NAVAL AIR STATION JOINT RESERVE BASE (NASJRB) WILLOW GROVE
Restoration Advisory Board (RAB) Meeting Minutes

Meeting Date: 17 July 2025
Meeting Time: 6:00 PM
Meeting Place: Horsham Township Community Center, Horsham, PA and online via Microsoft Teams

Attendees:

Name	Organization
Jonathan Harris*	Naval Facilities Engineering Systems Command (NAVFAC) Base Realignment and Closure (BRAC) Program Management Office (PMO) East
Brian Helland	NAVFAC BRAC PMO
Dawn DeFreitas	NAVFAC BRAC PMO
Rachelle Knight(1)	NAVFAC BRAC PMO
Andrew Klappholz(1)	NAVFAC BRAC PMO
James Rugh	NASJRB Willow Grove Caretaker Site Office (CSO)
Martin Schy	NASJRB Willow Grove CSO
Colonel Brian Silver*	Biddle Air National Guard (ANG) Base
Colonel Dan Molina	ANG
Bill Myer	ANG
Lee DePersia	ANG
Keith Freihofer(1)	ANG
Charles Amick	ANG
Margaret Patterson(1)	ANG
Sarah Kloss	U.S. Environmental Protection Agency (EPA) Region 3
Lisa Senior(1)	U.S. Geological Service (USGS)
Colin Wade	Pennsylvania Department of Environmental Protection (PADEP) Southeast Region
Bonnie McClennen(1)	PADEP Southeast Region
William Gildea-Walker*	Horsham Township
Mike Shinton**(1)	Horsham Land Redevelopment Authority (HLRA)
Tom Ames**	HLRA
Dylan Conlon	EA Engineering, Science, and Technology (EA) – Navy Consultant
Cybil Boss(1)	EA
Sue Herbert	Tetra Tech (Consultant to the Navy)
Andrew Ginsberg	Tetra Tech
Stephen Mitchell	Tetra Tech
Coleman Nelson(1)	Tetra Tech
Corrine Ketcham	AECOM (Consultant to Navy)
Devon Rutledge	AECOM

Elliott Martynkiewicz	AECOM
Todd Church(1)	AECOM
Bonnie Mace(1)	AECOM
Eric Barefoot(1)	BB&E (Consultant to ANG)
Joshua LeChette(1)	Gilmore and Associates, Inc.
Laura Restrepo(1)	U.S. Senator John Fetterman's Office
Kathleen Joyce(1)	U.S. House Representative Madeleine Dean's Office
Ashley Conaway(1)	PA House Representative Frank Ferry's Office
Hope Grosse**	Buxmont Coalition for Safer Water
Joanne Stanton**	Buxmont Coalition for Safer Water
Ed Kreibick	Member of the public
Monroy Gabriel	Member of the public
Samantha Slaff	Member of the public
Monroe Gabriel	Member of the public
Theresa Swend	Member of the public
Joseph McGrath	Member of the public
Braden Giammillaro	Member of the public
Theresa Suevo	Member of the public
Zoe Read	Member of the public
Mike Toth	Member of the public
John J.(1)(2)	Member of the public
Zoe(1)(2)	Member of the public
Chuck(1)(2)	Member of the public
Two unknown phone attendees(1)	Members of the public
Tara Wilson	Blum-Moore Reporting Services (Stenographer)

* Restoration Advisory Board (RAB) Co-Chair
** RAB member
(1) Virtual participant
(2) Full names unknown

MEETING OPENING

Mr. Coleman Nelson opened the meeting by greeting attendees and providing a demonstration of the features of Microsoft Teams, the software program used to host the meeting virtually.

Mr. Jonathan Harris introduced himself as the Navy Base Realignment and Closure (BRAC) Environmental Coordinator (BEC) for former Naval Air Station Joint Reserve Base (NASJRB) Willow Grove. He welcomed everyone to the Restoration Advisory Board (RAB) meeting for both former NASJRB Willow Grove and Biddle Air National Guard (ANG) Base and explained that the virtual meeting was not recorded, but minutes would be published. He described that public notices for the meeting had been published prior to the meeting in the local newspaper on July 3, 2025, and on July 10, 2025, and shared the location of the link posted on the Navy BRAC website mailing list (via email) for information and updates about the projects.

Mr. Harris reviewed the meeting agenda, explaining that the Navy would provide an environmental restoration program update for former NASJRB Willow Grove, followed by a presentation focused on surface water and sediment sampling, followed by a period for questions. Biddle Air National Guard would then provide a presentation (followed by time for questions) after which the Environmental Protection Agency (EPA), and Pennsylvania Department of Environmental Protection (PADEP) representatives would provide updates and be available for questions. Mr. Harris said that the Navy presentation is available on the Navy BRAC website for those who could not attend. He shared that online attendees could submit questions during presentations using the virtual meeting chat feature but that they would not be addressed until later during the question-and-answer period.

Mr. Harris explained that the RAB is a group of community stakeholders formed to discuss environmental restoration topics related to property currently or formerly owned by the Department of Defense (DoD). He said that the RAB does not discuss health-related topics, although health agency contact information would be provided at the end of the presentation. He also mentioned that information for an upcoming PFAS multi-site health study would be provided in the evening's presentation.

Mr. Harris introduced the RAB co-chairs, whom he said included Mr. Bill Walker on behalf of the community, Colonel Brian Silver on behalf of the Air National Guard (ANG), and himself on behalf of the Navy. He shared that Colonel Silver had an announcement to make.

Colonel Silver announced that this would be his last RAB meeting. He introduced his replacement, ANG Colonel Daniel Molina, adding that he would be supported by the Base environmental restoration team that remained in place.

Mr. Harris then shared that the RAB holds three meetings each year, typically in March, July, and November. He said that the next two RAB meetings are tentatively scheduled for Thursday, November 13, 2025, and for March 19, 2026.

FORMER NASJRB WILLOW GROVE PRESENTATION

Mr. Harris provided the Navy's environmental restoration program update. He began by providing a summary of the Navy's assessment and response to per- and poly-fluorinated alkyl substances (PFAS) in privately-owned water wells. He reviewed the Pennsylvania maximum contaminant levels (MCLs) established for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) of 14 nanograms per liter (ng/L) (i.e., parts per trillion) and 18 ng/L, respectively, established on January 14, 2023; these are two of the more common reported PFAS compounds. In April 2024, the EPA released their own MCLs for several PFAS, including MCLs of 4 ng/L for PFOA and PFOS, MCLs of 10 ng/L (each) for perfluoroheptane sulfonic acid (PFHxS), perfluorononanoic acid (PFNA), and hexafluoropropylene oxide-dimer acid (HFPO-DA), and a hazard-index-based MCL of 1.0 for mixtures of two or more PFAS that include PFHxS, PFNA, HFPO-DA, and perfluorobutane sulfonic acid (PFBS). He explained that DoD then released a September 2024 policy prioritizing PFAS interim response actions at sites that have groundwater PFAS concentrations equal to three times the EPA MCLs, and directing DoD to address PFAS in drinking water to meet the MCL or background conditions in later remedial actions performed under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

Mr. Harris summarized actions that the Navy has taken to address PFAS in groundwater. The Navy has awarded a $22 million modification to the cooperative agreement with the Horsham

Water and Sewer Authority (HWSA) on September 23, 2023 to provide filtration equipment for five HWSA wells, and to provide municipal water system connections for 100 additional private well owners; public water system connection offer letters were also issued associated with that agreement in November 2023. He presented a map showing the Navy's private well sampling area addressed by the current sampling and analysis plan (SAP), and reported that the Navy has sampled more than 600 well locations for PFAS, and that 450 of those 600 locations are now connected to the municipal water supply. Fifty-seven wells containing PFAS concentrations exceeding three times the EPA MCLs remained to be connected to the municipal water supply, and 19 wells with PFAS concentrations exceeding the MCL (but not three times the MCL, and therefore not exceeding the Navy's criterion) are being tracked. The presentation provided Navy contact information that the residents in the sampling area can use to make appointments for sampling.

Mr. Harris next provided an update on the status of the planned groundwater extraction and treatment system (GWTS) to be constructed at former NASJRB Willow Grove. He described it as an interim action to address PFAS mass in groundwater. The GWTS is a full-scale system developed from information obtained during earlier pilot tests evaluated for the Engineering Evaluation and Cost Analysis (EE/CA). The EE/CA selected the GWTS as an interim action, as presented at earlier RAB meetings. He said that activities performed to date included issuance of the final EE/CA on July 11, 2024; preparation of an Action Memorandum describing the GWTS removal action for which regulatory agency comments are currently being addressed; PADEP's issuance of discharge limits for the system on January 28, 2025; and preparation of the 90% Remedial Design. He said that the start of GWTS construction is expected later in 2025.

Mr. Harris then described other activities that the Navy had performed since the earlier RAB meeting and presented a list of several in-progress SAPs. The Navy has issued the final SAP for the Phase 2 remedial investigation (RI) of off-base groundwater and was responding to regulatory agency comments on the draft final SAP for private wells. The draft SAPs for investigation of the Northern Ponding Area (NPA), supplemental groundwater at Site 12, on-base groundwater for the Phase 2 RI, and the Site 5 bioremediation long-term monitoring (LTM) update are all undergoing regulatory agency review. An updated surface water and sediment SAP, as well as an updated Site 3 and Site 12 LTM SAP, are undergoing Navy review.

Mr. Harris presented additional activities that had been performed, describing that the Navy had issued the final Site 5 year 8 bioremediation LTM report, was preparing the draft Site 5 year 9 bioremediation LTM report for submittal to the regulatory agencies, responded to Horsham Water and Sewer Authority (HWSA) comments on the final preliminary hydrogeology report prepared for Delaware River Basin Commission (DRBC) GWTS coordination, performed unmanned aerial survey (UAS) drone flights to collect thermal imagery of the NPA for groundwater seep and overland flow location confirmation to support SAP development, conducted groundwater sampling at four off-base HWSA observation wells to demonstrate use of Westbay® sampling system for groundwater sampling in discrete subsurface intervals, and issued the *Final Interim Findings Memorandum Addendum for Off-Base HWSA Well Discrete Groundwater Sampling*.

Mr. Harris concluded by describing upcoming actions that the Navy anticipated completing before the next RAB meeting, including continuing interim actions for monitoring off-base private wells and connecting private residences to the municipal water system, completing pending documents including the GWTS action memorandum, the GWTS design, the GWTS construction quality assurance (QA) plan, the 2024 annual drinking water reports, the 2025 site management plan, the Site 5 and Building 177 discrete groundwater sampling memorandum, and the soil pore water

sampling technical memorandum. He said the Navy also expects to respond to regulator comments on several SAPs, as mentioned earlier.

NAVY GROUNDWATER EXTRACTION AND TREATMENT SYSTEM PRESENTATION

Mr. Harris next introduced Dylan Conlon of the EA Wood Joint Venture, a Navy contractor, to present on the engineering design that was prepared for the GWTS.

Mr. Conlon began by sharing context on what the GWTS had been designed to address. He described the multiphase RI activities involving groundwater, surface water, sediment, and soil sampling performed at the Base since 2014. He described the highest concentrations of PFOS and PFOA in the Building 680 and Site 5 areas, and referenced the EE/CA that evaluated response actions leading to the selection of the GWTS as an interim response action that will be finalized in an upcoming action memorandum.

Mr. Conlon described the GWTS design objective, which is to reduce PFAS mass in groundwater. He described the GWTS design as addressing PFAS in groundwater near Building 680 and Site 5, as well as PFAS along Building 177 which is adjacent to the Site 5 area. The GWTS is designed to treat groundwater at a rate of 400 gallons per minute (gpm); groundwater will be extracted from 29 extraction wells and from the Building 80 basement which is inundated with groundwater, so the GWTS was designed with additional capacity to treat up to 500 gpm. The system is designed to treat groundwater to meet PADEP-established discharge criteria. He then referred to figures showing the two areas of focus, the first for Buildings 80 and 680, and the second for Site 5 and Building 177.

Mr. Conlon described previous removal actions, and summarized previous pilot testing results performed by Tetra Tech in the areas mentioned above. The pilot test results had been used to inform the EE/CA which led to the selection of the full-scale GWTS. The EA-Wood Joint Venture has been contracted to design and build the full-scale GWTS. He then presented a graphic showing the status of the project within the CERCLA regulatory framework, moving from the previous EE/CA phase to the current action memorandum and design phase and towards the removal action.

Mr. Conlon described that the three high-level design components evaluated during the EE/CA that were carried forward to the GWTS design. These included: 1) the groundwater treatment method to be used, 2) the treatment system and equipment location requirements, and 3) the treated groundwater discharge location. He described that multiple alternatives were evaluated during the EE/CA for these major design components. The selected groundwater treatment alternative will use granular activated carbon (GAC) and single-use ion exchange (IX) resin to remove PFAS and other chemicals. The system will include a single groundwater treatment system building that will be constructed in the north ramp area, and construction of one manifold building at Site 5. Treated groundwater will be discharged to Park Creek via a new gravity sewer piping system.

Mr. Conlon then provided an overview of the GWTS design, showing several figures including a general site layout, details of the Building 680 and Site 5 well fields, a map showing the Site 5 manifold building location, and a map showing the treated groundwater discharge pipeline leading to Park Creek. Using these figures, he identified locations of the groundwater extraction well fields at Building 680 and Site 5, the locations of the GWTS building (at Building 680) and manifold building (at Site 5), the locations of piping to be installed between the extraction wells and the buildings, and the location of the discharge pipeline that will direct treated groundwater to

Park Creek. He described that the system will collect groundwater at the well heads, direct it to the manifold building (for Site 5 area) or to the treatment building (Building 680 area) using 1.5-inch to 2.0-inch diameter piping (depending on the pumping rates anticipated), and that flow from the Site 5 area would be combined in the manifold building and directed to the GWTS building for treatment. Treated water would then flow through a standard 10-inch-diameter gravity sewer to Park Creek, where it would discharge via a precast discharge structure and conveyance channel.

Mr. Conlon then shared more detail for each of the GWTS design components described above, beginning with the treated groundwater discharge. The discharge line directs treated effluent via gravity to a sewer line where it flows to the northwestern side of the base, where the pipe crosses beneath Keith Valley Road and ultimately discharges into Park Creek. GWTS-treated water is discharged first through an above-ground structure with a slotted weir opening that controls flow, then transitions into a conveyance channel to flow to Park Creek. The system has a float switch at the outlet that will trigger the GWTS to cease operation during flooding conditions.

Mr. Conlon then shared more detail about the groundwater treatment system design. Pre-treatment of groundwater influent will occur first using multi-media filters filled with a mix of crushed rock, garnet sand, and anthracite to remove particles of 10 microns or larger in size. Three bag filters with 5 micron filters would then further reduce fine particles in the influent, which would then be treated using GAC and single-use resin, as described earlier. Coconut-fiber GAC will be used to remove volatile organic compounds and provide initial removal of some PFAS, but removal of most of the PFAS occurs via single-use IX resin. Following treatment via resin, water is polished using coal-based GAC at the end of the process; this final step would also help remove any PFAS breakthrough experienced in the earlier treatment stages.

Mr. Conlon said that the system is designed with two, identical treatment trains using the process described above, and presented a flow-through diagram of groundwater treatment system, showing that influent groundwater will be collected in an equalization tank as it enters the treatment building. Water from the tank is then pumped through the multimedia filters described above, which are positioned as two parallel treatment trains. Within each treatment train, two multimedia filters are positioned in parallel, followed by two bag filters in series, followed by two pretreatment GAC in series, followed by the IX vessels, and then the final polishing GAC vessel. The treated water will then be collected in a holding tank and discharged to Park Creek under gravity flow conditions.

Mr. Conlon further described the Building 680 and Site 5 extraction well fields and their connection to the treatment system building. The Building 680 extraction well field will pump groundwater directly to the treatment system building. Extraction wells in the Site 5 well field will pump groundwater to the Site 5 manifold building, where the piping from each extraction well will be combined, then that combined groundwater will flow through 6-inch-diameter polyvinyl chloride (PVC) pipe via gravity to the treatment system building. The main treatment system building and the Site 5 manifold building will be pre-engineered steel buildings delivered to the site and constructed onsite over concrete pads.

Mr. Conlon then presented GWTS control details. The GWTS can be monitored from within the treatment building and remotely. Water level sensors and switches in the wells, in the tanks, and at the effluent outfall, as well as flow and pressure transmitters installed in the piping, will be used to continuously monitor system performance. Programmable logic controller devices will be used to interpret system data and automatically control the speed and activation of pumps and other equipment in response to changes in groundwater depth in the wells, flow rate, and pressure. The

system will adjust itself (e.g., turn off pumps, speed up or slow pumps, etc.) based on the information gathered. A supervisory control and data acquisition (SCADA) computer interface, located in the treatment system building, will allow operators to monitor and control the system.

Mr. Conlon described the waste management that will be required for interim action. During construction, on-site soil generated from excavation will be managed as if it contains PFAS; therefore, it will be used as backfill only in its original source location, and not be reused elsewhere. Excavated soil associated with trenching will be temporarily stockpiled alongside trenches, then used to backfill the trench to the extent practical to minimize the amount of soil disposal. No surplus soil is expected to be generated between the buildings or for the effluent discharge run. Concrete waste will be stockpiled on-site at a location identified by the Navy. Asphalt waste will be recycled to the extent feasible. Water from construction dewatering and investigation derived waste (IDW), which also may contain PFAS, will be treated on-site using the former Site 5 pilot treatment system.

Mr. Conlon indicated that most work will take place on former NASJRB Willow Grove property and that the construction entrance will be through the existing gate near the corner of Maple Avenue and Horsham Road. Electric and natural gas services for the manifold building will be provided from PECO Energy Company from Horsham Road. Utilities for the GWTS building include domestic water, natural gas services, sewer service, and stormwater conveyances which will be tied into existing systems at the adjacent Biddle ANG base. He said that the GWTS treated effluent discharge line crossing beneath Keith Valley Road will require coordination with the Horsham Township. Keith Valley Road will remain open during construction.

Mr. Conlon concluded by summarizing the project status, indicating that: 1) the DRBC approved the Navy's preliminary hydrogeologic report describing a 72-hour pump test to be completed upon GWTS construction and startup, 2) action memorandum comments are being addressed by the Navy, 3) the GWTS 90% engineering design was completed and was undergoing regulatory agency review, 4) bid solicitation was in progress, and construction would likely mobilize in late fall 2025, 5) construction would likely be completed by fall 2026, and 6) EA Wood anticipated conducting initial operations and maintenance in fall 2027.

Mr. Harris thanked EA Wood for the technical presentation. He reminded meeting participants that current and past meeting materials, including presentations, are available on the Navy BRAC website. He also described that an email list server is available if anyone wanted to receive updates or advanced copies of agendas and meeting minutes.

RAB MEMBER AND COMMUNITY QUESTIONS/COMMENTS

Mr. Harris opened the floor for questions, after which Mr. Nelson provided virtual attendees with a brief introduction on how they could ask questions.

Ms. Samantha Slaff introduced herself as a RAB member. The following questions and answers pertaining to the interim removal action for PFAS in groundwater and the GWTS were discussed:

- Response action levels for PFAS in groundwater were discussed. Ms. Slaff asked if private wells with PFAS levels between the EPA MCL and three times the MCL will receive public water system connection offers. Mr. Harris answered that three times the EPA MCL is the current trigger level used by DoD for interim removal actions, so that the 'worst cases' are dealt with first. He described the current action as being a short-term initial and interim

step; locations with MCL exceedances will be addressed to the EPA MCL or background during the remedial action phase later in the CERCLA process. Ms. Slaff asked if there are wells below the limit. Mr. Harris replied that there are locations with PFAS concentrations below the EPA MCL.

- Re-testing of private wells was also discussed. Ms. Slaff asked if wells are retested and if so, how many times, given that results could change based on groundwater conditions or other factors. Mr. Harris replied that, right now, the Navy is finalizing its SAP for drinking water sampling, and that any ongoing monitoring for locations that do not exceed action levels will be identified in that plan once finalized.
- GWTS operation was discussed. Ms. Slaff asked if the GWTS is intended to be there 'forever?' Mr. Conlon said that the system's duration of use depends on its efficacy, indicating that the amount of time it will be in place has not been determined. He added that monitoring will occur for the life of the system. Mr. Helland shared that he anticipates the GWTS would run for 30 years or longer to attain plume cleanup. Ms. Slaff asked if the Navy would continue to operate the system, or if it would be turned over to the township to manage or pay for? Mr. Helland replied that the Navy would budget for and operate the system.
- The GWTS capacity was discussed. Ms. Slaff asked if the 400-gpm capacity proposed for the system is enough to keep the groundwater from 'spreading out.' Mr. Helland explained that the purpose of the interim system is to reduce PFAS mass in high concentration areas, and that the system sizing required to contain the plume will be determined during the ongoing RI and future feasibility study (FS).
- The timeline for remedial action was discussed. Ms. Slaff asked for the timeline of the plan mentioned above. Mr. Harris explained that the Navy is currently in RI Phase 2, but, with PFAS being an evolving issue, identifying end dates is difficult; however, construction of the remedy and subsequent treatment of groundwater are expected to require years.
- Required resources were discussed. Ms. Slaff asked if additional resources would be added if the system needed to be increased. Mr. Harris referred to the earlier discussion, indicating the current work to be an interim action, not a final remedy; additional pumping capacity for the final remedy would be applied if found necessary.

Ms. Joanne Stanton introduced herself as being with the Buxmont Coalition for Safer Water and a RAB member. The following questions and answers pertaining to the interim response actions and GWTS discharge authorization were discussed:

- Interim response actions were discussed. Ms. Stanton said that the parameters for private well sampling have been evolving and asked what the status is now. She pointed out that, at one point, the Navy was providing bottled water as a temporary solution, but then residents had to apply for a waiver for that, so they were contemplating home filtration systems as a temporary fix. She asked what the Navy had settled upon. Mr. Harris indicated that interim temporary water is meant to cut off exposure until connections to the public water system are completed. He said that for the Willow Grove sampling area, previously sampled locations meeting the Navy criterion have been set up with bottled water. He said that any new locations would require the waiver, which had not been

approved, to receive bottled water, but that this should not be an issue for this sampling area given the results. Ms. Stanton asked how long it would take to finalize the DoD waiver to provide bottled water. Mr. Harris said that he does not know a date but understands it should be in the very near future.

- The GWTS discharge authorization was discussed. Ms. Stanton, responding to Mr. Conlon's presentation, asked if PADEP could share the level set for PFAS. Mr. Colin Wade indicated that PADEP had established limits for several chemicals, including PFAS and other contaminants, but did not know the specific PFAS criteria used for this discharge authorization. He said that the discharge limits are public record and that he would be happy to send Ms. Stanton a copy.

Mr. Harris asked local meeting attendees if there were any additional questions. Not seeing any, he asked Mr. Nelson if the virtual attendees had any questions. Mr. Nelson reported that he had received one question via the meeting's online chat feature.

Mr. Mike Toth, using the chat feature, pointed out that the area had experienced frequent power outages. He asked what the plan was for power backup and/or redundancy, and if the system would be able to run during an outage? Mr. Conlon explained that the GWTS and its associated buildings were designed with emergency generators that should provide power to keep minor equipment online and keep piping from freezing. He said that the system is designed to experience intermittent periods where it turns itself off, such as in the event of flooding, but that the short durations, such as a short-term power outage, should have minimal impact on the system.

Mr. Harris asked Mr. Nelson if there were any other questions from virtual meeting participants. Mr. Nelson reported that no other questions had been received.

BIDDLE ANG ENVIRONMENTAL RESTORATION PRESENTATION

Mr. Harris introduced Bill Myer from the Air National Guard (ANG) who would present on Biddle ANG environmental program activities. Mr. Myer identified himself as the Restoration Program Manager for Biddle ANG and introduced Lee dePersia, the environmental manager for Biddle.

Mr. Myer began the presentation by describing that the Biddle ANG has continued to coordinate with the EPA and PADEP on the draft action memoranda for surface water and drinking water response actions. He indicated that ANG is working to transition from performing site-related activities under the Safe Drinking Water Act to the Navy's Federal Facilities Agreement (FFA) for which there was an amendment. ANG is now engaging with the Office of General Counsel for Air Force and Navy for this and is working to coordinate issues such as applicable or relevant and appropriate requirements (ARARs) to transition to the FFA. He described that the action memoranda will be made available for public review once they are complete.

Mr. Myer described ANG progress on the PFAS RI. He shared that ANG had received comments from EPA and PADEP and was now preparing to submit the final report for the PFAS RI. Any on-base work that remains will be addressed as part of Phase 2 RI, as the contract available for the Phase 1 RI has now run its course. The PFAS RI report is available to RAB members.

Mr. Myer indicated that Biddle ANG had submitted the community involvement plan (CIP) for the RI. He shared that the ANG communicates in a variety of ways, such as through public meetings or letters. He described the CIP as the Commander's tool for communicating about

restoration activities at the Base. The CIP will also be available to RAB members and to the public for input on how they prefer to participate in or receive communications.

Mr. Myer indicated that interim groundwater actions are currently in progress, and that ANG had submitted the final EE/CA for the non-time-critical removal action following legal review, and was also planning to submit the draft final action memorandum to document the selected groundwater extraction and treatment approach. The U.S. Army Corps of Engineers (USACE) Philadelphia District was planning to award a contract for the interim groundwater action, with late July 2025 as a target. ANG is following the same steps as the Navy did for their GWTS, with the Navy now finishing their design while ANG is just starting theirs.

Mr. Lee dePersia introduced himself as the environmental manager at Biddle, indicating that he would provide an update on ANG's cooperative agreements with Warminster Municipal Authority and North Wales Water Authority, as well as provide an update for the surface water treatment plan. PFAS-impacted surface water is discharging from the base and could affect downstream drinking water supplies. He described how the consent or the administrative order through the Safe Drinking Water Act included a provision for Biddle to address the discharge of PFAS-impacted surface water from the base. He provided historical information about the temporary systems ANG had used to treat surface water for the first several years. ANG constructed a full-scale treatment system through a cooperative agreement with Warminster Municipal Authority in 2021. The treatment plant began operation on August 15, 2021, about four years ago. ANG has treated about 426 million gallons of surface water as of June 2025.

Mr. dePersia shared that ANG collects monthly discharge samples required by a National Pollutant Discharge Elimination System (NPDES) permit and that 47 samples have been collected to date. PFOS results are typically reported as not detected or near the detection limit of 2 parts per trillion. ANG is only required to sample for PFOA and PFOS, but does analyze samples for a broader range of PFAS, but other PFAS are reported as nondetect. One exception occurred when higher levels of PFOS (above the discharge limit) were reported; those exceedances are believed to be due to an algae bloom in the basin that caused treatment system problems. The system uses two treatment trains, with four vessels per treatment train, and treatment media were replaced during the algae bloom. He said that treatment media is generally changed out once per year, and that media from the first train was last replaced on May 6, 2025, while media for the second train was replaced in July 2025. Overall, the treatment system has successfully operated over time.

Mr. dePersia indicated that flow volume, or flow rate, tends to be the main issue with the system. Although the system is rated to treat 500 gpm, the system is operating at only 380 to 400 gpm. This system treats surface water that contains solids and debris (unlike groundwater), and although ANG attempts to remove these solids, the flow rate is affected. ANG is considering using larger vessels of resin as a result and may make that change this year to increase the treatment rate and to reduce algae growth. Construction, operation, and maintenance of the plant is performed through a cooperative agreement with Warminster Municipal Authority, and ANG is working on a modification for that cooperative agreement for another year of operation and maintenance.

Mr. dePersia indicated that influent and effluent samples are collected from each treatment train of the surface water treatment system twice per month, in addition to the required monthly NPDES sample collection. Overall, a gradual decrease in influent concentrations has been observed over the past four years. A chart showing plotted influent data for the last four years was shown, noting that although the system is called a surface water treatment plant, it is also treating groundwater that enters into the drainage basin and ditches on the base that lead to the basin. This observation

can be noted on the PFAS data trend plots; when the drainage basin is fairly empty during periods of little precipitation, the system primarily treats groundwater, which is indicated by the higher PFAS concentrations observed on the chart. However, during periods of greater rainfall and more overland surface water flow, PFAS concentrations tend to be lower due to higher dilution from rainfall. In other words, the peaks shown in the data relate to periods of dry weather and the valleys correlate with periods of wet weather, and the largest drops generally occur during rainfall events of 2 inches or more. Overall, since 2021, average PFOS influent concentrations have decreased from 3,500 parts per trillion to around 1,000 parts per trillion. He acknowledged that treatment still needs to continue but noted that the decreasing PFAS concentration trend seen in the chart is heading in the right direction.

Mr. dePersia shared that ANG also has a cooperative agreement with North Wales Water Authority, and ANG has funded construction of PFAS treatment units for five of the North Wales Water Authority wells based on that agreement. ANG is also providing funding for operation and maintenance of those five wells. ANG is currently working on a modification to the agreement to add another year of operation and maintenance for those wells. ANG also provided funds for water main extensions and residential well connections to the public water system for properties that qualify for such a connection based on the latest DoD guidance.

Mr. Myer next discussed private well sampling in Biddle ANG's area of responsibility north and northeast of the base; well sampling is currently conducted by their contractor, Verina-Pars Joint Venture. ANG is following DoD guidance (using three times the EPA MCL) as the current project action level, as shared with participants of earlier RAB meetings. Although EPA is talking about rescinding the MCL and hazard index approach for some PFAS compounds due to related uncertainties, ANG continues to comply with current standards. Mr. Myer showed a map of the sampling area and latest reported PFAS detections. Mr. Eric White of Verina-Pars was identified as a point of contact, and his contact information was provided. Mr. Myer encouraged anyone needing a private well sampled within the ANG area of sampling responsibility to reach out to Mr. White to sample their well.

Mr. Myer then introduced Ms. Margaret Patterson who would be continuing the presentation.

Ms. Patterson introduced herself as the remedial project manager working for the reserves, then gave a summary of a petroleum lubricants spill project that she had been engaged on since 2016; this work is being conducted with PADEP and others. She also described a former jet fuel spill in the 1970s, for which the selected remedy initially was biosparging, then injections of persulfate and Epsom salt as a final step. Both groundwater and 175-tons of petroleum-impacted soil were addressed, along with dismantlement of the petroleum tank system in a concrete area having piping. Confirmation sampling for this project was performed by Verina-PARS Joint Venture in fall 2023 to support closure. Montrose Environmental Group is now conducting further groundwater monitoring and site cleanup activities, with site closure expected in the late summer 2026. Ms. Patterson included her contact information on a slide for those with questions.

Mr. Myer thanked Ms. Patterson. He then introduced Ms. Cybil Boss.

Ms. Boss introduced herself as being with EA Engineering, Science and Technology, then presented information about a PFAS due diligence project she was conducting for the ANG which is a project for supplemental sources of PFAS (i.e., PFAS sources not associated with aqueous film forming foam [AFFF]).

Ms. Boss said that EA is working for USACE, who is supporting ANG with identifying where AFFF and non-AFFF PFAS sources were used at ANG and if there were potential or documented releases. EA is completing a historical records review, which involves a search of online administrative records. Personnel interviews of anyone with knowledge of site activities that may have included AFFF sources are being conducted. This information is being used to evaluate the potential for a PFAS release to have occurred. The results will be presented in a due diligence report that summarizes the information obtained and provides recommendations for further (or no further) investigation. While this report is referred to as a due diligence report, it functions as a preliminary assessment (PA).

Ms. Boss indicated that EA has identified and researched over 115 shops and buildings within the Biddle installation footprint. Over 350 documents were researched in the administrative record, including documents used for decision making. Mr. Myer, who is the current ANG restoration program manager was also interviewed.

Ms. Boss reiterated that the focus of the due diligence effort was on finding shops or processes that potentially used PFAS products (but not AFFF) and to determine if there were documented or potential releases at those locations. She then showed a table listing Biddle buildings and shops along with the chemicals commonly used within them. The table was included in the project's work plan and an updated version of it will be included in the due diligence report. She used the Building 227 paint shop (from the table) as an example of a non-AFFF-using shop or process using materials (e.g., paints and solvents) that potentially contain PFAS. She also showed the references used during the investigation, which were cited at the bottom of the table.

Ms. Boss said that the due diligence report was currently being prepared as an internal draft, and that the goal of presenting their progress at this meeting was to inform the public about the project, and to identify other prospective interviewees that may have knowledge of the historical use of (non-AFFF) PFAS at Biddle. She requested that anyone with direct knowledge of PFAS use at Biddle, or anyone who may know of someone with that knowledge, to contact Mr. Myer, and then shared his contact information on the last presentation slide.

Mr. Myer concluded the Biddle ANG presentation and engaged the audience for questions.

RAB MEMBER AND COMMUNITY QUESTIONS/COMMENTS

Mr. Nelson invited the audience to offer questions either verbally by going to the podium or using the meeting's online chat feature.

Mr. Joseph McGrath introduced himself as a resident of Hatboro and as a former employee of the Air Force Reserves and his questions about the GWTS discharges were discussed, as follows:

- Mr. McGrath asked the Navy if the effluent for former NASJRB Willow Grove GWTS to be discharged to Park Creek is 400 gallons per minute. Mr. Conlon confirmed that it is. Mr. McGrath asked ANG if the GWTS effluent for their system is 85 gpm. Mr. Myer indicated that it is 85 gpm.
- Mr. McGrath shared that, while he does not live in that area, flooding is already a problem. He asked what would happen to the excess water during flooding if it is not discharged by the system. Mr. Myer indicated that the system stops discharging water if the pumps are turned off. Mr. McGrath indicated that flooding is already a problem if the road needs to be shut down, and observed that, if the system pumps are shut off, the water has to go

somewhere. Mr. Myer replied that if the system stops extracting groundwater due to flooding, the system will not be generating discharge water because the system is only producing water if it is pumping. Mr. McGrath asked if that means the water stays stagnant. Mr. Myer said yes, until the system is turned back on and explained further by giving an example from another ANG installation. Mr. McGrath said that he thought the pump was just to get the water off the base. Mr. Myer said that pumping extracts groundwater like a drinking water well, and added that the system pulls the groundwater in, treats it, then discharges it. If the GWTS is not running, no discharge will occur.

- Ms. Sarah Kloss added that the Navy did an analysis of their discharge compared to the flow in Park Creek, and it was much lower, so they do not anticipate that these discharge rates would have negative impacts to Park Creek, but they are aware that periodic flooding occurs along Park Creek. This flooding is accounted for when designing the system, but does not necessarily occur from treatment plant discharge into Park Creek.

Mr. McGrath, a community participant at the meeting, offered questions and insights about the PFAS due diligence assessment, as follows:

- Mr. McGrath asked about contacting former Base employees for the due diligence study, indicating he was interested to see who was contacted. He expressed that it was important to talk with the 'boots on the ground' people and offered personal insights on past AFFF use in shops and at hangars.
- Mr. Myer indicated that the point of contact for interviews was available and encouraged Mr. McGrath to contact her if he had information to share.
- Ms. Boss offered that if Mr. McGrath is willing to provide his contact information, she would follow up with him after the meeting.

Ms. Grosse introduced herself as being with the Buxmont Coalition and asked questions pertaining to the private well-sampling efforts, as follows:

- The location of the ANG stormwater retention basin was discussed. Ms. Grosse asked where the basin was located. Mr. Myer clarified that it is a surface water retention basin, and Mr. DePersia added that the basin is shown on a separate NPDES map for the entire installation, and is located in ANG's northern extent.

Mr. Myer engaged the local audience for any further questions. Seeing none, he asked Mr. Nelson if there were any questions from virtual meeting participants. Mr. Nelson repeated the instructions for submitting questions and indicated one audience member, Ms. Joyce, had asked a question.

Ms. Kathleen Joyce, using the meeting chat feature, asked if the ANG could summarize what changes will take place once they switch to the Federal Facilities Agreement. Mr. Myer acknowledged that they will, at some point, be transitioning from a Safe Drinking Water Act administrative order to the Federal Facilities Agreement, under which ANG will follow the same rules as the Navy is under at the adjoining former base. He described management requirements including providing a report, schedule, and budget. He said that ANG will continue to work with regulators.

Ms. Joyce, using the chat feature, if MCLs would change. Mr. Myer indicated that the same MCLs would be used and that they would be the same as those used by the Navy.

Mr. Nelson indicated that there were no further questions from virtual meeting attendees.

REGULATOR COMMENTS

Mr. Myer offered the floor to the regulatory agencies present for comments.

Ms. Kloss introduced herself as EPA's remedial project manager. She commented on earlier discussion of EPA PFAS MCLs, saying that if an MCL is issued as a final regulation then it stands until there is a formal process to change that. She said that her program is using the current PFAS MCLs until changes are made

Ms. Kloss acknowledged the meeting presentations, commenting on how successful the Navy's and ANG's GWTS systems are, and that even though it might not get to the final cleanup everyone wants, these are big and successful interim steps. Implementation of these systems should help with some of the private well issues as well as surface water conditions discussed in the previous RAB meeting.

Ms. Kloss followed up on a question from the previous March 2025 RAB meeting about how the surface water criteria were generated for a surface water and sediment presentation. She described that EPA uses screening criteria during investigations to help understand the extent of a problem and that the presenters had discussed using EPA's September 2023 regional screening levels (RSLs) as guidelines. EPA supports an RSL calculator, which helps the agency establish screening levels for chemicals by using the latest chemical toxicity information, exposure frequencies, and other factors such as standard ingestion rates and an exposure of 3 hours per event at a frequency of 52 days per year for an adult and child. EPA updates its RSLs every six months, so more recent values are now available. She emphasized that the RSLs are not site-specific cleanup values but would be continue to be used to help assess site conditions until a risk assessment is performed and decisions on the need for any actions take place.

Ms. Kloss also reported that their Technical Assistance Needs Assessment (TANA) team from the previous RAB meeting had conducted nine interviews within the community so far. She encouraged meeting participants to reach out to her if they were interested in being interviewed by the TANA team, and provided input on RAB meeting information sharing, or getting EPA assistance with other communication needs.

Mr. Colin Wade introduced Ms. Bonnie McLennan and himself as working with the PADEP. He indicated they did not have any specific comments regarding the meeting presentations and offered to take questions.

Ms. Kloss engaged the audience to see if there were any questions.

RAB MEMBER AND COMMUNITY QUESTIONS/COMMENTS

Mr. Tom Ames took a moment to recognize the Navy's remedial project manager, Brian Helland, who would be retiring soon. He acknowledged Brian for being one of the longest serving members of the project team, recognized him for being a key member of that team, and thanked him for the work he has done to benefit the community and the remedial actions discussed during the meeting.

Mr. McGrath shared information that two actions previously before the 118th Congress, which he identified as House Rule 4249 and House Rule 3639, addressed PFAS for veterans. He described the first being related to protections for firefighting and the second being related to the compounds themselves. He said that House Rule 3696 has been updated to be House Rule 4249 in the 119th Congress. He shared that he believed these bills may help address health effects for veterans.

Mr. Nelson re-engaged meeting attendees for questions and refreshed participants on how to use the virtual meeting's chat features for questions. He reported receiving no further online questions.

MEETING CONCLUSION

Mr. Harris, mirroring Mr. Ames' earlier comments, also recognized Brian Helland from the Navy for his service to the team, thanking him for his many years of work. He announced that the Navy had begun to integrate a new remedial project manager, Andrew Klappholz, who would step into Mr. Helland's role upon his retirement.

Mr. Harris also announced that Navy contractor Resolution Consultants would be taking on RAB meeting coordination duties next. He thanked Navy contractor Tetra Tech for their work organizing and facilitating RAB meetings over the past several years.

Mr. Harris concluded the meeting by sharing that the anticipated date for the next RAB meeting was November 13, 2025, at 6 PM. He reminded attendees that the meeting presentation is available on the Navy's public webpage, which also includes contact information for the Navy as well as health professionals at the Pennsylvania Department of Health and RTI International. He thanked the presenters, RAB members, and other attendees for their participation. The meeting was concluded at 7:48 PM.