PFAS in the 2024 Legislative Session

- Environment – Water Pollution Control – Protecting State Waters From PFAS Pollution (Protecting State Waters From PFAS Pollution Act)  
<https://mgaleg.maryland.gov/2024RS/bills/hb/hb1153T.pdf> (cross-filed with SB0956)
  - MDE, in collaboration with POTWs and Significant Industrial Users are to develop certain PFAS action levels and mitigation plans, devise reporting requirements, etc.
  - “Significant Industrial User” does not include the Federal, State and local governments
- Pesticides - PFAS Chemicals – Prohibitions  
<https://mgaleg.maryland.gov/2024RS/bills/hb/hb1190f.pdf>
  - Prohibition on the sale of PFAS chemical-containing pesticides, bans use after Dec. 31, 2025
- Environment - Playground Surfacing Materials – Prohibitions  
<https://mgaleg.maryland.gov/2024RS/bills/hb/hb1147T.pdf>
  - Affects installing, supplying, selling, soliciting, or offering for sale PFAS chemical-coated playground surfacing material

# Latest EPA Progress Report (Dec 2023)

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- EPA has proposed listing of PFOA and PFOS as hazardous substances, tentatively scheduled for issuing of final rule in early 2024
- EPA has proposed drinking water regulation for 6 PFAS, to finalize the rule in early 2024
- Nationwide monitoring for 29 PFAS at more than 10,000 public water systems, results posted publicly each quarter on their website
- Providing \$10 billion to remove PFAS and other emerging contaminants. In 2023, nearly \$1 billion distributed through the Bipartisan Infrastructure Law's State Revolving Fund Emerging Contaminants programs

# Navy Policy Updates

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- Navy guidance to use the USEPA analytical Method 1633 reporting 40 PFAS in environmental media
  - For use in soil, groundwater, sediment, and surface water
- DoD approved USEPA human health screening levels are available for 8 compounds (November 2023 regional screening level [RSL] update)
  - PFOA, PFOS, PFBS, PFHxS, PFNA, PFHxA, PFBA, and HFPO-DA
  - Updated screening levels
  - EPA releases RSL table updates generally in May and November
- Navy approved ecological screening values available based on literature review and current state of science



# Questions and Comments

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**Questions from  
RAB and Public  
Participants**

# Future Meeting Planning

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- Per the charter, plan to meet 2 times per year
  - Navy proposes the next meeting for October 23, 2024
  - Wednesday evenings, 5:00-7:00 p.m.
- RAB agenda topics
  - If there are topics you'd like us to discuss, please communicate them to the RAB Co-Chairs:
    - Navy Co-Chair – Ryan Mayer: [ryan.e.mayer.civ@us.navy.mil](mailto:ryan.e.mayer.civ@us.navy.mil)
    - Community Co-Chair – David Harris: [davidharris2nd@gmail.com](mailto:davidharris2nd@gmail.com)

# Websites for More Information

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- **About RABs, including the RAB Rule Handbook:**

<http://www.denix.osd.mil/rab/home/>

- **About the Navy's Environmental Restoration Program:**

<http://www.navfac.navy.mil/go/erb/>

- **About the Environmental Restoration Program at NRL-CBD:**

<https://go.usa.gov/xSeKn> (note: case-sensitive)

- **More about PFAS**

<https://www.acq.osd.mil/eie/eer/ecc/pfas/pfas101/rsl.html>

[https://www.navfac.navy.mil/products\\_and\\_services/ev/products\\_and\\_services/env\\_restoration/pfas\\_reading\\_room.html](https://www.navfac.navy.mil/products_and_services/ev/products_and_services/env_restoration/pfas_reading_room.html)

<https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx>

[www.epa.gov/pfas](http://www.epa.gov/pfas)

<https://www.atsdr.cdc.gov/pfas/index.html>