Restoration Advisory Board Meeting
Naval Weapons Industrial Reserve Plant (NWIRP), Calverton
Wednesday April 19, 2023

The fifty-seventh (57th) meeting of the Restoration Advisory Board (RAB) was held in person at the Manorville Fire Department in Manorville, New York and as an online virtual meeting via the Microsoft Teams application. Panelists for this meeting included representatives from the Navy (Addison Phoenix, Melissa Forest, Sharon Baumann, and David Todd), New York State Department of Environmental Conservation (NYSDEC) (Lynn Winterberger, Henry Wilkie, and Cecia Becknell), New York State Department of Health (NYSDOH) (Charlotte Bethoney), Suffolk County Department of Health Services (SCDHS) (Andrew Rapiejko and Jonathan Wanlass), Suffolk County Department of Environment & Energy (Amy Juchatz), New York State Assembly Woman (Jodi Giglio), RAB Community Members (Adrienne Esposito, Amanda Lauth, Catherine Karl, Kelly McClinchy, Sid Bail (representing Stephen Shaprio), and Vincent Racaniello [RAB Community Co-Chair]), The Management Edge (Nancy Rouse), Tetra Tech (Corey Rich, Lauren Donston, Carolyn Hunter, and David Brayack), Resolution Consultants (Rob Forstner and Christine Garbarino) and 32 other residents, interested parties and members of the community. The list of meeting attendees is included as Attachment 1.

WELCOME AND AGENDA REVIEW

Ms. Nancy Rouse opened the meeting at approximately 6:15 pm. Ms. Carolyn Hunter reviewed virtual meeting instructions and Ms. Rouse followed up with the instructions for the in- person meeting. Ms. Addison Phoenix welcomed everyone to the RAB meeting and reviewed the agenda and introduced the panelists and the RAB Co-Chair, Mr. Vincent Racaniello. Mr. Racaniello thanked everyone for coming to the meeting and provided a community update. As part of this community update, Mr. Racaniello thanked the Navy for following up on questions and concerns brough up at the last RAB meeting and relayed that the community is happy to see that the Navy is using new lower standards for Per- and Polyfluoroalkyl Substances (PFAS) investigations. He also noted that funding had been received and the Suffolk County Water Authority would begin hooking up many concerned residents to public water supplies starting this summer. In accordance with the RAB charter, Ms. Phoenix then called for nominations for the next RAB Community Co-Chair. Nominations were brought forth for Kelly McClinchy and Mr. Racaniello. Voting for the next Community Co-Chair will be conducted at the next RAB meeting.

INTRODUCTION TO PFAS AND THE CERCLA PROCESS

Ms. Phoenix provided a presentation that included a PFAS investigation summary, available criteria, and Department of Defense (DoD) policy for PFAS investigations. RAB members were allotted 10 minutes after these presentations for questions. Copies of the presentation are provided in Attachment 2. A summary of the discussions, questions, and answers on this topic are provided below.

Ms. Adrienne Esposito inquired about the Navy's continued use of 70 parts per trillion (ppt) until the Feasibility Study (FS) portion of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. Ms. Phoenix clarified that 70 ppt is only used for private drinking water wells, which is a separate investigation than the Site Inspection (SI) which evaluates the source areas from former NWIRP operations. Ms. Esposito asked why the Navy is using 4 ppt for PFOA and 6 ppt for PFOS when the EPA proposed drinking water Maximum Contaminant Levels (MCLs) of 4 ppt for both. Ms. Phoenix responded that the EPA levels are still draft and can still change. She indicated that 6 ppt for PFOS comes from the EPA Regional Screening Levels (RSLs) tables, and we are using these for our site investigations.

Ms. Esposito asked if MCL process with EPA concludes and they come out with an MCL by the fall, how this will impact the investigations to date. She noted that using lower screening levels in the first place would eliminate some of that concern of having to restart investigations. Ms. Phoenix responded that since the EPA MCLs are still draft, the DoD is still developing a policy for how they will be applied once the regulations are finalized. DoD respects public comment period and process on this proposed rule and looks forward to the clarity that that final nationwide standard will provide.

Ms. Kelly McClinchy requested confirmation that if the Navy collects samples, and the results are greater than 6 ppt for PFOA or 4 ppt for PFOS that then the Navy deems there might be a concern in that area. Ms. Phoenix responded that when results for a site exceed those RSLs further evaluation is conducted to determine the path forward which includes evaluating the risk, looking at the data for trends or possible outliers, etc. She noted that professional judgment comes into play during these evaluations and that risk evaluations are complicated. There will be a specific risk assessment training held in August to help the community better understand this process. Additionally, she referenced the PFAS fact sheet that provides diagrams of these decision-making processes.

Ms. Esposito restated for the record that using 70 ppt for drinking water is dangerous, and that there is science to back this up. NYSDOH has MCLs of 10 ng/L for PFOA, PFOS, and are looking at many other PFAS. Every factor available looks to driving this number down dramatically. She noted that community hopes that the Navy would consider that as part of this process.

Ms. McClincy inquired about the limit for the Navy to reanalyze the data. She noted concern that these lower levels are used in groundwater at the site source areas where there are no private wells, but that the Navy uses the higher 70 ppt for private wells sampling, where people are drinking the water. When you look at groundwater in areas that people aren't drinking, to much lower levels. Ms. Phoenix replied that when a site has results above the RSLs, further evaluation is conducted including looking into potential downgradient receptors and evaluating risks, particularly during the next step which is the Remedial Investigation (RI). The Navy is not walking away from those sites. She noted that she understands that 70 ppt is considered high by the community, but DoD is still currently using 70 ppt for the immediate future.

Mr. Vincent Racaniello inquired about the state DEC/DOH, and county's positions on private wells with results above the state MCLs. Ms. Lynn Winterberger responded that the process at this point in time is that this information goes to DOH, they in turn send it to DEC which opens a case file on it and contacts the homeowner to get bottled water provided or a point of entry system. Ms. Charlotte Bethoney confirmed that anyone with results over 10 ppt would get that type of treatment system.

Mr. Andrew Rapiejko requested clarification on what it means that the Navy is using 70 ppt, if the Navy sampled someone's private well and their results were 25 ppt what would the Navy do about it. Ms. Phoenix referenced the PFAS fact sheet which has the flowchart showing the process for decision making in regard to private drinking water wells. She reiterated that the Navy currently does not take action for results under 70 ppt. Mr. Rapiejko expressed surprise by that and concern that the Navy is not considering local and state regulations at all. He noted that when Suffolk County samples a well, and the results are above 10 ng/L, we send a letter recommending that the residents do not drink the water and then the process goes through DEC and DOH. At other state superfund sites that is how it is working. He expressed concern to hear a responsible party indicate that they are not going to consider state standards for drinking water. Suffolk County applies MCLs not only to public water supplies, but also to private wells because to us there is no difference. Ms. Phoenix responded that while the state standards are not considered in the current (SI and RI) stage of the investigation they do come into consideration at the the FS stage of the CERCLA process as Applicable or Relevant and Appropriate Requirements (ARARs).

> [Additional Detail: More information about ARARs can be found at the EPA's website: https://www.epa.gov/superfund/applicable-or-relevant-and-appropriate-requirements-arars]

Mr. Rapiejko further inquired about what the surface water project screening levels were designed to protect, is that just toxicity to fish or does it protect human health consumption from eating fish? Ms. Phoenix indicated that the surface water Project Screening Levels (PSLs) were calculated using USEPA's Regional Screening Level Calculator Recreator Surface Water Modules with site-specific assumptions for

activities resulting in potential surface water exposures. Swimming activities are assumed for screening SI surface water data because it is conservatively assumed swimming, and therefore dermal contact with and potential ingestion of surface water, could occur in the Northeast Pond and the Peconic River. These PSL values did not include assumptions for the toxicity or consumption of fish or wildlife.

> [Additional Detail: Toxicity and hypothetical consumption of fish or wildlife may be evaluated in the human health risk assessment during the Remedial Investigation phase.]

Ms. Esposito inquired about the method detection limits for the drinking water sampling. Ms. Phoenix indicated that the drinking water sampling began in 2016 and continued into 2020 and that the analytical methods have changed as more information has become available. A summary of the analytical detection limits for drinking water samples is presented in Attachment 3.

A resident expressed frustration that they are limited to questions only at the end of all the presentations. He inquired about how the Navy identified what locations to sample for private drinking water wells. He expressed concern that the Navy did not look everywhere. Ms. Phoenix responded that the team of contractors and the Navy reviewed all the data available regarding groundwater flow direction, and potential locations of private wells within 1 mile downgradient from the identified potential PFAS source areas were considered for sampling. During the planning of this sampling, significant communication efforts were made to ensure that any private drinking water well within the designated area had the opportunity to be sampled.

REAL ESTATE ACCESS AND SITE 6A FENCELINE TREATMENT SYSTEM

Ms. Phoenix provided a presentation discussing follow up information of questions from the previous RAB including real estate access issues and the presence of PFAS at the Site 6A Fenceline Treatment System. RAB members were allotted 10 minutes after these presentations for questions. A copy of this presentation is provided in Attachment 2. The summary of discussion, questions, and answers on this topic are provided below.

Mr. Racaniello asked if the Navy will be sampling downgradient from in the infiltration galleries of the Fenceline Treatment System (FLTS). Ms. Phoenix responded that the Navy will be utilizing the existing monitoring well network which is downgradient of AOCs-01, -02, -03. Additionally, select wells in this area were sampled in 2017 and 2018 and that data has been incorporated into the evaluation of AOCs-01, -02, and -03. Mr. Racaniello asked if the Navy could get a sample from the extraction wells, which he was concerned could be a potential source since PFAS were in water being pumped through those wells. Ms. Phoenix indicated that this may be considered as part of further investigations in this area, which is moving forward to the RI phase. She noted that this would not be a source of PFAS because the water was simply picked up and put back down without PFAS treatment, but that any PFAS here is attributable to upgradient AOCs-01, -02, and -03.

Ms. Catherine Karl inquired about the results of the conversations with the property owner at AOC-06 regarding continued investigation. Ms. Phoenix indicated that it was a productive conversation, and that the Navy has sufficient rights to access the property to continue sampling and the property owner is amenable to this access. Ms. Karl asked when this work would be completed, and Ms. Phoenix stated that it is planned for this summer.

Ms. Karl expressed concern that the Navy plans to continue sampling until the end of the plume is reached, but that the plumes have reached homes, so to stop testing would be inappropriate. Ms. Phoenix noted that private wells identified downgradient of these plumes had already been sampled during 2018 and 2019. She notes that concentrations emanating from the suspected source areas would be expected to be the highest within 1 mile downgradient, and that is the area where homes were

sampled and all results were below the current DoD standard of 70 ppt. The community expressed concern over this use of 70 ppt, and the age of the sampling data, as results may have changed in 5 years.

Ms. Esposito inquired about data at the fence line, and if it would test down to low levels. Ms. Phoenix indicated that the current detection limits are around 2 ppt but that methods have changed. A summary of the analytical detection limits for groundwater samples is provided in Attachment 3.

FIRST PUBLIC QUESTION AND ANSWER PERIOD

Discussions were held about the format of the RAB meetings, particularly the public question and answer period. Ms. Phoenix indicated that the format of these meetings will be re-evaluated in the future. The public was then allowed approximately 10 minutes to ask questions regarding the first two presentations. A summary of this first public question period is provided below.

Mr. Andrew Levin referenced PFAS fact sheet, and the discussion of the wells sampled, he inquired if the results of this sampling could also be discussed so that the community can understand the magnitude of results in their areas. Ms. Phoenix replied that the Navy cannot provide the public with results for specific properties because that is private data to the homeowner, but that results for different neighborhoods have been summarized on maps on the public website and at previous meetings. She indicated that the maximum concentration from the 2018 to 2019 was 11.2 ppt and that when this well was resampled it was below 11.2 ppt.

Ms. Clare Bennet, a resident on Oakwood Drive in Manorville, noted that the results of her last sampling that DEC conducted, included PFOS at 27 ppt and PFOA at 8.8 ppt. She indicated understanding that where she lives, according to previous presentations she is not considered downgradient but requested that the sampling area be expanded beyond the “golden fence” to help determine why she has PFAS in her private well. Ms. Phoenix referenced the map on back of the PFAS fact sheet, which shows drinking water sampling in reference to the source areas and the direction of groundwater flow. The Navy’s current policy does not allow for sampling outside of 1 mile downgradient of identified source area. She indicated that since Ms. Bennet is not downgradient of PFAS source areas at NWIRP Calverton that the PFAS in her well is not coming from a Navy source. She continued to clarify that the Navy does not see the former Calverton property line as a boundary for investigations and that the Navy looks at the source area and downgradient. Ms. Bennett indicated that she is concerned about groundwater flow direction, that it may not always be the same, and referenced rainstorm that caused flooding near her house. She requested that further investigation be done to evaluate groundwater flow in the area.

Ms. Catherine Kent indicated her frustration with the Navy’s use of older guidelines when it comes to screening drinking water for public health. She then asked for clarification on the status of the Navy’s testing in the industrial core of the facility, particularly the 1,643 acres that the town is trying to sell. Ms. Phoenix clarified that we have done some sampling in this area, and there was a previous concern that the Navy’s access would be hindered during property transfer, but that after reviewing the deeds from the real estate transactions the Navy will be able to retain access for environmental investigations during any future transfers.

Ms. Amy Juchatz inquired about the number of private well results that were below 70 ppt but above 4 ppt which is the proposed MCL. Ms. Phoenix replied that the Navy has sampled a total of 14 private wells downgradient of PFAS of potential PFAS areas of concern in 2018 and 2019. Additionally, one private well was sampled for PFAS downgradient of Site 2 (a known PFAS release area) in 2016 and second private well was sampled downgradient of Site 2 in 2020. All results for PFOA and PFOS have been below 70 ppt and that the highest concentration observed was 11.2 ppt.

[Additional detail: The following is a summary of historic private drinking wells sampling efforts:

- PFOA exceeded 4 ppt in 6 wells (max.11.2 ppt);
    - All wells were resampled the following year and PFOA exceeded 4 ppt at three locations (max. 7.14 ppt).
- PFOS exceeded 4 ppt in one well (max. 5.63 ppt)
    - All wells were resampled the following year and PFOS did not exceed 4 ppt.]

Mr. Nick Constandy stated that he and his family currently live off of River Road along the Peconic River, downgradient within 1 mile from the property and that they are concerned about their private well being contaminated. He requested to have his well sampled by the Navy. Ms. Phoenix followed up with Mr. Constandy after the RAB meeting to make sure that the concern was addressed appropriately.

Ms. Jodi Giglio noted that the DOH indicated that investigative report was supposed to be completed by the fall and asked for confirmation. Ms. Phoenix responded that the Navy's Draft Site Inspection report was going to the regulators for their review and comment the week following the RAB. Ms. Giglio asked when the public would be able to see the report and the process for getting it finalized. Ms. Phoenix responded that the public would have access to this report when it is finalized; estimated in September. She continued that final reports can be accessed on the public website via the administrative record or in hard copy form at the Riverhead Public Library. Ms. Giglio asked specifically when the public could get involved in this process. Ms. Phoenix noted that in accordance with the CERCLA process the Navy provides public comment periods in the Feasibility Study and Record of Decision stages. Ms. Giglio requested that a public hearing be conducted on the results of the SI for the record because she fears that the publics opinions often get ignored until it is too late. The results of the SI have been the subject of the December 2022 and April 2023 RABs which have included public comment. These results will continue to be discussed in public format in future RABs.

PFAS INVESTIGATION UPDATE

Mr. Corey Rich provided a presentation summarizing the results of the Facility Wide PFAS Investigations, the recommendations for further investigation, and the anticipated timelines for those investigations. RAB members and the community were given the opportunity after this presentation for questions. A copy of this presentation is provided in Attachment 2. The summary of discussion, questions, and answers on this topic are provided below.

Mr. Rapiejko asked if the Navy is going to resample private wells located downgradient of AOC-11 which is moving forward to an RI. Ms. Phoenix responded that since results were not above 70 ppt during the initial private well sampling in 2018 and 2019, resampling of private wells is not planned at this time. Mr. Rapiejko noted that those sampling events were several years ago, and that we see these concentrations do change. He then asked if when the EPA does finalize the MCLs, what action would the Navy take then with respect to private wells that have been identified downgradient of the source areas. Ms. Phoenix responded that the DoD is still evaluating the next steps for this situation. Mr. Rapiejko also noted the groundwater divide and the complexities and changes in groundwater flow direction throughout the facility. He expressed concern about multiple years of evaluation and showing differences between data from 1997 [USGS data] and Navy potentiometric surface maps from 2021. He requested that the Navy use potentiometric surface maps to show the seasonal variability.

Separately, Mr. Rapiejko asked if there would be 7 separate RODs and public comment periods for each site that is moving forward to the RI stage? Ms. Phoenix responded yes, this is done in accordance with CERCLA process.

Mr. Craig Dahlgren asked if potential development at the former Grumman facility would release more PFAS to the environment. Mr. Rich responded that there is a potential for this to occur, as PFAS are commonly found in a variety of products. Ms. Phoenix continued that the Navy would not be able to

dictate those operations. Mr. Dahlgren asked if disruptive activities, excavations etc, would change the flow of runoff or redirect PFAS and Ms. Phoenix replied that part of the Record of Decision also establishes the remedial objectives and goals, which can include Land Use Controls (LUCs). LUCs typically limit those types of activities if contamination is present. This would be dependent on the risk, which will be discussed further during the upcoming risk assessment training that is planned for August. Mr. Dahlgren stated that the Town of Riverhead is looking to develop this area and asked if the Navy was aware of upcoming developments. Ms. Phoenix indicated that the Navy would circle back with the TOR to consider addressing potential exposures to construction workers, etc. and disruptions.

> [Additional detail: Ms. Phoenix met with Town of Riverhead representatives the following day (April 20, 2023) to discuss activities at current and former Navy property.]

Mr. Dahlgren expressed concern that the Navy is running the show, and not using New York State levels especially as it seems that these conditions are getting worse over time as we learn more and investigate more. He noted that he has heard that on South River Road, a few miles from NWIRP Calverton, that residents are now detecting PFAS in their wells. In addition, his neighborhood has been impacted, but not at levels concerned by the Navy at this time, which he finds unacceptable. He requested action by the Navy to address some of these concerns or the community.

Ms. Kelly McClinchy noted that we have heard from numerous people tonight regarding the River Road section to the east of the former Navy site. Those homes need to be retested. When they were tested in 2018-2019 the NYSDOH MCLs were not in effect. Those residents deserve to know, whether the Navy is going to do anything or not, what is in their wells.

> [Additional Detail: The homes that were sampled in the River Road community were below the DoD action limit of 70 ppt. The maximum concentration was 11.2 ppt which was resampled the following year for a result of 2.15 ppt.]

Mr. Ray Krieger expressed concerns about contamination in his neighborhood and potential risks to cancer cases. He inquired why nobody had done a health assessment in this area. He noted that all of these people live southwest of the facility, not northeast, not southeast, but to the southwest. He asked how clay barriers may affect the flow of water and noted that the water table fluctuates significantly in this area. He requested a health assessment, by either the county, the state or the Navy as part of the risk assessments. Ms. Phoenix responded that as part of the risk assessment, there is a human health component. Those will happen specifically as related to Navy source areas, which may not affect the neighborhood in question. She stated that Navy can do a deeper discussion of groundwater flow and fluctuations in future RABs. Ms. Charlotte Bethoney, NYSDOH, requested Mr. Krieger's contact information and noted that she will bring the request back to the agency.

> [Additional Detail: NYSDOH in cooperation with the Agency for Toxic Substances and Disease registry (ATSDR) conduct Health Assessments. Ms. Addison Phoenix provided Mr. Ray Krieger's contact information to NYSDOH (Ms. Charlotte Bethoney & Mr. Shaun Surani) and provided Mr. Ray Krieger with NYSDOH contact information on May 3, 2023.]

VOLATILE ORGANIC COMPOUND MONITORING UPDATE

Ms. Lauren Donston provided a presentation summarizing the results of the latest rounds of Volatile Organic Compound (VOC) monitoring at various sites throughout the facility. RAB members and the community were given the opportunity after this presentation for questions. A copy of this presentation is provided in Attachment 2. The summary of discussion, questions, and answers on this topic are provided below.

A resident or community member asked how the lines were drawn to define the boundaries of the plumes in 2012, particularly toward the leading edge and why it did not go all the way to the Peconic River. Ms. Donston replied that it was based on the results from the wells in 2012. The lines where the boundary are can be interpreted by looking at where the results are greater or less than the 5 ug/L MCL for Trichloroethene (TCE) which was used to draw the boundary line. Mr. Brayack added that the boundaries were determined based on multiple investigations to find where concentrations were above or below the MCL. The line drawn is a mathematical interpretation based on high concentrations in the TCE anomaly area, and that the leading edge is relatively unknown because we do not have data to bound it before it gets to the river. However, based on groundwater flow direction and historical sampling the Navy knows that the contamination goes into the river. The resident asked why the Navy did not sample wells along River Road. Mr. Brayack responded that the Navy, as well as the county did sample these wells during these historic investigations to address potential exposure concerns. The resident asked for the results of those private wells, and Mr. Brayack responded that the Navy does not distribute private homeowner information.

Another resident asked about the VOC plume downgradient of Site 2, that it looked as if the Navy sampled beyond the “golden fence”. Ms. Donston confirmed that groundwater samples were collected downgradient of former NWIRP property during these investigations.

SECOND PUBLIC QUESTION AND ANWER PERIOD

An open question and answer session was held following all the presentations. The summary of discussions, questions, and answers are provided below.

Ms. Denise Civiletti, representing Riverhead Local, asked if the presence of PFAS would affect the ability to undertake construction activities for the upcoming development. She noted that the purchaser is planning to relocate taxiways, construct aprons, park aircrafts and construct very large warehouses for distribution buildings adjacent to the runways. She inquired if they would be able to do this if the areas are within the AOCs continuing to further investigations. Ms. Phoenix replied that she would follow up with the TOR to get more details about the development and what specifically is planned and how environmental investigations could be impacted by this development.

> [Additional detail: Following the meeting, Ms. Kelly McClinchy provided information about a public meeting being held by the developer. A Navy contractor attended the meeting, and they provided Ms. Phoenix with copies of the handouts (from both Calverton Aviation & Technology [CAT] (the developer) and the EPCAL Watch Coalition), and a list of questions that were asked during that meeting. With certain exceptions not relevant here, once property is transferred from the Navy, the Navy plays no role in determining future uses of that property. Regardless of future use or development, the Navy remains committed to fulfilling its responsibilities under the federal cleanup law, and will continue to work quickly and effectively, as feasible, through the CERCLA process.]

At the end of these discussions, Ms. Phoenix then provided closing remarks, invited everyone to attend the risk assessment training planned for August, and thanked everyone for attending the meeting. The meeting was then adjourned.

Attachment 1 - Attendence
NWIRP Calverton RAB Meeting April 19, 2023

Name	Affiliation
Baumann, Sharon	NAVFAC
Forest, Melissa	NAVFAC
Phoenix, Addison	NAVFAC - Project Manager
Todd, David	NAVFAC- Public Affairs Officer
Jodi Giglio	New York State Assembly
Bicknell, Cecia	New York State Department of Environmental Conservation
Wilkie, Henry	New York State Department of Environmental Conservation
Winterberger, Lynn (DEC)	New York State Department of Environmental Conservation
Bethoney, Charlotte M (HEALTH)	New York State Department of Health
Amanda Lauth	RAB Member
Bail, Sid (representing Steve Shapiro)	RAB Member
Esposito, Adrienne	RAB Member
Karl, Catherine	RAB Member
McClinchy, Kelly	RAB Member
Racaniello, Vincent	RAB Member
Krieger, Jane	Resident/ Community
Alp, Peter	Resident/ Community
Baldwin, Hatty	Resident/ Community
Bennet, Clare	Resident/ Community
Chan, Val	Resident/ Community
Cullen, John	Resident/ Community
Dahlgren, Craig	Resident/ Community
Darrell	Resident/ Community
Ferguson, Ryan	Resident/ Community
Kent, Catherine	Resident/ Community
Leven, Andrew	Resident/ Community
Mike Iannelli (Guest)	Resident/ Community
Mourtz, Ronald	Resident/ Community
N Cowand	Resident/ Community
Newcombe, John	Resident/ Community
Nick Constandy	Resident/ Community
Nik Vivier (Guest)	Resident/ Community
Paquette, Doug	Resident/ Community
Pawson, Toni	Resident/ Community
Rt	Resident/ Community
Starke, Catherine	Resident/ Community
Terchun, Toqui	Resident/ Community
Wolf, Ben	Resident/ Community
+1(631)-649-5598	Resident/ Community
+1(631)-886-1014	Resident/ Community
+1(651)-334-9627	Resident/ Community
+1(763)-458-3209	Resident/ Community
Krieger, Ray	Resident/ Community
Forstner, Rob	Resolution Consultants
Garbarino, Christine	Resolution Consultants

Attachment 1 - Attendence
NWIRP Calverton RAB Meeting April 19, 2023

Denise Civeletti	Riverhead LOCAL (Media)
Gannon, Tim	Riverhead News-Review (Media)
Juchatz, Amy	Suffolk County Department of Environment & Energy
Rapiejko, Andrew	Suffolk County Department of Health Services
Wanlass, Jonathan	Suffolk County Department of Health Services
Brayack, Dave	Tetra Tech
Donston, Lauren	Tetra Tech
Hunter, Carolyn	Tetra Tech
Rich, Corey	Tetra Tech
Rouse, Nancy	The Mangement Edge

Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

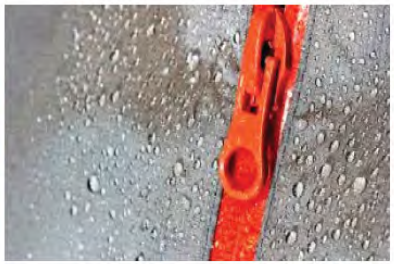
Introduction to PFAS & The CERCLA Process

Presented by:
NAVFAC Mid-Atlantic
19 APRIL 2023

PFAS Background

- What are PFAS?
  - Family of manufactured chemicals that last a long time in the environment.
  - Found in the environment around the world (in air, water, soil, animals, plants, as well as in people).
  - Used since 1950s in many products, such as:


firefighting foam


water-resistant fabrics


stain-resistant carpets

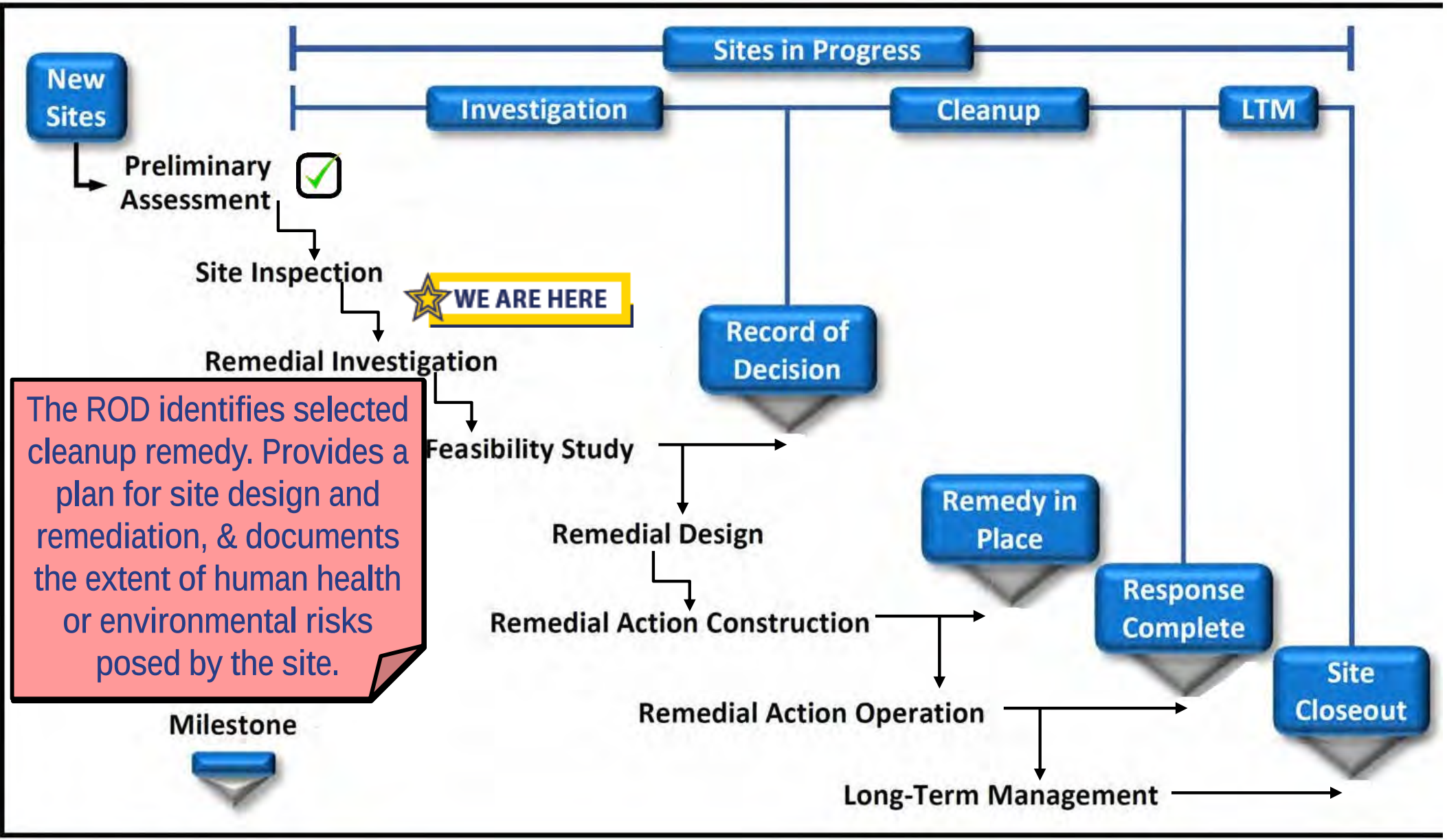

some nonstick cookware


personal care products


food packaging

PFOA and PFOS are the mostly commonly used and most studied in the PFAS family.

CERCLA Process



PFAS Criteria

- PFAS are considered "emerging" and not yet federally regulated contaminants, and investigations are guided by:
  - Health Advisories identify concentration of a contaminant in drinking water at which adverse health effects are not anticipated to occur over a duration (lifetime). Health Advisories are not legally enforceable.
  - Maximum Contaminant Levels (MCLs) are the highest level of a contaminant that is allowed in public water supplies. MCLs are legally enforceable. MCLs are public water supply standards and not groundwater standards, and federal MCLs have been proposed but not finalized.
  - Regional Screening Levels (RSLs) are used to screen site data and evaluate risk.
  - Ambient Water Quality Guidance Values typically apply to groundwater discharges, surface water bodies, and other ambient waters.

Currently Available PFAS Criteria

2016 Health Advisories

- May 2016 - EPA established drinking water lifetime health advisories
  - 70 parts per trillion (ppt) for PFOA & PFOS
  - Value authorized for drinking water investigations by DoD

State MCLs

- October 2020 - New York State established drinking water MCLs
  - 10 nanograms per liter (ng/L) for PFOA & PFOS
  - Not used for characterization and delineation

RSLs

- May 2022 – EPA Regional Screening Levels published
  - Designed to be protective
  - Guide for investigation

2022 Health Advisories

- June 2022 - EPA issued new health advisories for drinking water
  - Interim for PFOA & PFOS
  - Non-regulatory
  - Levels are below detectable limits
  - The DoD is instead looking to EPA to finalize a regulatory drinking water standard

1 ng/L = 1 ppt

March 2023 Proposed EPA Regulations

- EPA announced proposed National Primary Drinking Water Regulation for 6 PFAS on March 14, 2023
  - Proposed regulation consists of Maximum Contaminant Levels (MCLs) for 2 PFAS:
    - PFOA – MCL of 4 parts per trillion (ppt)
    - PFOS – MCL of 4 ppt
    - PFNA, PFHxS, PFBS, and HFPO-DA – evaluated using the Hazard Index
      - Hazard Index is a tool to evaluate risk from chemical mixtures. Considers the combined effect of these chemicals in drinking water.

March 2023 Proposed EPA Regulations

- Proposed regulation does not require any action until finalized

Virtual EPA public hearing: Thursday, May 4th at 11 am EST

- **DoD respects and values the public comment process on this proposed nationwide drinking water rule and looks forward to the clarity that a final regulatory drinking water standard for PFAS will provide.**
- **In anticipation of the final standard that EPA expects to publish by the end of 2023, the Department is assessing what actions DoD can take to be prepared to incorporate EPA's final regulatory standard into our current cleanup process, such as reviewing our existing data and conducting additional sampling where necessary.**
- **In addition, DoD will incorporate nationwide PFAS cleanup guidance, issued by EPA and applicable to all owners and operators under the federal cleanup law, as to when to provide alternate water when PFAS are present.**

New York State Department of Environmental Conservation Ambient Water Quality Guidance Values

NYSDEC Ambient Water Quality Guidance Values are evaluated as Applicable and Relevant and Appropriate Requirements (ARARs) at the Feasibility Study (FS) phase of the CERCLA Process.

- Final Guidance Values for PFOA and PFOS were issued on March 15, 2023 provide complementary protection of ambient waters used as drinking water sources.
- 3 Types: Health (Water Source), Aquatic (Acute), and Aquatic (Chronic)
  - Health guidance values are most stringent and apply whenever discharges occur to waters that are classified as drinking water sources
    - PFOA: 6.7 ppt
    - PFOS: 2.7 ppt
  - Aquatic values apply to surface water bodies (i.e; Peconic River) and are set to protect the best use of fishing through supporting reproduction of aquatic life

USEPA Regional Screening Levels

- USEPA Regional Screening Levels (RSLs):
  - DoD uses the Regional Screening Levels:
    - At the SI phase: to determine if further investigation of PFAS in the Remedial Investigation (RI) phase is warranted or if no further PFAS investigation is required.
    - At the RI phase: to identify the initial list of chemicals of potential concern that will be carried forward to the site-specific baseline risk assessment.

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Risk Assessment

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Regional Screening Levels (RSLs) - Generic Tables

Tables as of: November 2022

For assistance/questions please use the Regional Screening Levels (RSLs) contact us page.

The RSL and RML default values are available in the Apple Store and the Google Play Store for use on mobile devices.

The screening level (SL) tables are available for download in Excel and PDF formats. All tables are presented with target cancer risk (TR) of 1E-06, however, tables are presented with target hazard quotients (THQ) of 1.0 and 0.1. Use the tables appropriate for your region. These tables are considered ready for use. The tables contain both SL calculations and the toxicity values that were used. The download tables do not include the ingestion of fish exposure pathway, the outdoor worker and the indoor worker exposure to soil exposure pathway that are presented in the User's Guide. These exposure pathways can be considered on a site-specific basis in the Calculator.

Regional Screening Levels (RSLs)

- Home Page
- User's Guide
- What's New
- Frequent Questions
- Equations
- RSL Calculator
- Generic Tables
- Contact Us

- If you wish to receive notifications when RSLs are updated, use the Signup Form to learn more.
- For RSL questions please use the RSL Contact Us page.
- For general risk assessment questions, separate from the RSLs, please use the General Risk Assessment Contact page.

Screening Levels	(TR=1E-06 THQ=1.0)	(TR=1E-06 THQ=1.0)	(TR=1E-06 THQ=0.1)	(TR=1E-06 THQ=0.1)
Summary Table	PDF	XLS	PDF	XLS
Resident Soil	PDF	XLS	PDF	XLS
Composite Worker Soil	PDF	XLS	PDF	XLS
Resident Air	PDF	XLS	PDF	XLS
Composite Worker Air	PDF	XLS	PDF	XLS
Resident Tap Water	PDF	XLS	PDF	XLS

PFAS Project Screening Levels at NWIRP Calverton

- Project Screening Levels are based on the EPA Regional Screening Levels.

Chemical	Groundwater (ng/L)	Soil (µg/kg)	Surface Water (ng/L)	Sediment (µg/kg)
HFPO-DA	6	23	210	160
PFBS	600	1,900	21,000	13,000
PFHxS	39	130	1,200	850
PFNA	5.9	19	170	130
PFOS	4	13	140	85
PFOA	6	19	210	130

Calculated with EPA tool.

Common Questions

- Is the Navy still using the 40 ppt as screening value for PFOA and PFOS in groundwater in the Site Inspection?
  - No, the 40 ppt was used temporarily while the Navy awaited the EPA Regional Screening Levels.
  - All data have been evaluated against the more conservative Regional Screening Levels (PFOS 4 ppt & PFOA 6 ppt).
- Why are the Project Screening Levels lower than the 2016 Health Advisories?
  - Screening levels are used to eliminate areas where risks are very low and no further action is needed.

Common Questions

- When do the most recent EPA MCLs come into effect?
  - These are currently in the public comment period and will not be in effect until finalized (expected later this year).
- When will the New York State criteria be used?
  - The New York State MCLs (10 ppt) and Guidance Values come into consideration during the feasibility study phase of the CERCLA process as an applicable or relevant and appropriate requirement when reviewing and designing potential remedial alternatives.

RAB Questions

Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

Real Estate Access

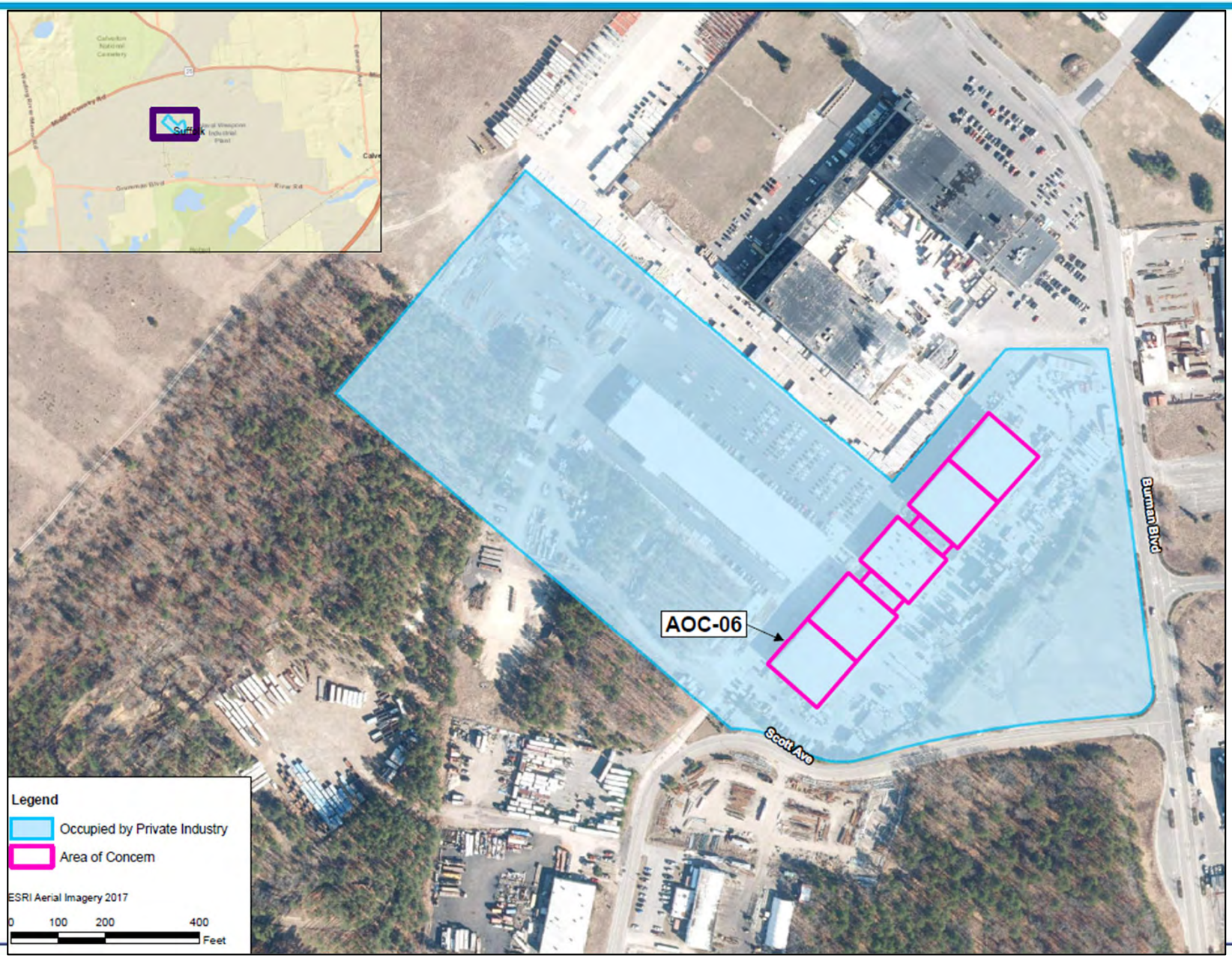
Presented by:
NAVFAC Mid-Atlantic
19 APRIL 2023

Real Estate Access

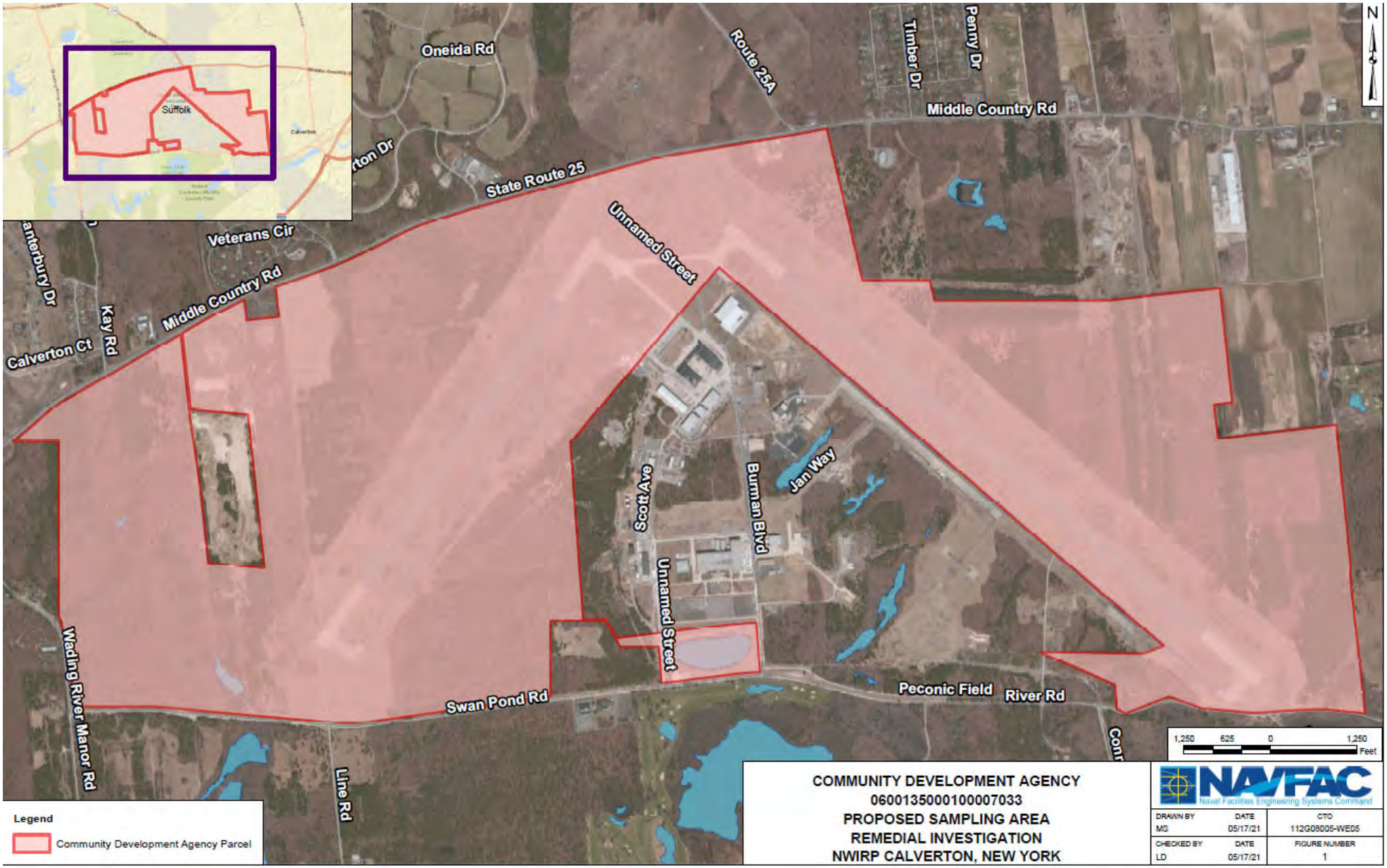
- **PFAS are not currently federally regulated.**
  - As such, it was believed that the access specified in the Deed would only be guaranteed for the investigation of federally regulated hazardous chemicals through the CERCLA process.
  - Navy Real Estate & Counsel reviewed the existing deeds and determined that these were written such that the Navy has retained sufficient rights to access the property for our purposes.
  - Access will be coordinated through official requests and will be done in a manner that reduces interference
    - Currently in draft.
  - This is a revised understanding from what was previously presented.

Navy will be able to continue PFAS investigations on transferred properties, regardless of future ownership.

AOC 06 Real Estate Access



Upcoming Parcel Transfer

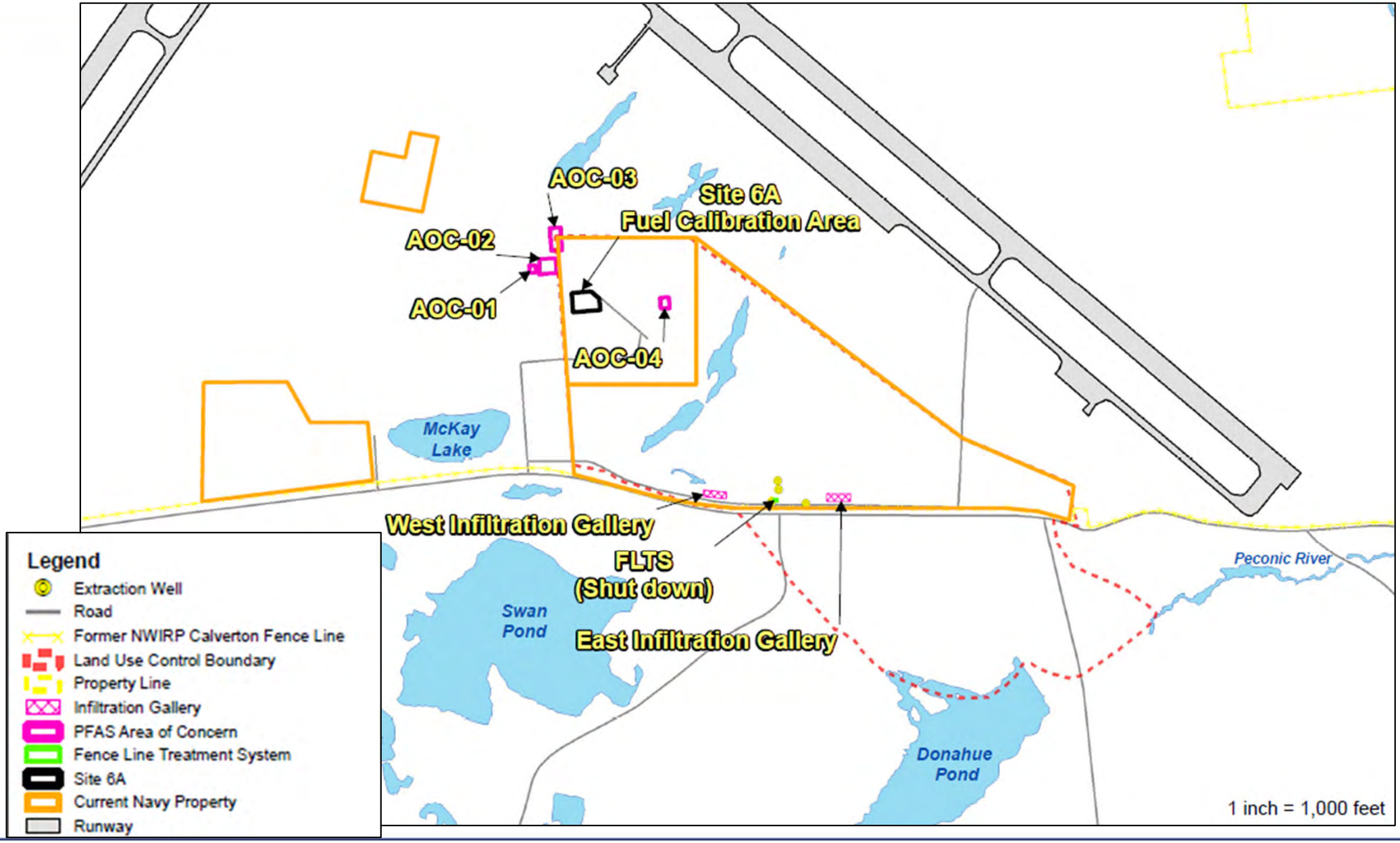


Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

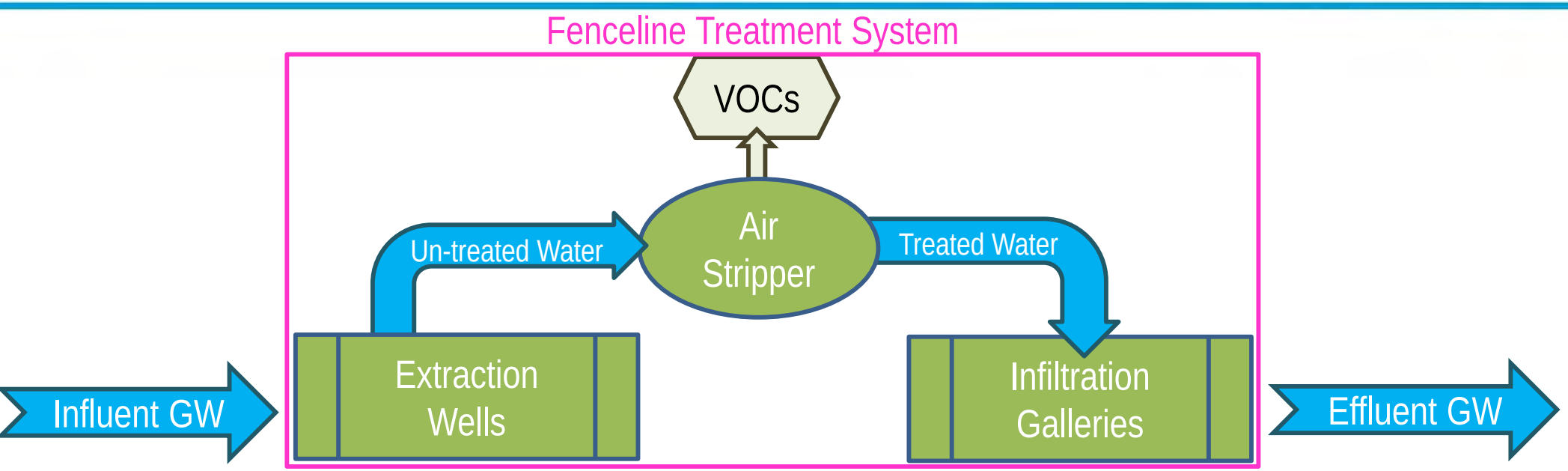
Site 6A Fenceline Treatment System

Presented by:
NAVFAC Mid-Atlantic
19 APRIL 2023

Site Overview

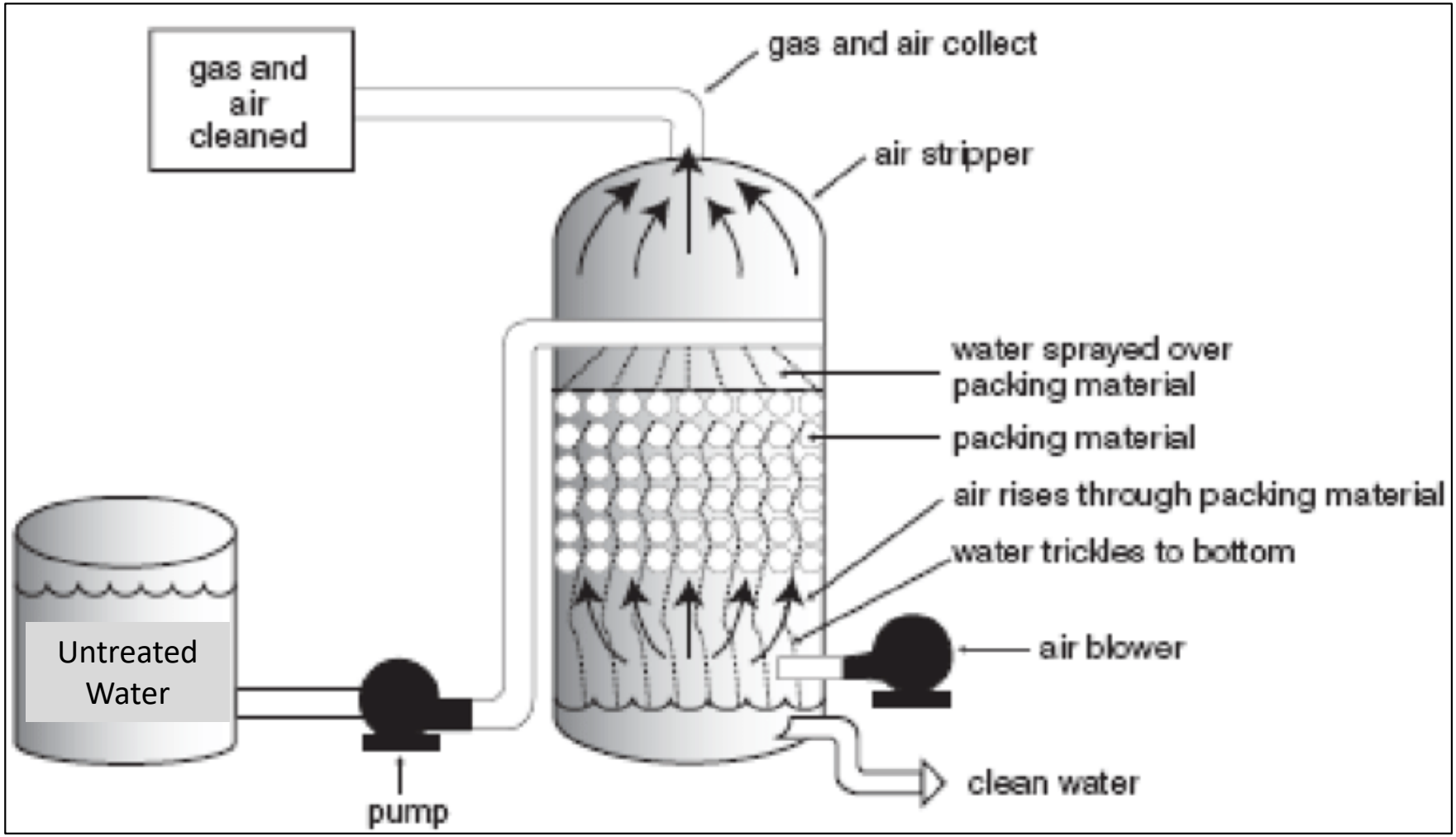


Fenceline Treatment System



- The Fenceline Treatment System was designed to intercept Volatile Organic Compound (VOC)-contaminated groundwater from Site 6A prior to entering the Peconic River.
- System successfully treated to cleanup levels and is currently inactive.
- The extracted groundwater was treated to remove VOCs. The air stripper removed VOCs and vented them to the atmosphere. The VOC emissions were in accordance with NYS regulations.
- Treated groundwater was then reintroduced into the local aquifer at two locations (infiltration galleries to the east and west of the treatment system.
- The treatment system's impact to groundwater flow was very localized and did not impact the area-wide flow of groundwater or groundwater discharge into the Peconic River.

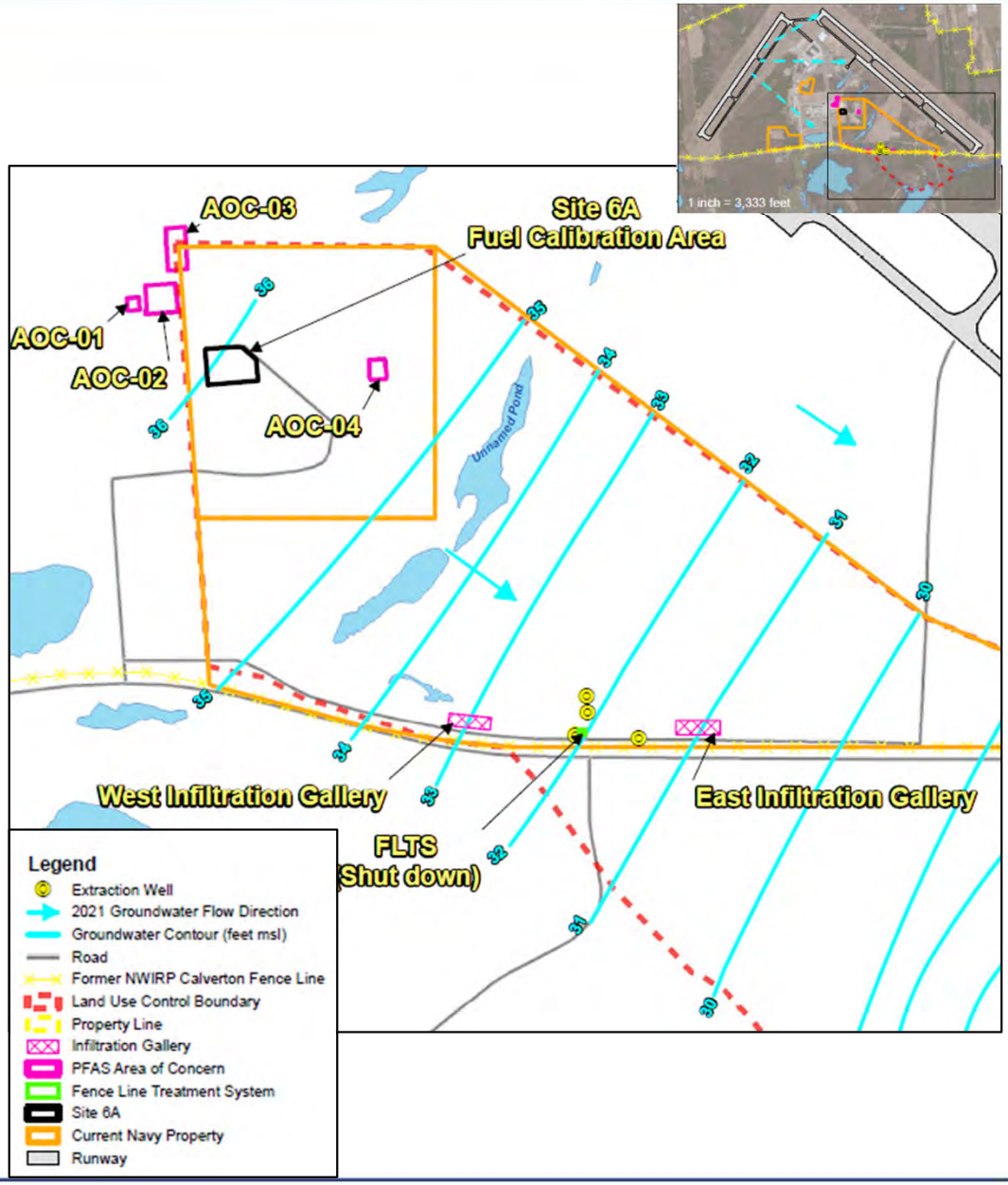
VOC Treatment by Air Stripping



PFAS are not volatile, therefore the air stripper did not affect concentrations. The Fenceline Treatment System did not add, concentrate, or remove PFAS from groundwater.

Common Questions

- Why are there PFAS detected at the fenceline?
  - PFAS migrated to fenceline from upgradient source areas (AOCs- 01, 02, & 03)
- Is the Fenceline Treatment System a PFAS source area?
  - No, PFAS were not handled or introduced at the Fenceline Treatment System Area.
  - PFAS were detected from upgradient sources.
- What is the Navy doing about this?
  - The Navy will conduct an in depth investigation of PFAS releases from AOC 01, 02, & 03 in the Remedial Investigation.
  - Remedial Investigation planning documents are projected to begin in 2025.
  - Remedial Investigation will determine if additional action is required.



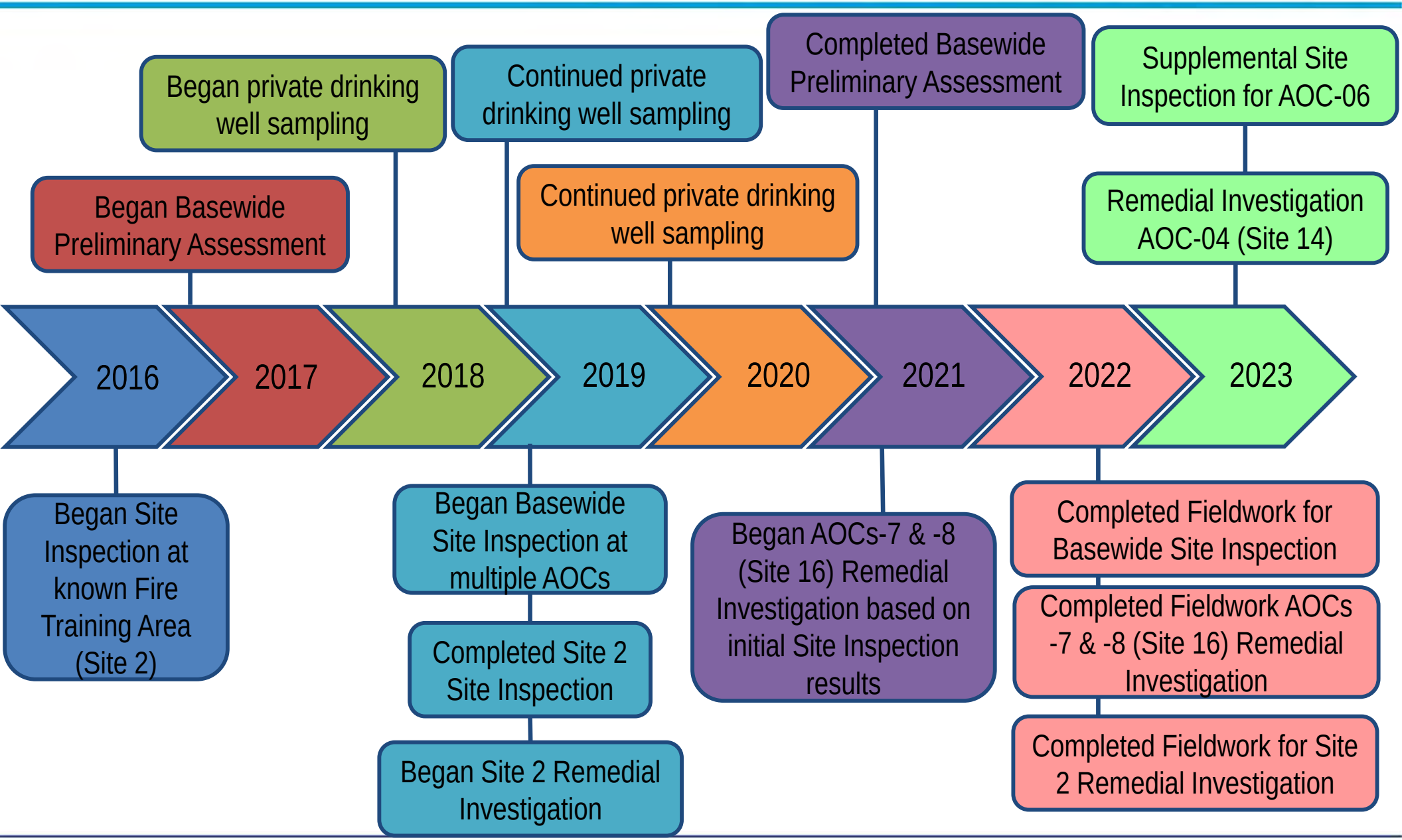
RAB Questions

Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

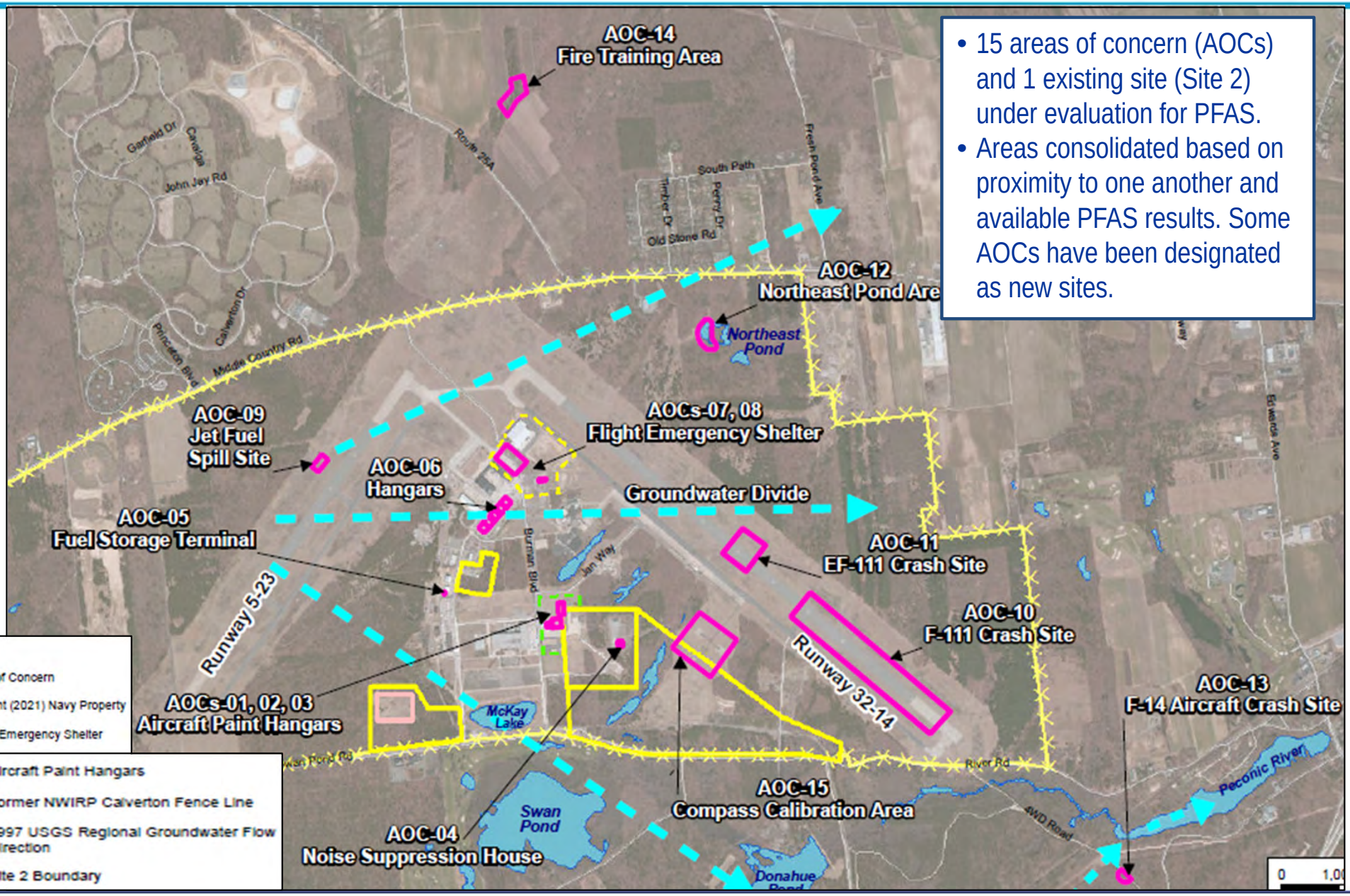
Update of Per- and Polyfluoroalkyl Substances (PFAS) Investigations

Presented by:
Tetra Tech, Inc
NAVFAC Mid-Atlantic
19 April 2023

Timeline of PFAS Investigations



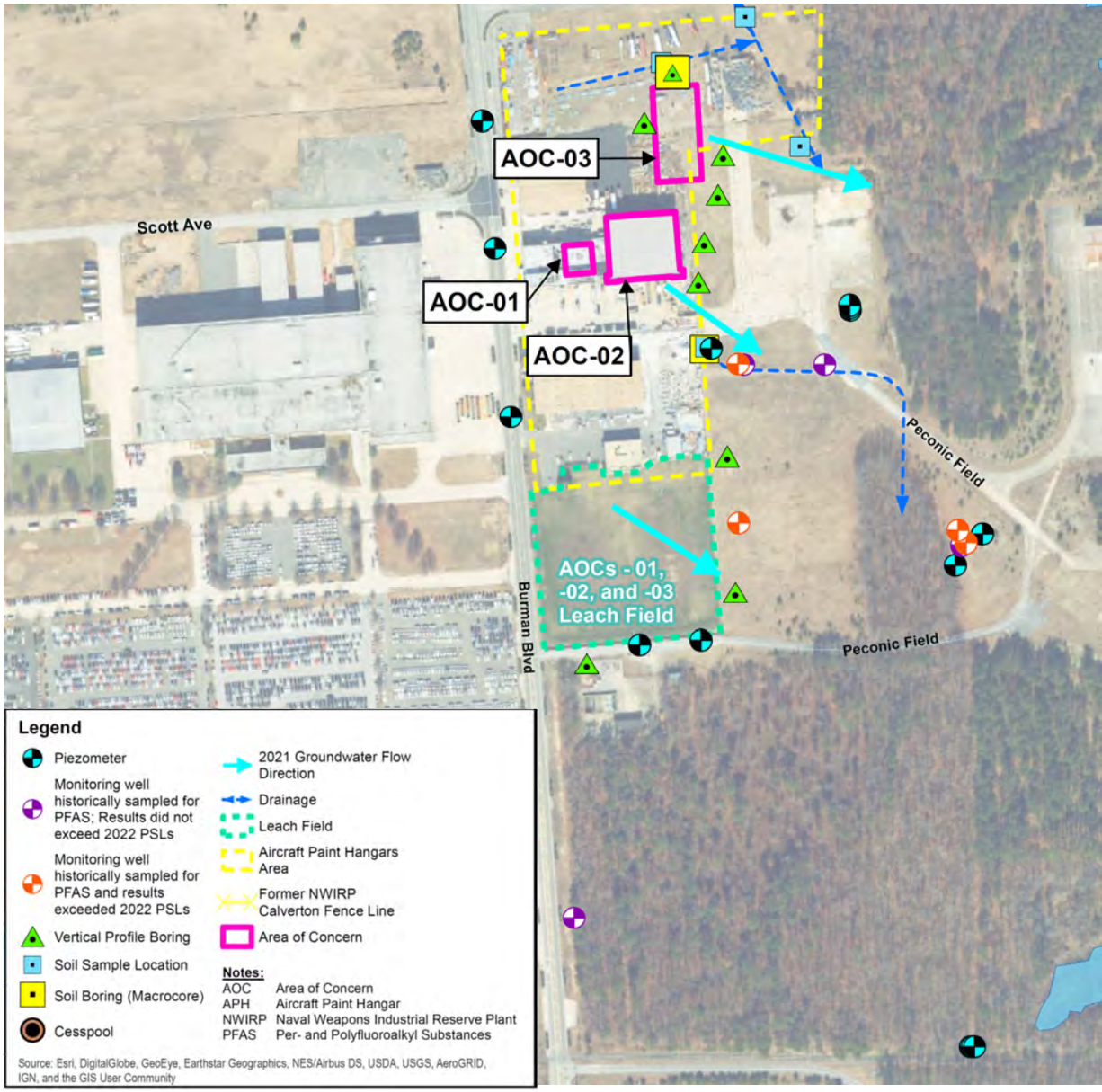
PFAS Areas of Concern



- 15 areas of concern (AOCs) and 1 existing site (Site 2) under evaluation for PFAS.
- Areas consolidated based on proximity to one another and available PFAS results. Some AOCs have been designated as new sites.

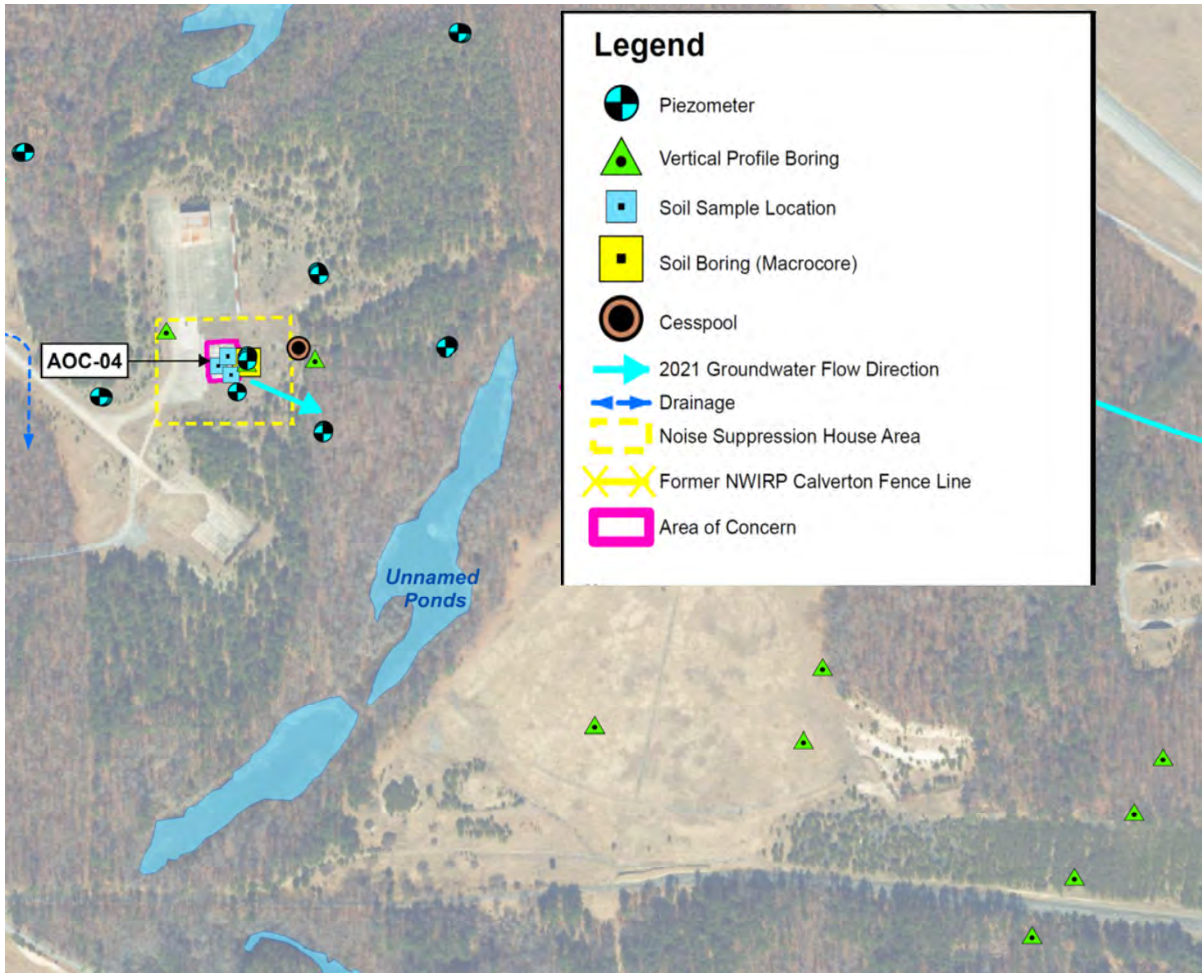
PFAS Areas of Concern
AOCs-01, -02, -03 (Site 17) Aircraft Paint Hangar Area

- AOCs-01, -02, -03 Overview:
  - Buildings were equipped with aqueous film forming foam (AFFF) fire suppression systems.
  - AFFF released in 1980s to test systems.
  - Groundwater flow is to Southeast.
- Investigation Results:
  - Exceedances of screening levels for 1 PFAS (PFNA) in soil and 3 PFAS (PFOA, PFOS, and PFNA) in groundwater.
- Path Forward: AOCs-01, -02, and -03 designated as Site 17. Remedial Investigation – Plan 2025 / Initiate 2026.



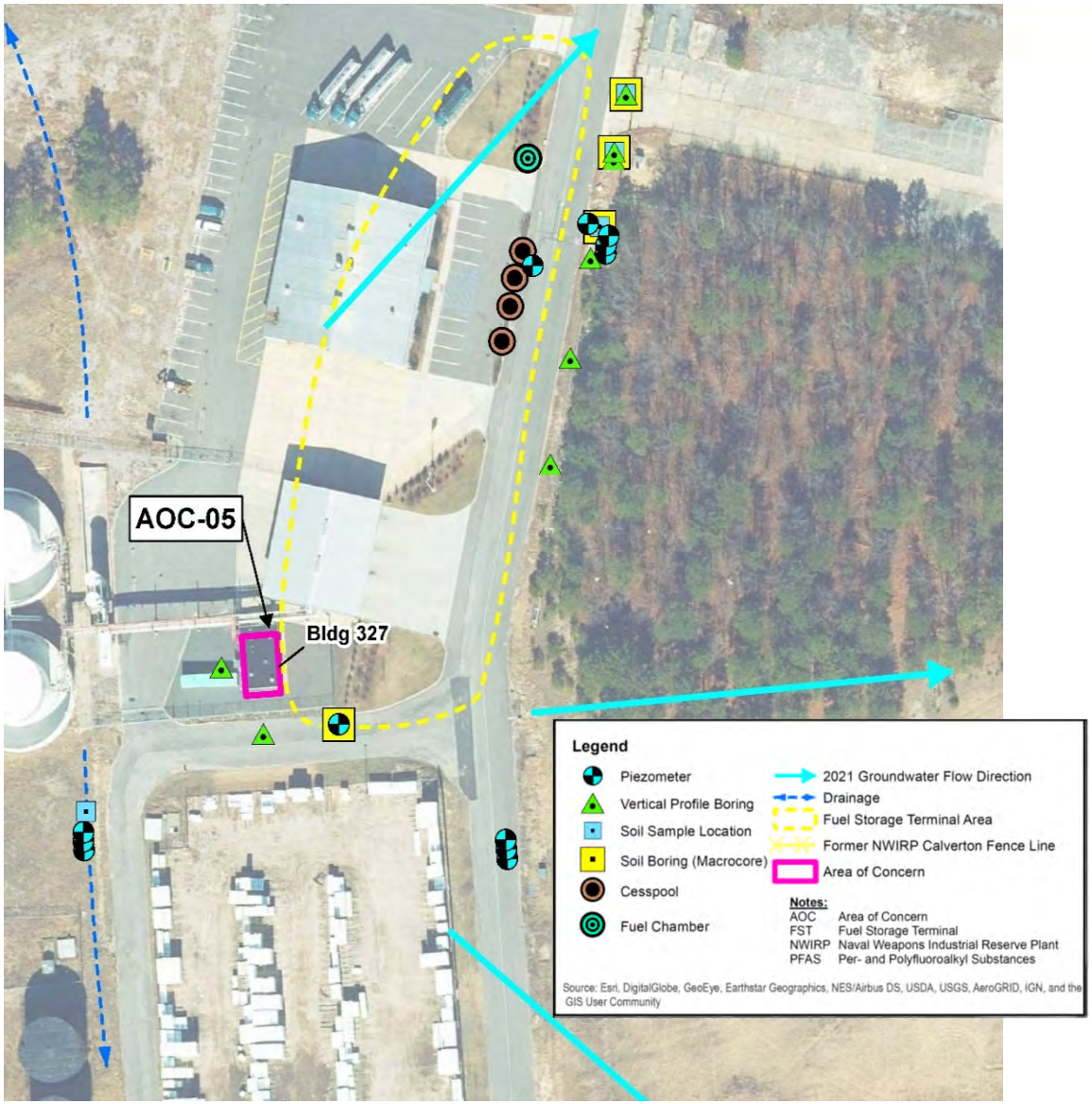
PFAS Areas of Concern
AOC-04 (Site 14) Noise Suppression House

- AOC-04 Overview:
  - Aircraft hangar was used for testing aircraft engines.
  - AFFF was stored at the site in two aboveground storage tanks.
  - Groundwater flow is to Southeast.
- Investigation Results:
  - Exceedances of screening levels for 2 PFAS (PFOA and PFNA) in soil and 3 PFAS (PFOA, PFOS, and PFNA) in groundwater.
  - Highest detected PFAS concentrations at facility.
- Path Forward: AOC 4 designated as Site 14. Remedial Investigation - Finalize planning and initiate in 2023.



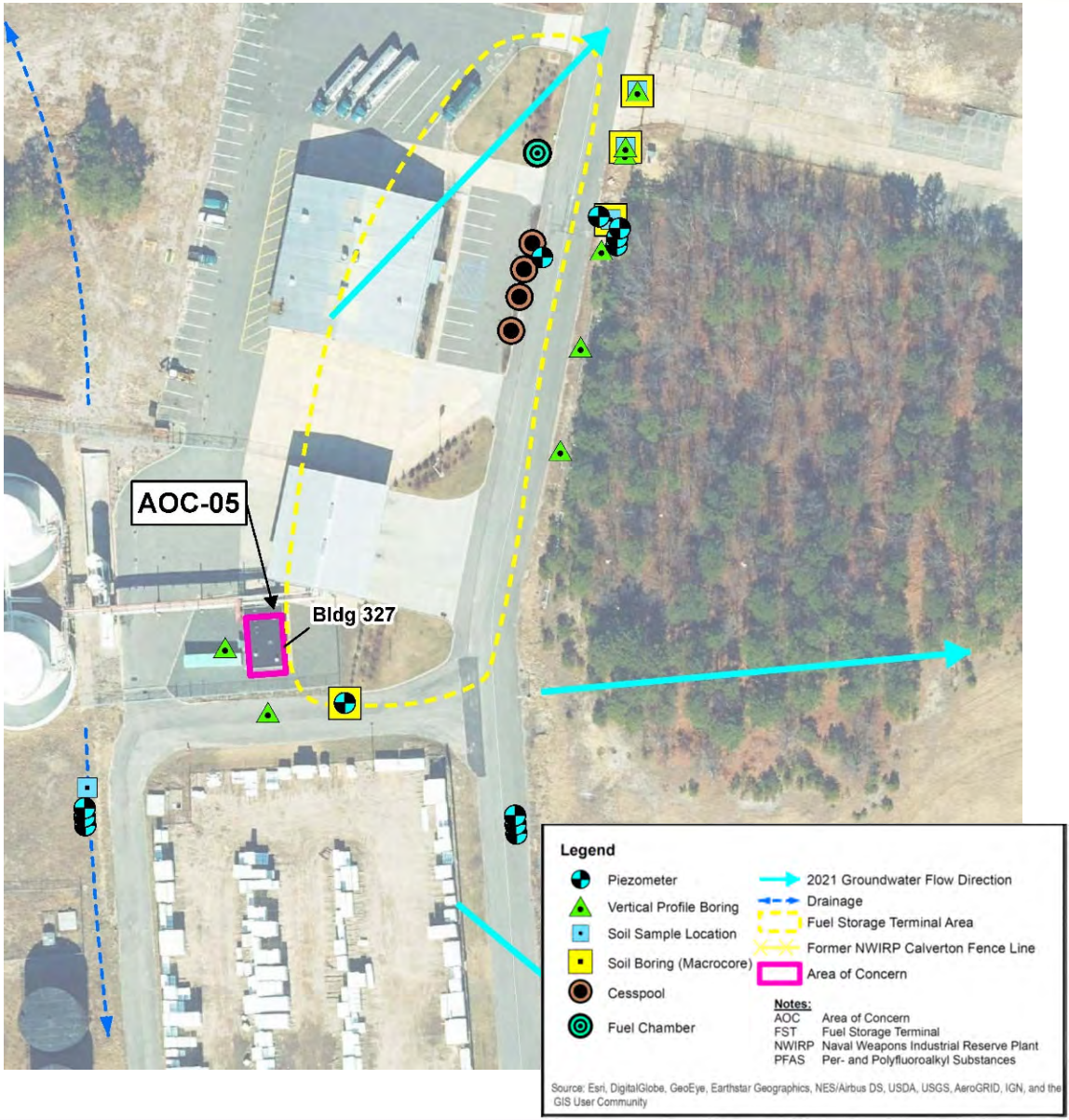
PFAS Areas of Concern
AOC-05 (Site 15) Fuel Storage Terminal

- AOC-05 Overview:
  - Fuel storage terminal was equipped with AFFF fire suppression system.
  - Groundwater flow is to Northeast, East, and Southeast.
  - An inactive public drinking water well located upgradient and to the west.
    - Riverhead Water District indicates the well does not have a Department of Environmental Conservation permit for withdrawal and that the well has not been in service for approximately 10 years.



PFAS Areas of Concern
AOC-05 (Site 15) Fuel Storage Terminal

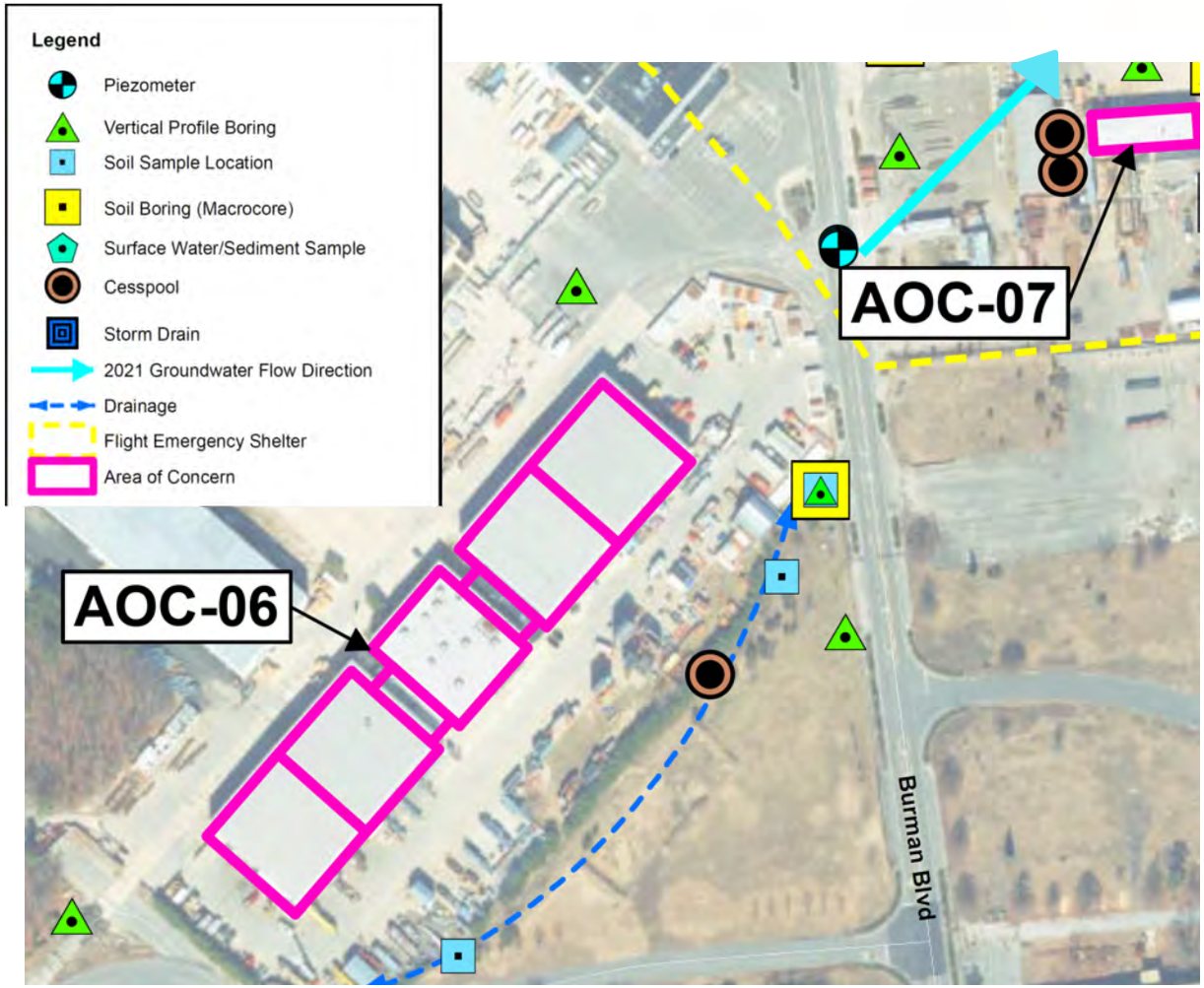
- Investigation Results:
  - No exceedances of screening levels for PFAS in soil.
  - Exceedances of screening levels for 3 PFAS (PFOA, PFOS, and PFNA) in groundwater.
- Path Forward: AOC-05 designated as Site 15. Remedial Investigation - Plan 2026 / Initiate 2027.



PFAS Areas of Concern

AOC-06 Aircraft Development Systems Building and Hangars 5, 6, 7, and 8

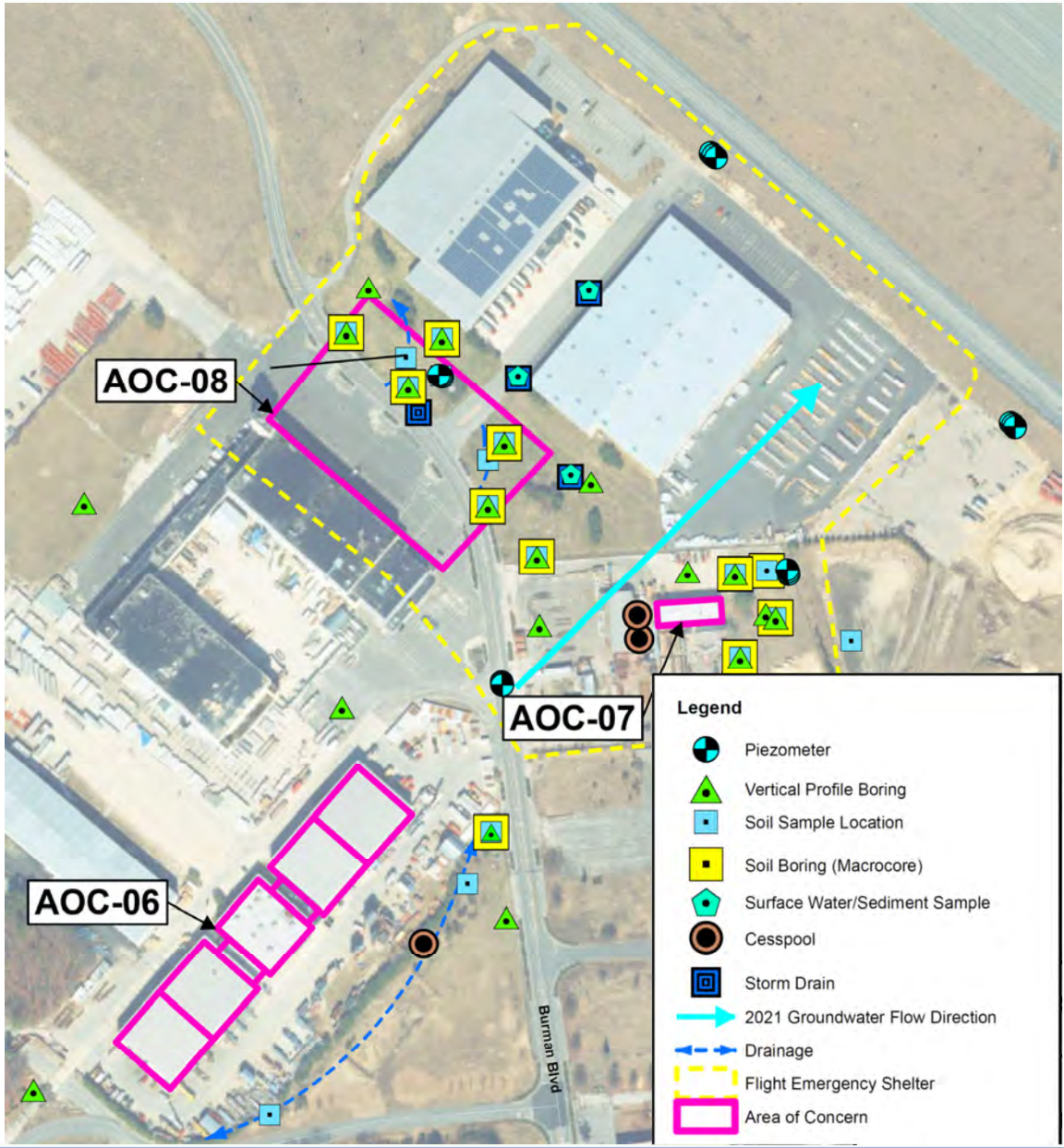
- AOC-06 Overview:
  - Hangars equipped with AFFF fire suppression systems.
  - Groundwater flows to Northeast.
- Investigation Results:
  - No exceedances of screening levels for PFAS in soil.
  - Low-level exceedances of the screening criteria for 3 PFAS (PFOA, PFOS, and PFNA) in groundwater.
- Path Forward: Supplemental Site Inspection in 2023 to determine next step. Coordinate with property owner to continue investigation.



Reference Previous Real Estate Access Presentation

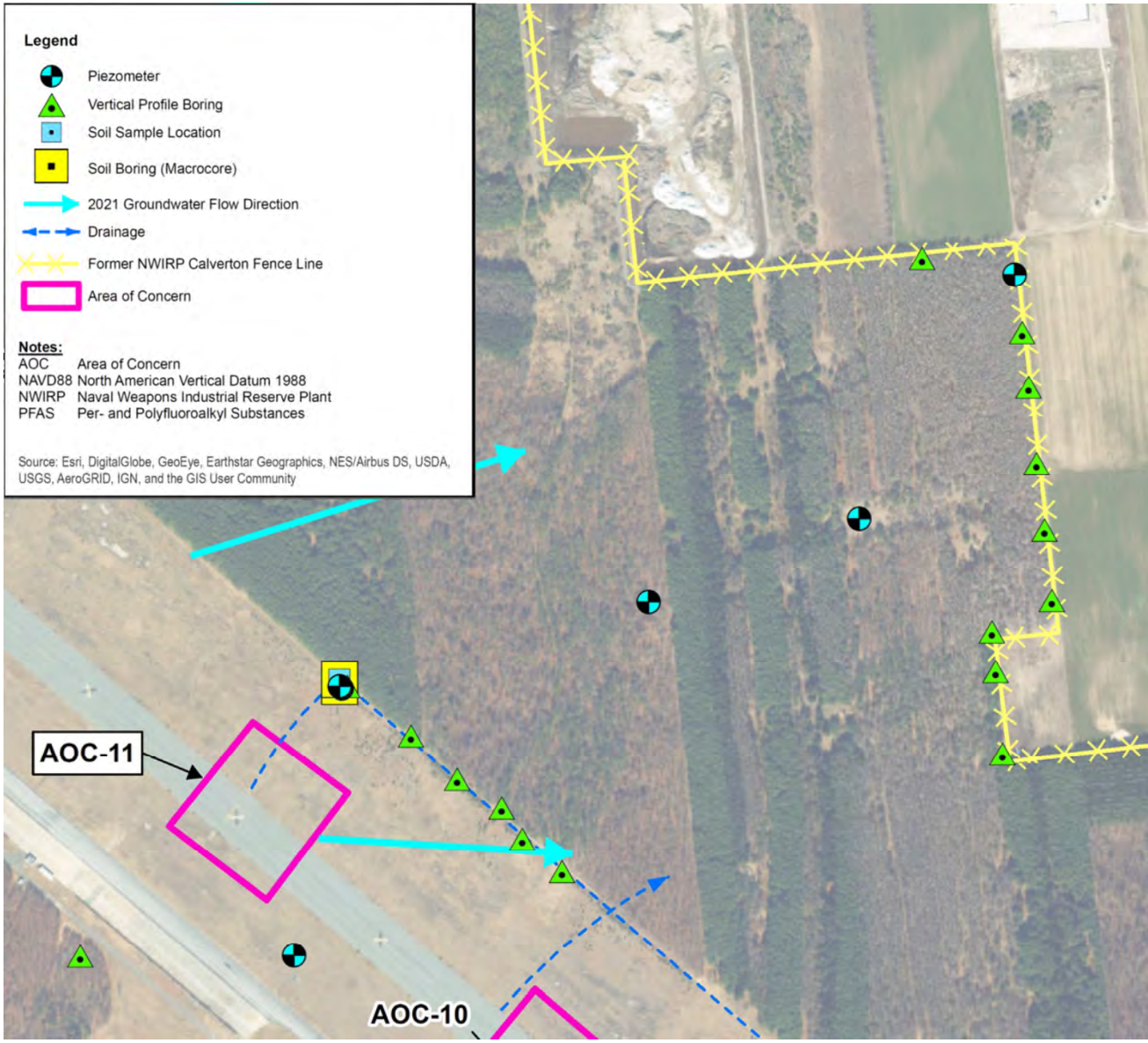
PFAS Areas of Concern
AOCs-07 and -08 (Site 16) – Flight Emergency Shelter

- AOC-07 and -08 Overview:
  - AOC-07: Fire House that stored AFFF
  - AOC-08: Fire Training Area used between 1981 and 1996.
  - Known release of AFFF at AOC-08.
  - Groundwater flows to Northeast.
- Investigation Results:
  - Exceedances of screening levels for 2 PFAS (PFOS and PFNA) in soil and 4 PFAS (PFOA, PFOS, PFNA, and PFHxS) in groundwater.
- Path Forward: AOCs 7 and 8 designated as Site 16. Remedial Investigation in progress.



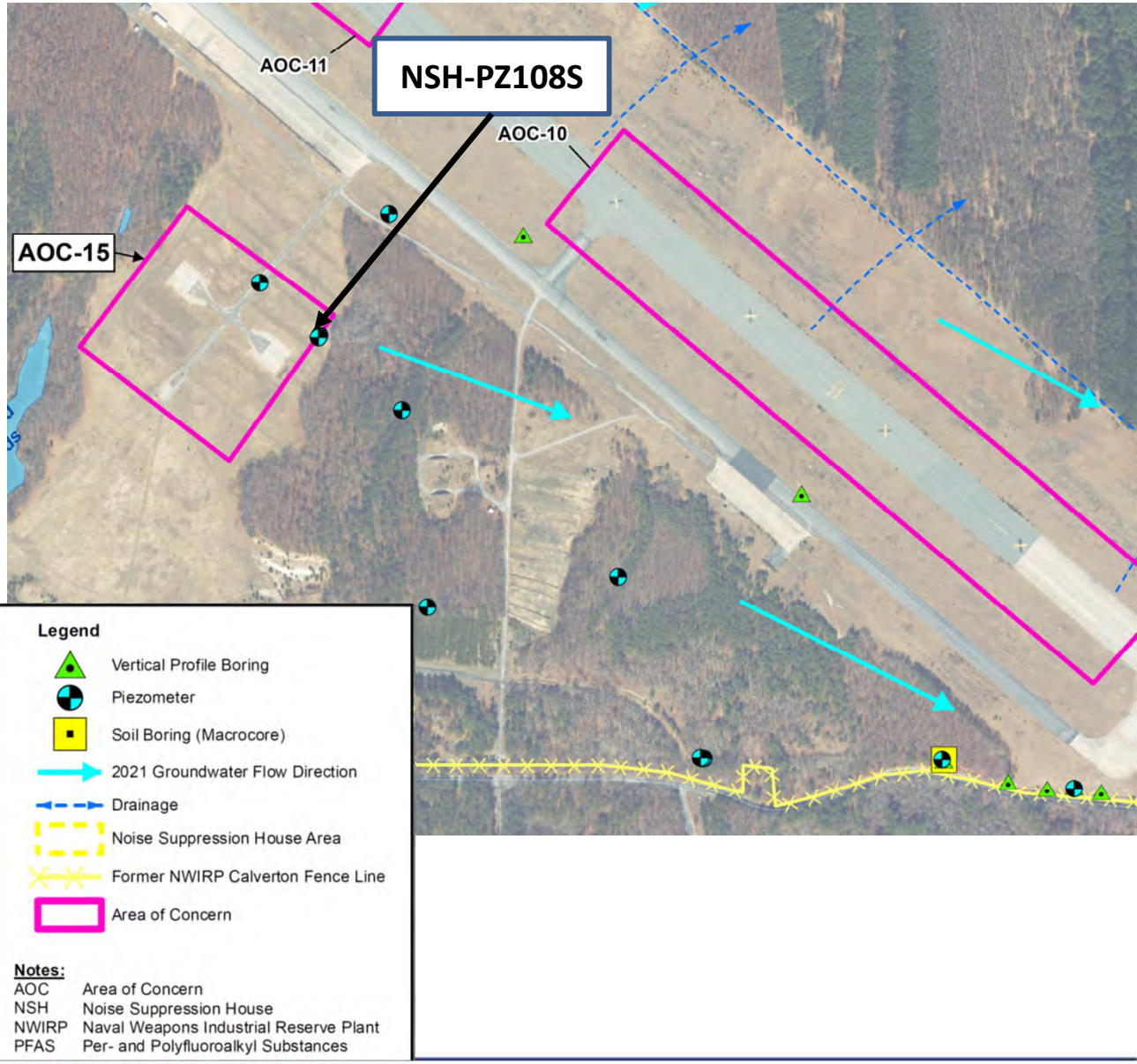
PFAS Area of Concern
AOC-11 (Site 18) EF-111 Crash Site

- AOC-11 Overview:
  - Aircraft crashed on the Eastern runway in 1983.
  - Groundwater flow is East.
- Investigation Results:
  - No exceedances of screening levels for PFAS in soil.
  - Exceedances of screening levels for 4 PFAS (PFOA, PFOS, PFNA, and PFHxS) in groundwater.
- Path Forward: AOC-11 designated Site 18. Remedial Investigation – Plan 2026 / Initiate 2027.



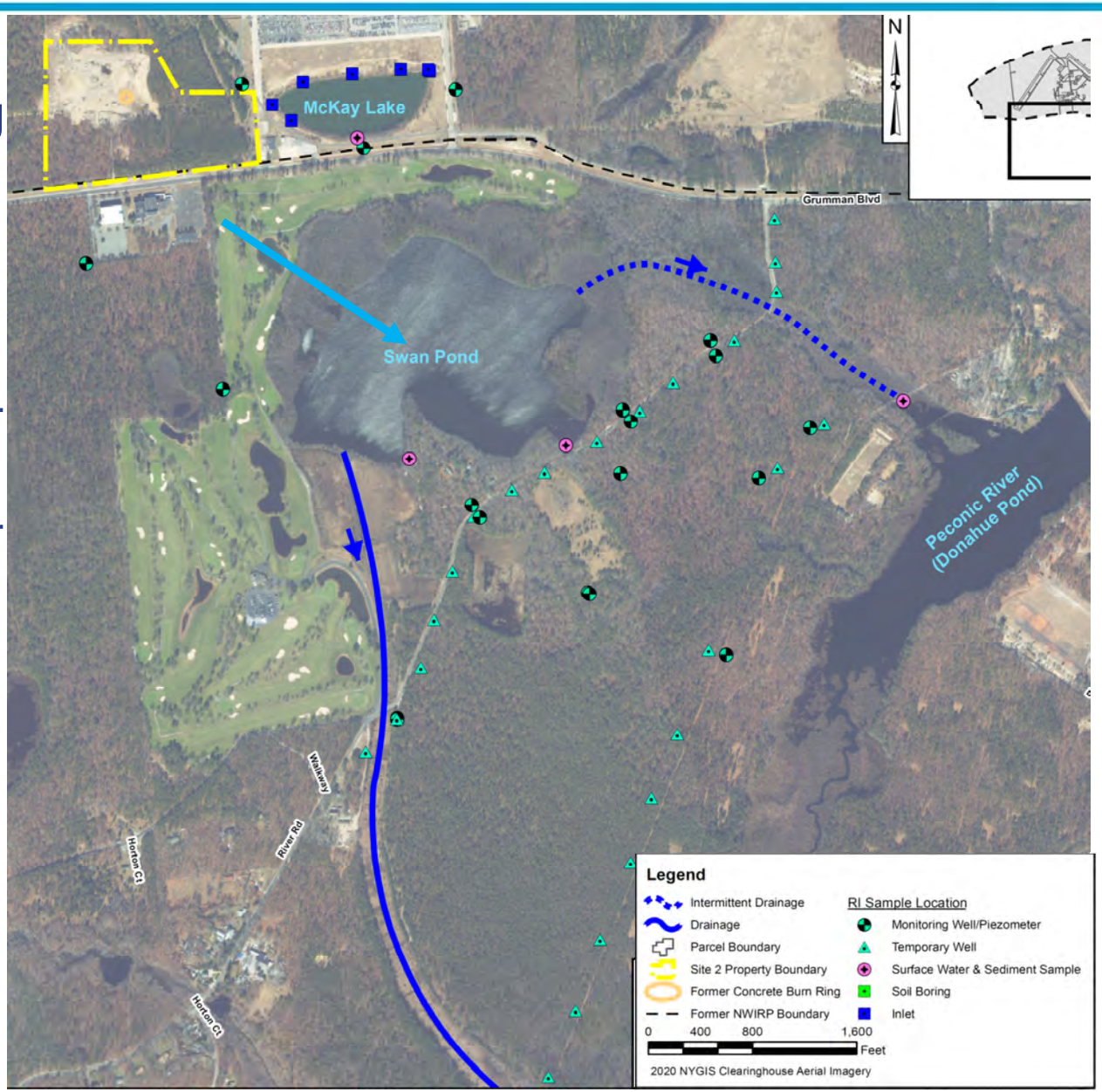
PFAS Areas of Concern
AOC-15 (Site 19) Compass Calibration Area

- AOC-15 Overview:
  - Initial SI results showed significant PFAS at unexpected location (NSH-PZ108S).
  - Groundwater flow is Southeast toward Peconic River.
- Investigation Results:
  - Exceedances of screening levels for 4 PFAS (PFOA, PFOS, PFNA, and PFHxS) in groundwater.
- Path Forward: AOC-15 designated as Site 19. Remedial Investigation – Plan 2024 / Initiate 2025.



PFAS Areas of Concern
Site 2 – Former Fire Training Area

- Site 2 Overview:
  - Area used as an active Fire Training Area from the 1950s until 1996. AFFF used to extinguish fires.
  - Groundwater flow is to Southeast.
- Investigation Results:
  - Exceedances of screening levels for 2 PFAS (PFOS and PFNA) in soil.
  - Exceedances of screening levels for 4 PFAS (PFOA, PFOS, PFNA, and PFHxS) in on property groundwater and 3 PFAS (PFOA, PFOS, and PFNA) in off property groundwater.
- Path Forward: Remedial Investigation in progress.

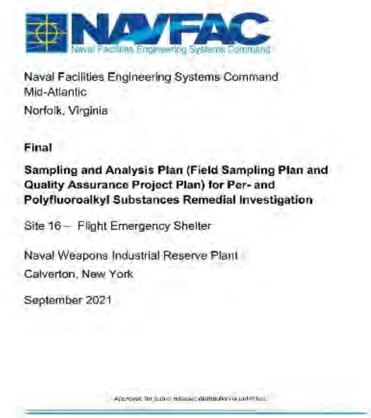


Current Status of PFAS Investigations

- Site Inspections:
  - Purpose is to determine if there was a release requiring action under CERCLA.
  - Facility Wide Site Inspection will be finalized in 2023. Provides path forward for 14 of the 15 PFAS AOCs.
  - Additional data needed to evaluate AOC-6.
- Remedial Investigations:
  - Purpose is to characterize nature and extent of PFAS and evaluate risks.
  - Field investigations are complete and reports are in production for Site 2 and Site 16 (AOCs -07 and -08).
  - Navy is moving forward with planning phase for the following AOCs (Sites) based on priority: AOCs-01, -02, and -03 (Site 17), AOC-04 (Site 14), AOC-05 (Site 15), AOC-11 (Site 18), and AOC-15 (Site 19).
- No Further Action at this Time:
  - Based on data collected during the Facility Wide Site Inspection, the Navy recommends No Further Action at this time for AOCs-09, -10, -12, -13, & -14.

Next Steps for PFAS Investigations

- Sampling and Analysis Plans and Work Plans for next phases of Site Inspection and Remedial Investigation.
  - Sampling and Analysis Plans:
    - Identify project objectives and decision rules for data collection and site evaluation
    - Document sampling approach and rationale, field procedures, and equipment
    - Document laboratory procedures to ensure data quality
    - Typical Duration: 9 to 12 months (preparation, reviews, and approval)
  - Work Plans:
    - Purpose is to concisely document the sampling strategy and rationale.
    - Approved by New York State Department of Environmental Conservation and Department of Health.
    - Typical Duration: 4 to 6 months (preparation, reviews, and approval)


NAVFAC

Naval Facilities Engineering Systems Command
Mid-Atlantic
Norfolk, Virginia

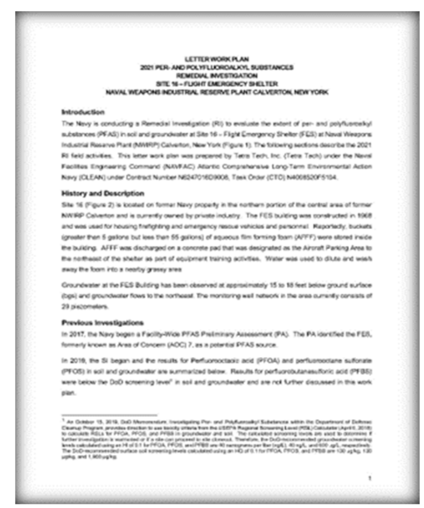
Final

Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan) for Per- and Polyfluoroalkyl Substances Remedial Investigation

Site 16 – Flight Emergency Shelter

Naval Weapons Industrial Reserve Plant
Calverton, New York

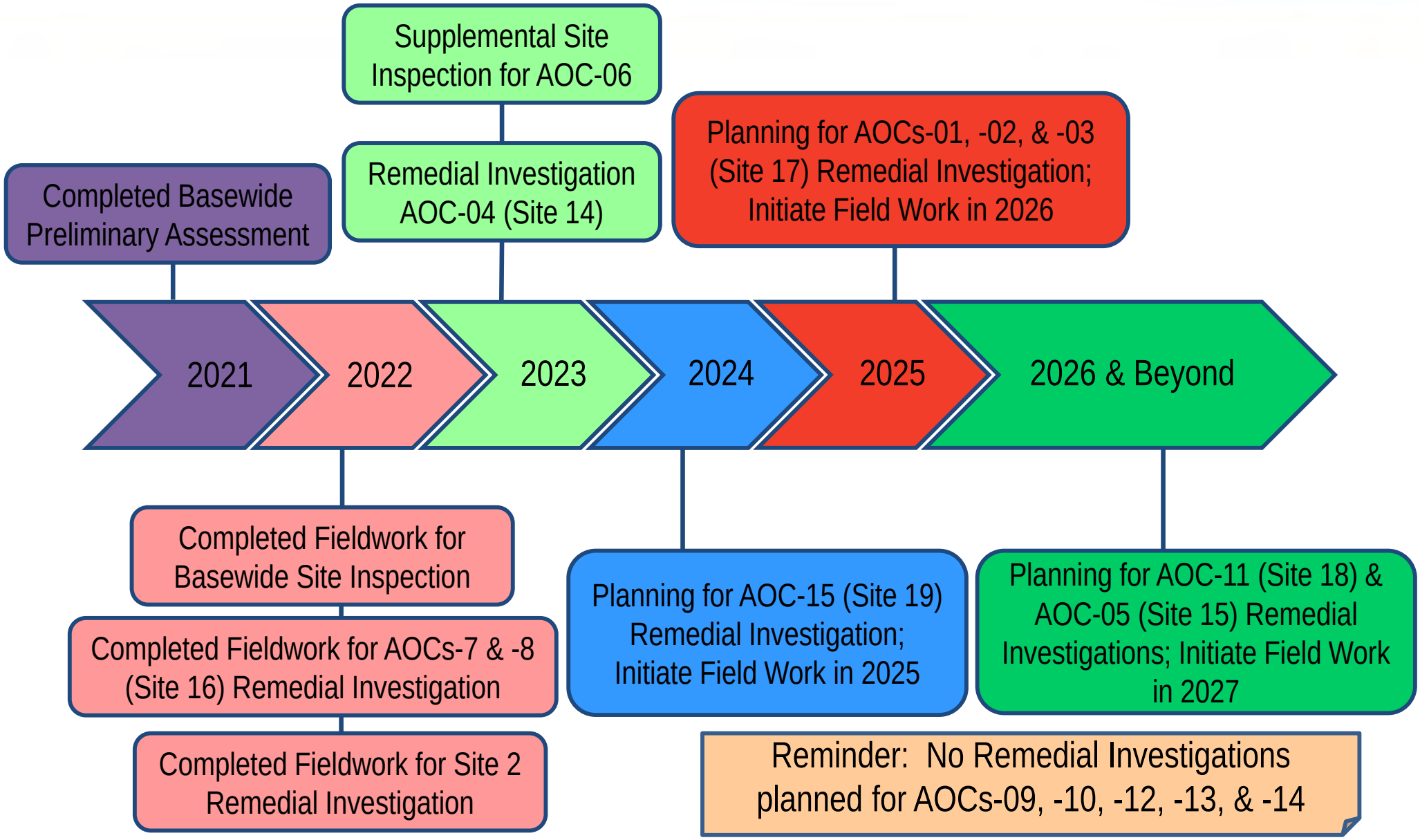
September 2021


LETTER WORK PLAN
2021 PER- AND POLYFLUOROALKYL SUBSTANCES
REMEDIAL INVESTIGATION
SITE 16 – FLIGHT EMERGENCY SHELTER
NAVAL WEAPONS INDUSTRIAL RESERVE PLANT CALVERTON, NEW YORK

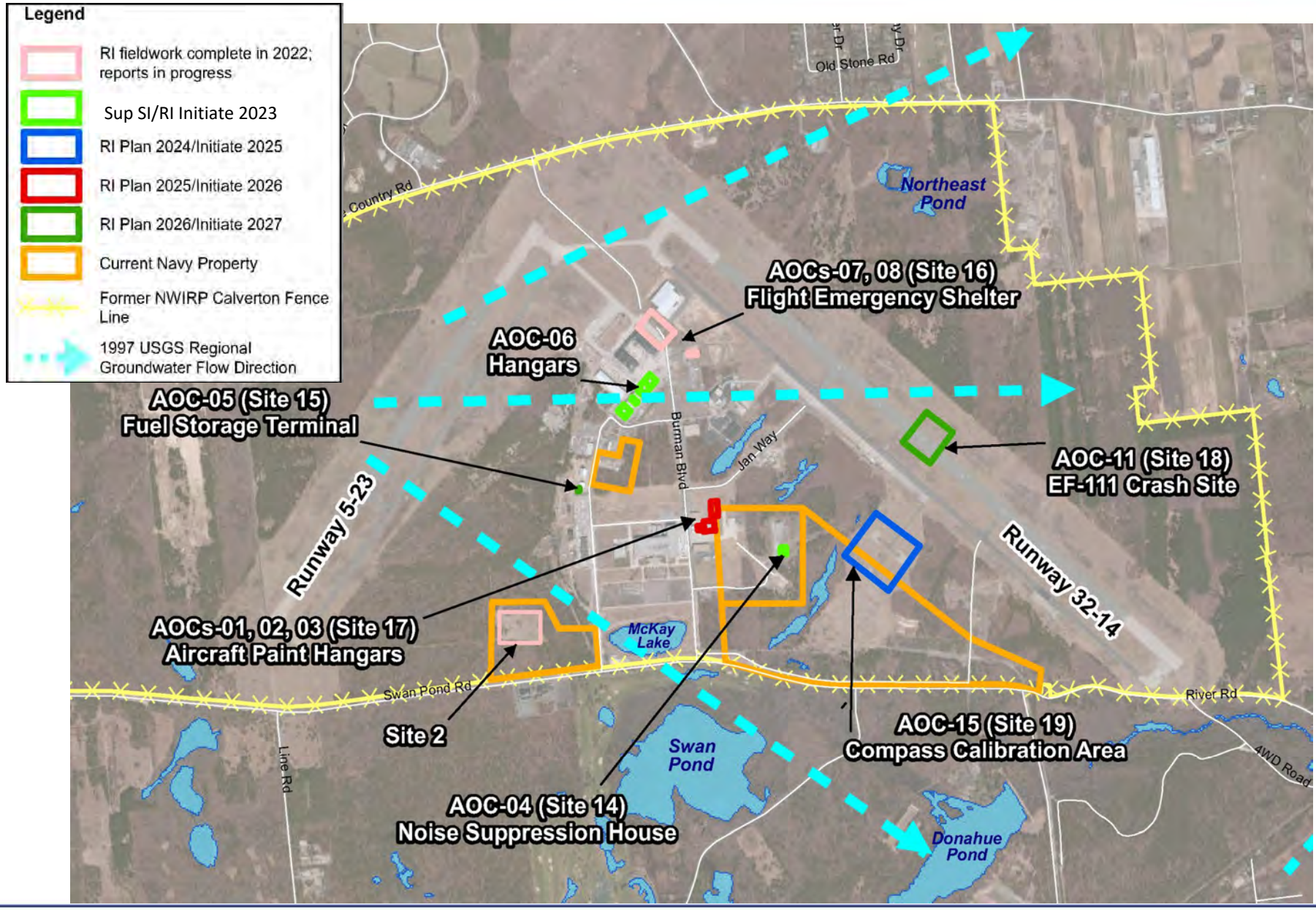
Next Steps for PFAS Investigations

- PFAS Investigations at AOCs and Sites will be prioritized based on the following:
  - PFAS concentrations are the highest.
  - PFAS in groundwater has the highest potential to migrate off the facility.
  - Availability of funding.

Timeline for PFAS Investigation Next Steps



Visual Timeline for PFAS Investigation Next Steps



Next Steps for PFAS Investigations Contractor Procurement

- Utility Clearance for subsurface work
- Drilling services
- Surveyors
- Investigation-Derived Waste disposal following State and Federal regulations

PFAS MAPS

QUESTIONS?

Naval Facilities Engineering Systems Command
NAVFAC MID-ATLANTIC

Volatile Organic Compound Monitoring Naval Industrial Reserve Plant Calverton Calverton, New York

Presented by:
Tetra Tech, Inc
NAVFAC Mid-Atlantic
19 April 2023

Volatile Organic Compound Background

- Volatile Organic Compounds (VOCs):
  - Useful properties: solvent that removes grease and oils
  - Consumer products: cleaning products and paints
  - Industrial uses: fuels, metal degreasing agent, paints, and glue
- VOC Monitoring Sites at Former NWIRP Calverton
  - Site 2 – Former Fire Training Area
  - Site 6A – Southern Area
  - Site 7– Fuel Depot

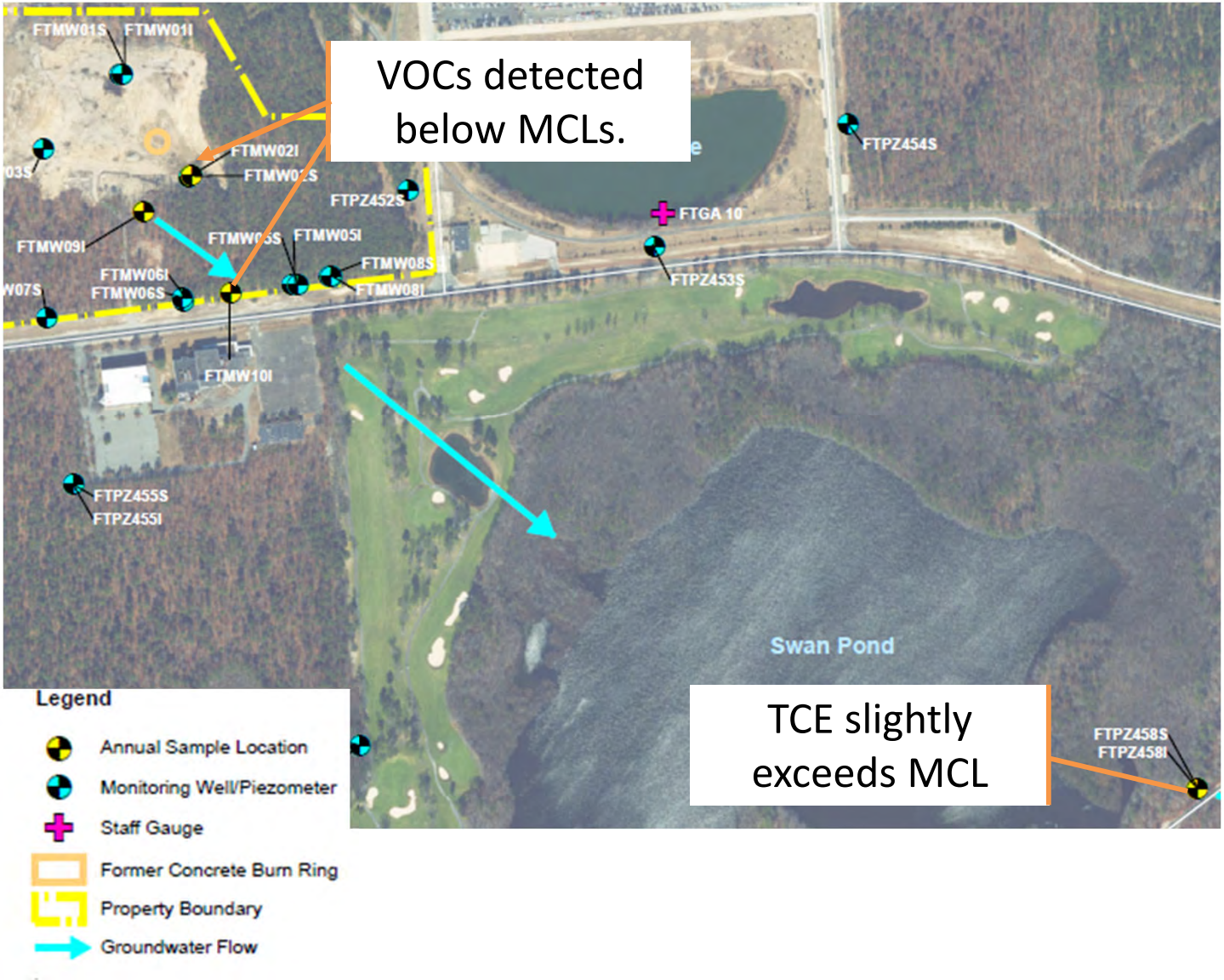
Solvent Breakdown:
TCE → DCE → Vinyl Chloride

Site 2- Former Fire Training Area
Site History

- 1950's to 1996: Fire Training Area
- Groundwater has been impacted by petroleum, chlorinated solvents, and other chemicals
- Two VOC groundwater plumes delineated in 2012; Primary contaminants: Trichloroethene (TCE) and Xylene
- Interim Actions (excavation and Air Sparge / Vapor Extraction/ removal of buried drums)
- Remedy selection for VOCs in groundwater delayed to investigate per- and polyfluoroalkyl substances and 1,4-dioxane

Site 2- Former Fire Training Area 2022 VOC Results

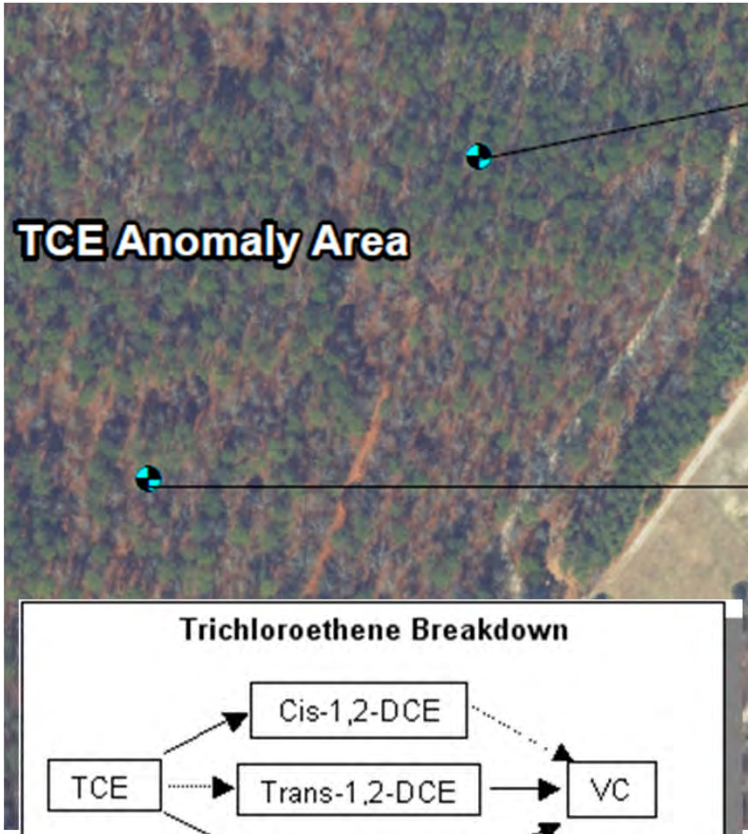
- Fall 2022: Collected groundwater samples from 8 monitoring wells
  - 4 wells on property
  - 2 wells South of Swan Pond
  - 2 wells in TCE Anomaly Area
- **On property:** VOCs detected in two wells below Maximum Contaminant Levels (MCLs)
- **South of Swan Pond**: TCE slightly exceeded MCL of 5 ppb at 5.8 ppb
- **Conclusion:** On property 2012 TCE and Xylene Plumes have attenuated



1 µg/L = 1 ppb

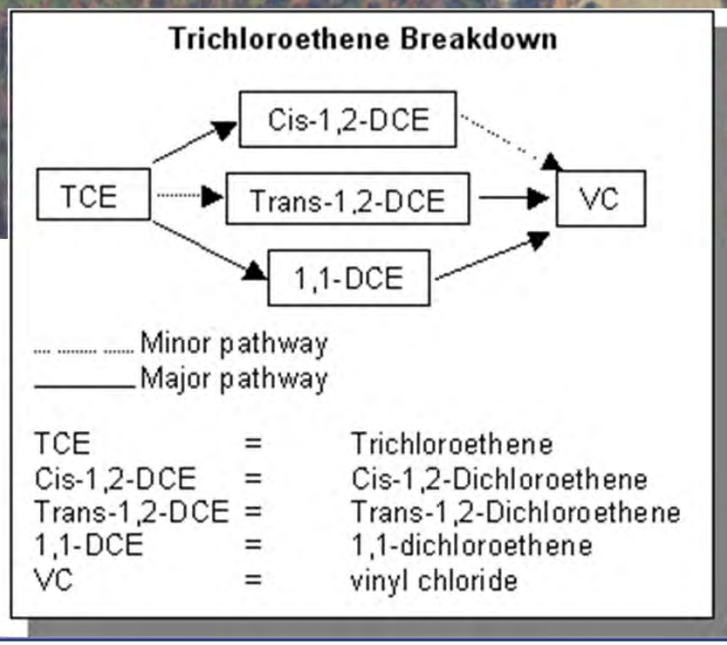
Site 2 Former Fire Training Area
TCE Anomaly Area

- 1994: Maximum detection of TCE on-property = 94 ppb
- 2012: Maximum detection of TCE in Anomaly Area = 600 ppb
- 2013: Further investigation west of the anomaly did not identify a source
- Fall 2022: TCE and breakdown products exceeded MCLs in 2 wells
  - TCE: 70 ppb
  - 1,1-Dichloroethane (DCA): 31 ppb
  - 1,1-Dichloroethene (DCE): 95 ppb
- Conclusion: Decreasing results of TCE and degradation (breakdown) products (DCE and DCA) indicate that TCE is degrading in this area



	FT-PZ461I			
feet bgs	54 to 59			
feel msl	-6 to -11			
VOCs	9/24/19	9/1/20	8/26/21	9/19/22
1,1-DCA	ND	0.8 J	0.64 J	0.5 J
1,1-DCE	1.1 J	0.91 J	0.84 J	0.63 J
Acetone	6.1 J	2.3 J	ND	ND
Cis-1,2-DCE	2.2 J	1.2 J	1.2	0.78 J
PCE	0.81 J	0.42 J	0.37 J	ND
TCE	**22.8**	**12.4**	**11**	**6.4**

	FT-PZ460I			
feet bgs	45 to 50			
feel msl	-6 to -11			
VOCs	9/24/19	9/04/20	8/26/21	9/19/22
1,1-DCA	**38.1**	**35.1**	**34**	**31**
1,1-DCE	**100**	**90.7**	**97**	**95**
1,2-DCA	ND	0.75 J	0.54 J	0.6 J
Carbon Disulfide	ND	ND	ND	0.3 J
Acetone	7.1 J	ND	ND	ND
Chloromethane	0.37 J	ND	ND	ND
Cis-1,2-DCE	**8.2**	**9.8**	**14**	**11**
PCE	**5.7**	**5.7**	**7.7**	**6.6**
TCE	**94.3**	**83.2**	**82**	**70**
Vinyl Chloride	0.72 J	0.77 J	0.5 J	0.52 J

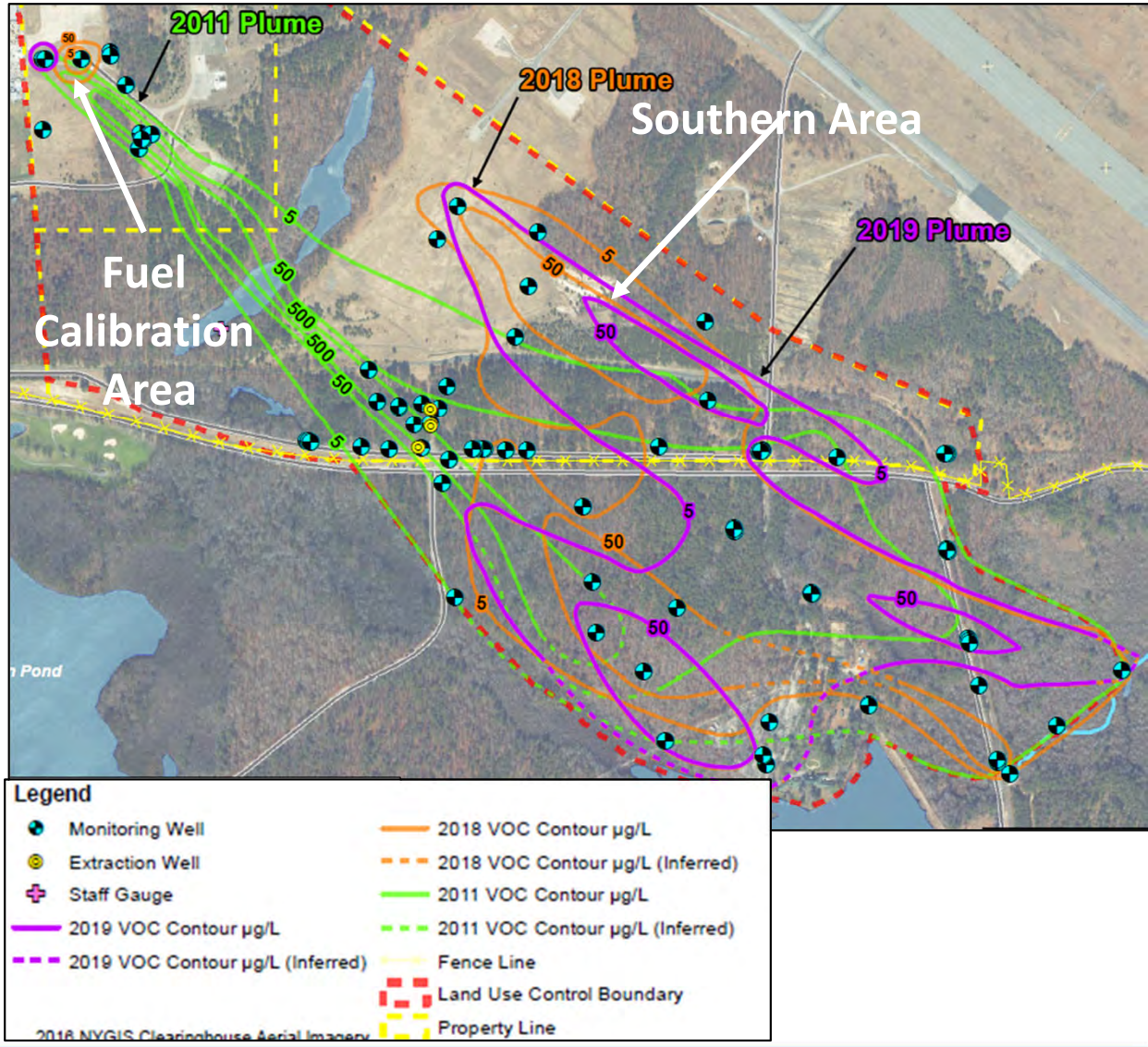


1 µg/L = 1 ppb

Site 6A – Southern Area and Plume Boundary Site History

- 1950's to 1996:
  - Site 6A – Former Fuel Calibration Area : Used for testing aircraft fuel and engine systems
  - Frequent, small fuel and solvents likely spilled during use at the Site
  - Site 6A – Southern Area is the downgradient VOC groundwater plume
- 2009-2010: Interim Actions included source area excavation and a bio-study
- 2011: Chlorinated VOC plume delineation based on 1,1,1-Dichloroethane (DCA) and degradation products
  - 1,1-dichloroethane (DCE)
  - 1,1,1-trichloroethane (TCA)
  - chloroethane

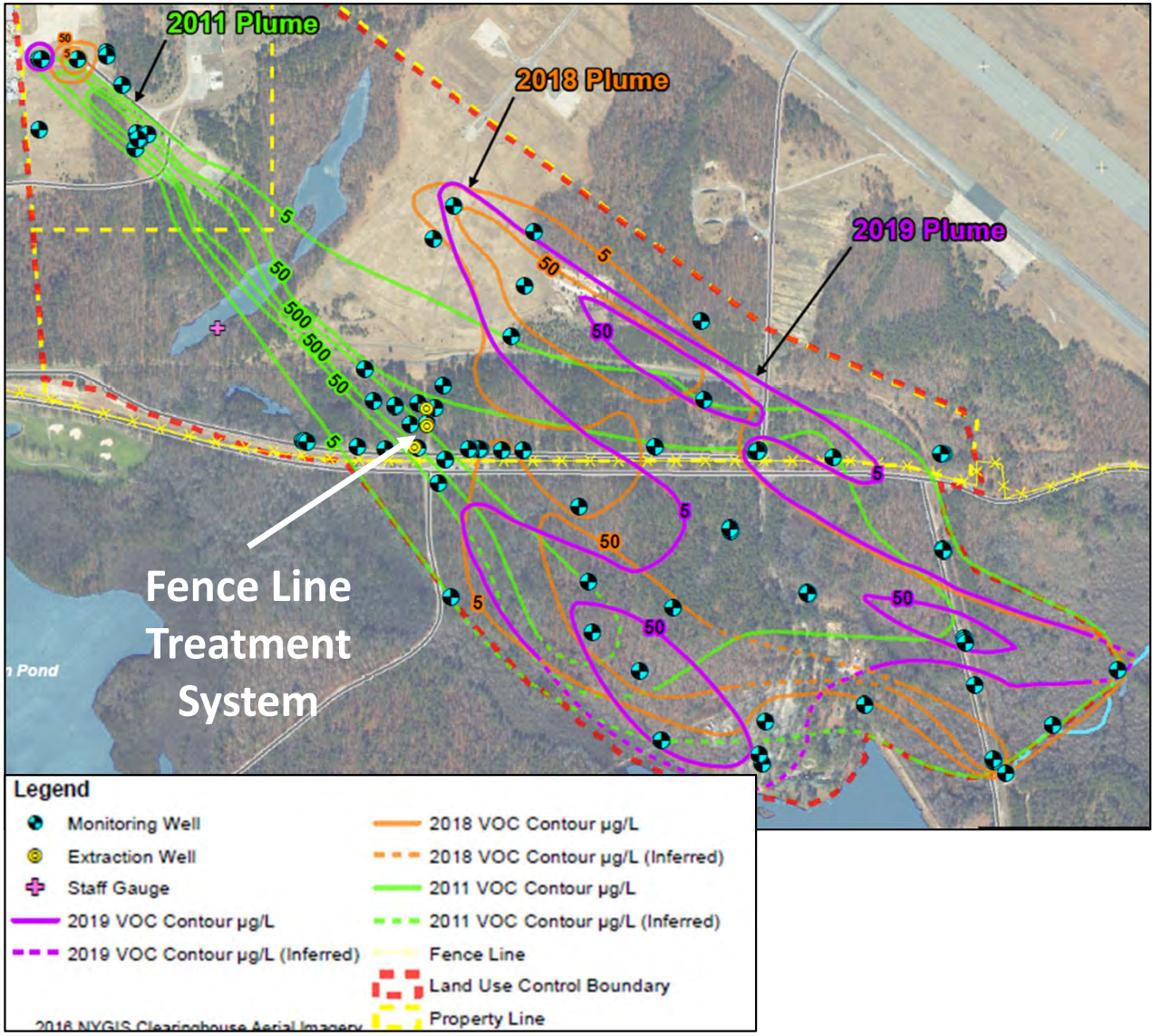
Chlorinated Solvent Plumes



Site 6A – Southern Area and Plume Boundary Site History

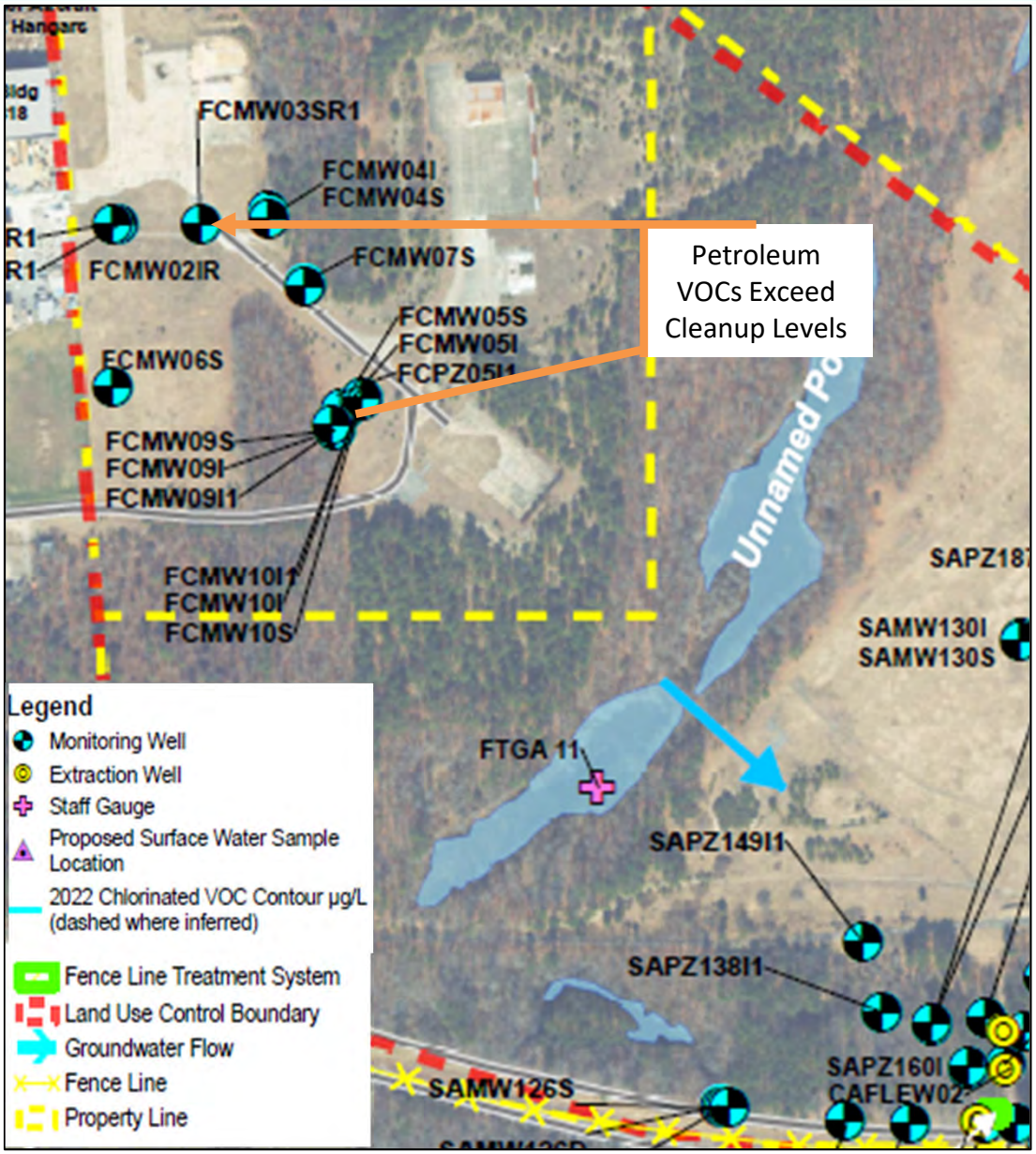
- 2012: Record of Decision signed
  - Identified Chemicals of Concern (COCs) & established cleanup levels
    - Groundwater cleanup levels = New York State MCLs
    - Porewater and surface water (Peconic River) cleanup levels based on ecological benchmarks
- October 2013 to March 2019: Operation of Fence Line Treatment System (FLTS)
  - Air stripping removed 54.5 pounds of VOCs over lifetime
- 2014 to Present: Long Term Monitoring (LTM)
  - Annual groundwater monitoring
  - Biannual porewater and surface water monitoring in Peconic River

Chlorinated Solvent Plumes



Site 6A - Southern Area
2022 VOC Results- On Property Groundwater

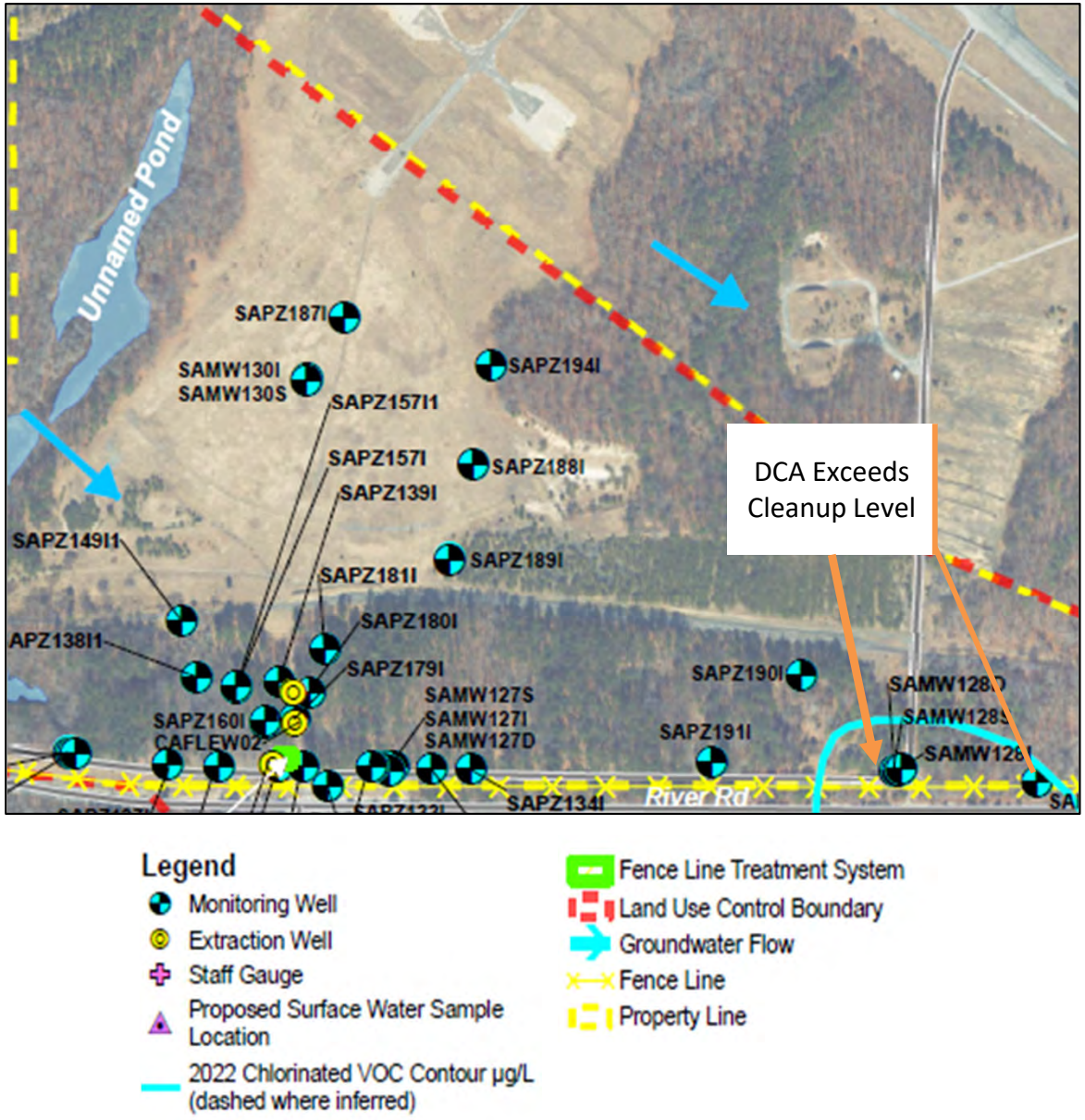
- Fall 2022: Collected groundwater samples from 44 wells
- Fuel Calibration Area: Petroleum related VOCs remain in shallow groundwater above cleanup levels at two wells.
  - 7 wells sampled
  - Max. Ethylbenzene: 81 ppb
  - Max. Isopropylbenzne: 33 pb
  - Max. Naphthalene: 85 ppb
- DCA and it's degradation products have attenuated in the Fuel Calibration Area



1 µg/L = 1 ppb

Site 6A - Southern Area
2022 VOC Results- On Property Groundwater

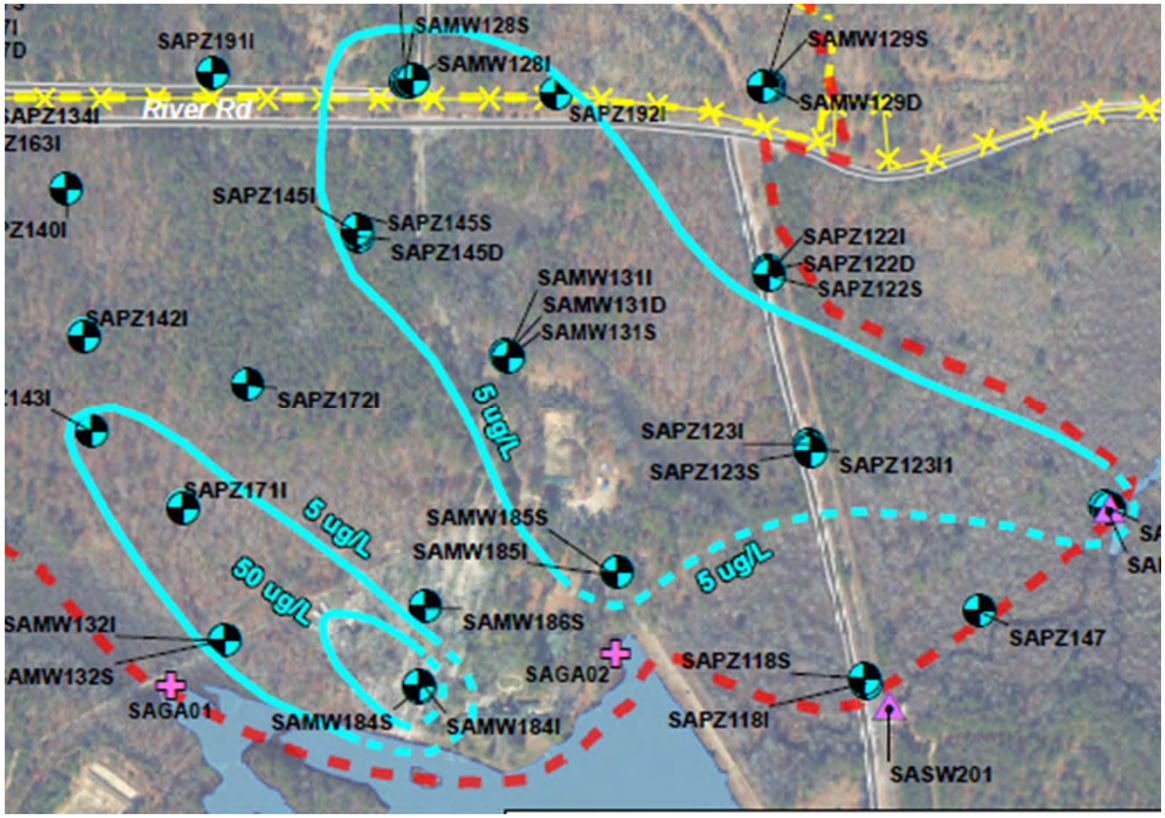
- On Property Southern Area: DCA exceeds cleanup levels at 3 wells at the southeastern fence line.
  - 13 wells sampled
  - Max. DCA: 31 ppb
  - VOCs not detected around FLTS building
  - No other exceedances of ROD Chemicals of Concern on property
- Chlorinated VOCs have migrated off property and are no longer impacting on property groundwater



1 µg/L = 1 ppb

Site 6A - Southern Area
2022 VOC Results- Off Property

- Off Property: VOCs still exceeded the cleanup levels in 9 wells
  - 24 wells sampled
  - Max DCA: 110 ppb
  - Max. DCE: 7.2 ppb
  - Max. Chloroethane: 7.2 ppb
- Summary:
  - Residual petroleum related VOCs are present in shallow groundwater at the source area (Fuel Calibration Area)
  - DCA and degradation products have attenuated and are no longer impacting on property groundwater
  - DCA and degradation products decreasing off property but still exceed ROD cleanup levels

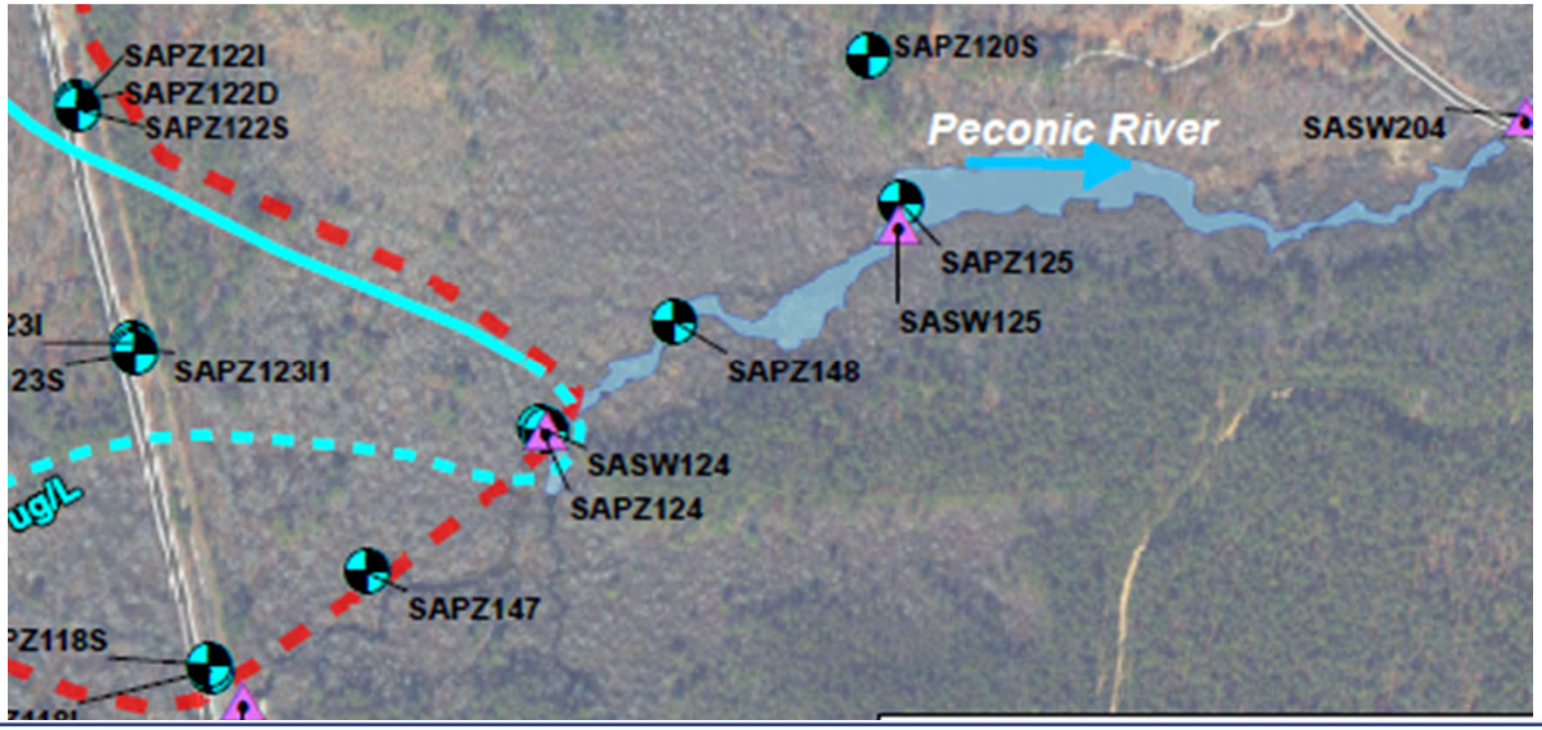


Legend

- Monitoring Well
- Extraction Well
- Staff Gauge
- Proposed Surface Water Sample Location
- 2022 Chlorinated VOC Contour µg/L (dashed where inferred)
- Fence Line Treatment System
- Land Use Control Boundary
- Groundwater Flow
- Fence Line
- Property Line

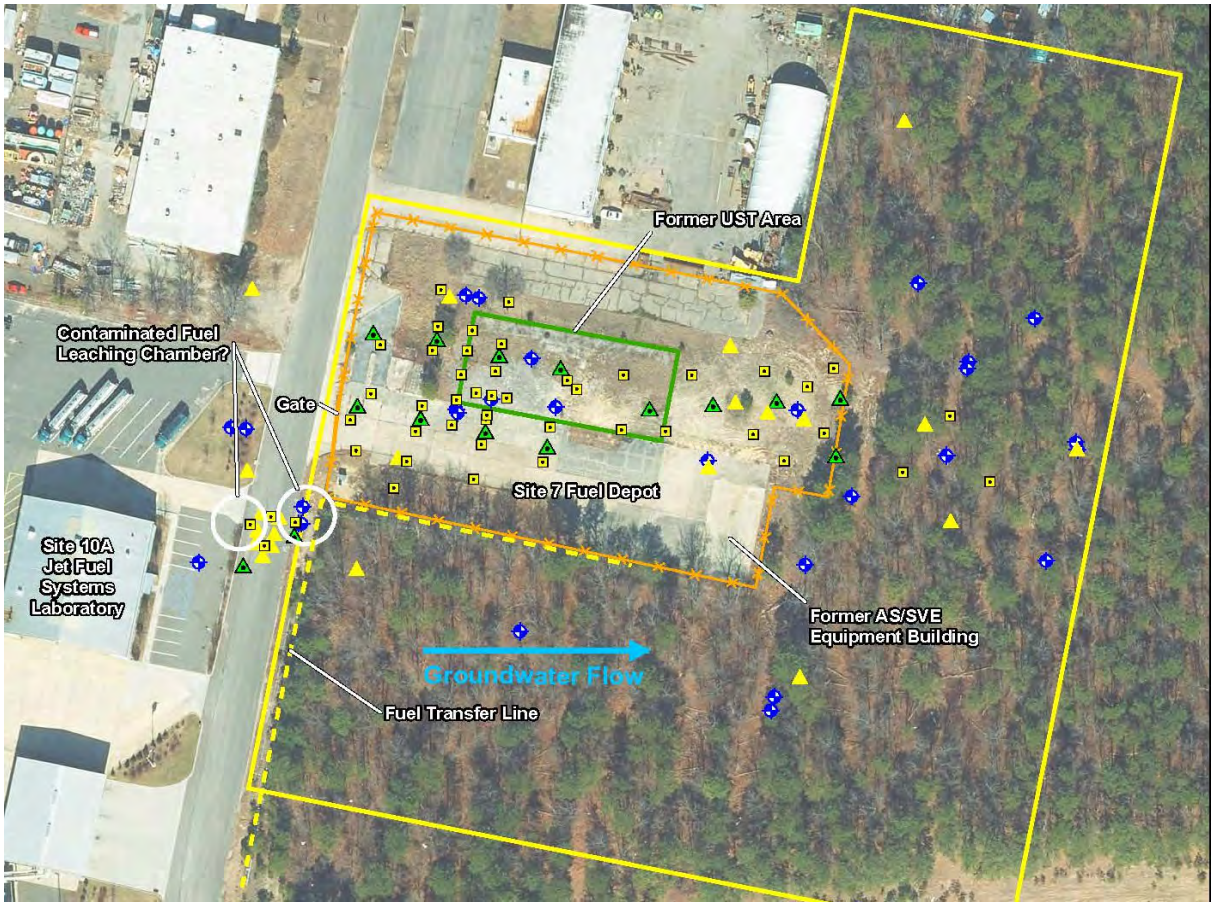
Site 6A - Southern Area
2022 VOC Results- Peconic River

- Peconic River Porewater & Surface Water:
  - 4 surface water locations, 4 porewater wells, and 2 groundwater wells sampled in June and September 2022
  - DCA detected below ecological benchmarks (ROD cleanup level) in surface water
  - DCA, DCE, Chloroethane detected below ecological benchmarks in porewater at one piezometer

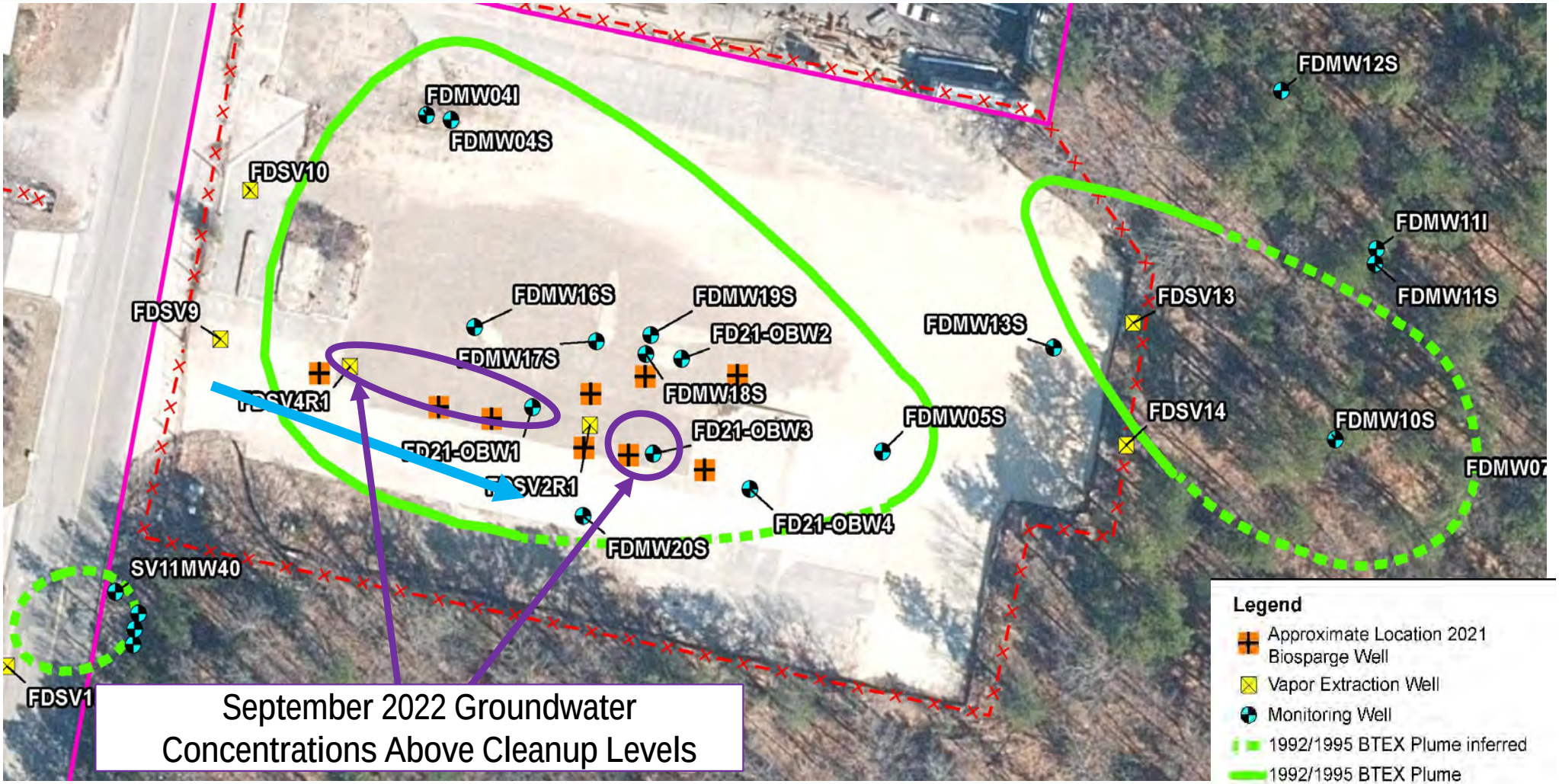


Site7 Fuel Depot
Site History & Remedial Actions

- 1950s to 1996: Fuel depot area used for storage and distribution of jet fuel.
  - Petroleum related volatile organic compounds (VOCs) in soil and groundwater
- 1997: Removal of USTs and fueling structures.
- 2003: Record of Decision signed
- 2006 to 2013: Operation of air sparge/soil vapor extraction system to treat contaminants in groundwater
- 2019: Excavation of remaining source area
- 2021: Began operation of a biosparge system to address residual contamination south of source area.
- Ongoing: Long-Term Monitoring for VOCs in groundwater



Site 7- Fuel Depot
September 2022 Groundwater Plume



Biosparge System will return to operation for final polishing in 2023.

QUESTIONS?

PFAS Drinking Water Sample Analytical Summary			
	2018 Sampling	**2019 Sampling**	**2020 Sampling**
Analytical Method	**EPA Method 537**	**EPA Method 537**	**EPA Method 537.1**
Parameter	**MDL (ppt)**	**MDL (ppt)**	**MDL (ppt)**
HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)	--	0.08 to 0.09	0.08
PENTADECAFLUOROOCTANOIC ACID (PFOA)	2.86 to 3.04	0.18 to 0.2	0.17
PERFLUOROBUTANESULFONIC ACID (PFBS)	2.86 to 3.04	0.11 to 0.12	0.1
PERFLUOROHEXANESULFONIC ACID (PFHXS)	2.86 to 3.04	0.11 to 0.12	0.1
PERFLUORONONANOIC ACID (PFNA)	2.86 to 3.04	0.11 to 0.12	0.1
PERFLUOROOCTANESULFONIC ACID (PFOS)	2.86 to 3.04	0.13 to 0.15	0.13

HFPO-DA was not available for analysis in 2018.
14 Private well samples were collected in 2018 & 2019 downgradient of Areas of Concern (AOCs) 01-12.
1 Private well was sampled downgradient of Site 2 in 2020.
MDL- Lowest level that the equipment is designed to detect for each parameter.

PFAS Groundwater Sample Analytical Summary

	2017 Sampling	2018 Sampling	2019 Sampling	2020 Sampling	2021 Sampling	2022 Sampling
Analytical Method	**Modified EPA Method 537 ***	**Modified EPA Method 537 ***	**Modified EPA Method 537 ****	**Modified EPA Method 537.1****	**Modified EPA Method 537.1****	**Modified EPA Method 537.1****
Parameter	**MDL (ppt)**	**MDL (ppt)**	**MDL (ppt)**	**MDL (ppt)**	**MDL (ppt)**	**MDL (ppt)**
HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)	--	--	0.13 to 0.31	0.2 to 0.25	0.207 to 0.936	0.731 to 0.851
PENTADECAFLUOROOCTANOIC ACID (PFOA)	0.295 to 1.06	0.321 to 3.03	0.12 to 5.36 (†)	0.4 to 68.7(†)	0.426 to 29.6 (†)	0.853 to 0.994
Concentration range (ng/L [ppt])			0.16 to 2,023	0.45 to 1,367	0.494 to 3,260	
PERFLUOROBUTANESULFONIC ACID (PFBS)	0.426 to 1.01	0.882 to 3.03	0.09 to 3.26	0.11 to 0.144	0.12 to 0.937	0.731 to 0.852
PERFLUOROHEXANESULFONIC ACID (PFHXS)	0.399 to 1.09	0.467 to 3.03	0.07 to 12.8	0.09 to 6.25(†)	0.0933 to 23.3 (†)	0.842 to 0.981
Concentration range (ng/L [ppt])			0.11 to 1,483	0.09 to 1,120	0.11 to 3,520	
PERFLUORONONANOIC ACID (PFNA)	0.368 to 4.57 (†)	0.399 to 6.9 (†)	0.22 to 633.53 (†)	0.25 to 216 (†)	0.258 to 35.1(†)	0.704 to 3.89
Concentration range (ng/L [ppt])	0.733 to 3,010	2.43 to 2,350	0.24 to 192,715	0.3 to 34,102	0.302 to 6,230	
PERFLUOROOCTANESULFONIC ACID (PFOS)	0.366 to 1.93	0.389 to 3.03	0.13 to 21.21(†)	0.35 to 125(†)	0.364 to 25.3 (†)	0.904 to 5.05 (†)
Concentration range (ng/L [ppt])			0.17 to 6,560	0.41 to 5,480	0.42 to 3,310	1.48 to 2,930

ppt - parts per trillion; equal to nanograms per liter (ng/L)
HFPO-DA was not available for analysis in 2017 or 2018.
MDL- Lowest level that the equipment is designed to detect for each parameter.
RL- Lowest level that can be reported based on various facotrs including but not limited to condition of equipment and quality of the sample.
† High MDL (above screening levels) is a result of dilution based on high concentrations from groundwater grab or piezometer samples.

EPA Method 537 is a drinking water method. There are no analytical methods available for groundwater. Therefore groundwater was analyzed for:
* PFAS by Modified EPA Method 537 (to meet requirements of Navy Quality Systems Manual [QSM] 5.1, Table B-15)
**PFAS by Modified EPA Method 537 (to meet requirements of QSM 5.3, Table B-15)