



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

Meeting Date: March 10, 2022

Meeting Time: 6:00 p.m.

Meeting Place: WebEx Webinar

	<u>Name</u>	<u>Organization</u>
Panelist	Dawn DeFreitas (R)	Department of Navy (Navy) Base Closure and Realignment (BRAC) Program Management Office (PMO)
	Willington Lin (R)	Navy BRAC PMO
	Brian Helland (R)	Navy BRAC PMO
	Dave Barclift	Navy BRAC PMO
	Greg Preston	Navy BRAC PMO
	Jason Speicher	NAVFAC Atlantic
	Tricia Moore	Tetra Tech (Consultant to the Navy)
	Bill Myer	Air National Guard (ANG)
	Lee dePersia	ANG
	Elaine Magdinec	ANG
	Keith Freihofer	ANG
	Matt Machusick	Leidos (Consultant to ANG)
	Timothy Runkle	Leidos
	Sarah Kloss	Environmental Protection Agency (EPA) Region 3
	Nathan Doyle	EPA Region 3
	Leah Zedella	EPA Region 3
	Lisa Trakis	EPA Region 3
	Kathy Davies	EPA Region 3
	Colin Wade (R)	Pennsylvania Department of Environmental Protection (PADEP) Southeast
	Thomas Magge	PADEP Southeast
	Lora Werner	Agency for Toxic Substances and Disease Registry (ATSDR) Region 3
	Tricia Moore	Tetra Tech
	Dustin Lipik	Tetra Tech
	Jackie Boltz	Tetra Tech
	Torre Lynn Adams	Blum-Moore Reporting Services
Attendees	Tina O'Rourke	Horsham Water and Sewer Authority
	Thomas Ames	HLRA
	Jonathan Harris	Navy BRAC PMO
	Joseph McGrath (R)	Member of the public and former employee

<u>Name</u>	<u>Organization</u>
Tim Cherry	PADEP Southeast
Shea Bauersmith	Pennsylvania Representative Stephens' Office
Kathleen Joyce	Representative Dean's Office
Sean O'Connor	Pennsylvania Representative Schroeder's Office
Jim Rugh	Willow Grove Navy Caretaker Site Office
Martin Schy	Willow Grove Navy Caretaker Site Office
Mary Walther	Member of the public
John Kelly	Member of the public

(R) Designates RAB Member

Dawn DeFreitas, the BRAC Environmental Coordinator, opened the virtual meeting by greeting the attendees. Ms. DeFreitas explained that the Horsham Library's regular meeting location was unavailable due to the COVID-19 social distancing requirements. The meeting was initially scheduled for March 9th, but it was rescheduled at the request of Horsham Township to deconflict with scheduled Township meetings. Future RAB meetings will be coordinated with Township meetings. Ms. DeFreitas noted that the meeting would include presentations from the Navy, ANG, and PADEP. RAB meeting notices were published in the newspaper on February 23 and March 3, 2022, posted to the Navy website, and mailed to the mailing list. For those unable to attend the meeting, an opportunity to download the presentations and have a copy sent by mail was provided.

Ms. DeFreitas informed the attendees that questions could be submitted via WebEx during the meeting. Ms. DeFreitas explained that questions would be answered at the end of each presentation by the presenters. Ms. DeFreitas also noted that the ATSDR is available after the RAB meeting to discuss health concerns. Ms. DeFreitas introduced RAB members and government representatives known to be present on the call. Ms. DeFreitas added that participants in the meetings should be able to see all the attendees on Webex, as requested in community feedback from the previous meeting.

A brief overview of WebEx features was presented to the attendees to explain the commenting process during the presentations.

Ms. DeFreitas briefly discuss the purpose and background of the RAB. Ms. DeFreitas mentioned that the community co-chair position is vacant. Anyone interested in filling this position could reach out to her for additional information. The dates for the 2022 RAB meeting were shown. The next RAB meeting will be held on Thursday, May 19, 2022. The remaining dates for 2022 are September 15, 2022 and December 8, 2022. The meetings have been moved from Wednesdays to Thursdays to accommodate the Horsham Township meetings.

Brian Helland commenced the Navy presentation with an update on the cleanup sites, including landfill Sites 3 and 12 and Site 5 Former Fire Training Area. Mr. Helland provided background on Sites 3 and 12, stating that they were former landfills used by the Public Works Department. The Site 3 Record of Decision (ROD) was finalized in September 2021. The selected remedy included limited soil and sediment removal, on-site consolidation, construction of a landfill cover,

land use controls, and long-term monitoring. No remedial action for groundwater was determined to be necessary at Site 3. The Site 12 ROD was finalized in October 2021. The selected remedy included limited soil and sediment removal, on-site consolidation, construction of a landfill cover, land use controls, and long-term monitoring. The additional groundwater sampling that EPA requested for Site 12 was completed in July 2021. The results are presented in a technical memo submitted to regulators in March 2022. An evaluation if a groundwater remedy is needed at Site 12 is still underway. The work plan and sampling and analysis plan (SAP) for Site 3 and Site 12 were finalized in February 2022. Site clearing began in early February 2022, and construction of the landfill cap began in late February 2022.

Mr. Helland discussed the remediation for Site 5 groundwater. The anaerobic bioremediation system continues to operate at Site 5, and performance monitoring is being conducted in accordance with the approved plan. Sampling results continue to show that the breakdown of volatile organic compounds (VOCs) is occurring. Therefore, amendments will now be injected twice per year instead of annually as was done before to improve performance. The 2021 annual report is undergoing internal review, and the last quarterly monitoring event was completed in January 2022. The next quarterly monitoring event and the land use control inspection are scheduled for May 2022

Willington Lin began the presentation for the next agenda item, per- and polyfluoroalkyl substances (PFAS). Mr. Lin provided a summary of the Navy's private well sampling activities. As of March 2022, 593 private wells have been sampled, 103 private wells had results above the lifetime health advisory levels, and 49 wells are still being monitored.

Tricia Moore discussed the remedial investigation (RI) for PFAS. The eleventh round of surface water sampling was scheduled to be performed later in March 2022. Round 8 of the sampling occurred in June 2021, and the figures are currently being reviewed by the USGS at the time of the meeting. The figures from the ninth round of sampling that occurred in September 2021 are currently in internal review. The figures from the tenth round of sampling that occurred in December 2021 are being generated. The sampling was performed in conjunction with the USGS, and the local water purveyors were invited to participate. Since the last RAB meeting, finalized technical memos for Round 5, Round 6, and Round 7 were submitted in February 2022, and the results will be posted to the Navy BRAC PMO website once the documents are processed. The Draft Final 2019-2020 Annual Report and field task modification request (FTMR) to the SAP are in the process of addressing regulatory comments.

Ms. Moore provided an update on the off-base groundwater investigation and evaluation of existing off-base monitoring and production wells. Horsham Water and Sewer Authority (HWSA) has offered access to 15 existing observation and supply wells. Work was initiated in August 2020 and included geophysical logging and packer testing. Geophysical logging has been conducted at 13 well locations to date. Packer testing has been performed at 12 well locations. PADEP has also offered access to nine existing monitoring wells, and it is planned to sample those wells in the Spring of 2022.

Additionally, a draft final sampling and analysis plan for on-base soil was submitted for regulatory review in April 2021. The draft SAP for on-base groundwater sampling was submitted for

regulatory review in July 2021. Following the resolution of the response to comments, the document is now being finalized.

Ms. Moore gave an overview of the on-base soil and VOCs investigation at Site 5, Building 177, Site 7, Building 80, Building 680, Building 681, Northern Ponding Area, Building 175, Building 183, Building 13, and the 1979 Aircraft On-Base Incident Area. The draft final SAP was submitted 15 to EPA on March 18, 2021. Conditional approval to begin work at all areas except the Northern Ponded Area was granted in December 2021. 164 soil borings and over 750 PFAS samples were completed between January and February 2022. A limited investigation for VOCs was also completed within Site 5. The work in the Northern Ponding Area is planned for Spring 2022

Dustin Lipik discussed the pilot test for groundwater treatment in the aircraft maintenance facility area around Hangar 680, where the highest PFAS levels were identified. On March 2, 2020, the system was placed online. All effluent results have met all the discharge requirements issued by the PADEP. Approval to extend the pilot test for another six months was granted by PADEP in January 2022. A request to modify the system by adding an extra extraction well was granted by the PADEP and placed online in November 2021. The well was subsequently taken offline to troubleshoot communication and electrical issues, and troubleshooting is ongoing. A summarized layout and trend charts of the pilot test were reviewed.

Mr. Lipik summarized the aqueous investigation-derived waste (IDW) groundwater treatment system. The IDW will now be treated on-site instead of sending the waste off-site for treatment as a cost-saving measure. The water discharged by this system will fall under the same permit equivalency as Hangar 680. The system was installed in September 2021. Following PADEP approval in November 2021, it was started in December 2021. It is anticipated that the treatment of the existing stored IDW will be completed by April 2022, and this system will be utilized to treat aqueous IDW during future remedial investigation activities.

Ms. Moore discussed the Site 5 pilot test for PFAS treatment. The wells and treatment cannot interfere with the existing in-situ bio-stimulation treatment system for VOCs. Lessons learned from the Hangar 680 pilot test will be applied. The final work plan was submitted to the regulators in September 2021. Construction of the system started in October 2021 and was completed in November. The discharge permit was effective as of February 2021 and is valid for five years. Confirmation sample results were sent to the PADEP for review and approval. The DEP has approved the discharge of water. EPA approved the SAP in January 2022 following comment resolution. Fifteen extraction/monitoring points were installed between October and November of 2020. This includes the two extraction wells used for the Site 5 pilot test. These 15 wells have been sampled, and geophysical logging has been completed. A brief overview of the process to supply power, treatment trailers, and piping for the pilot test was reviewed.

The Engineering Evaluation/Cost Analysis (EE/CA) for a non-time-critical removal action was submitted to the regulators for review in May 2021. Following the EE/CA finalization, a public comment period will be held. A final interim action memo will be drafted after the public comments are received.

Ms. DeFreitas finished the Navy presentation by giving an action summary of the current progress that had just been discussed and actions anticipated to be completed before the next RAB meeting.

Then Jackie Boltz gave a brief overview of how the question and answer interface worked within WebEx for all the attendees before the floor was opened to questions regarding the Navy's presentation.

Mr. Lin read a question from Tom Ames regarding clarification on the monitoring of private wells that are removed from the quarterly monitoring program. Mr. Lin responded that there is a decision rule for private wells that have results below 40 parts per trillion (ppt) for four consecutive events. These wells are then placed into an annual monitoring period.

Mr. Lin relayed a question from Tom Ames concerning the monitoring of carbon tetrachloride in the Hangar 680 PFAS investigation. Ms. Moore replied that PADEP required carbon tetrachloride to be monitored in the system discharge as part of the permit that was granted to ensure that it was not being discharged at levels above the surface water PADEP medium specific concentration (MSC).

Mr. Lin delivered a question from Tom Ames regarding the green and red trend lines on slide 37 of the Navy presentation. Ms. Moore replied the green line is the cumulative mass which includes 18 PFAS, and the green line only includes perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). This means that the method is successfully removing PFAS from the groundwater, which includes other compounds other than just PFOS and PFOA.

Mr. Lin read a question from Tom Ames involving the PFAS groundwater contamination in the vicinity of Hangar 680 being significantly greater than the contamination near Site 5. Ms. Moore answered the data from the pilot test confirms that the PFAS levels at Hangar 680 are higher than at Site 5. Conceptually this makes sense because the volume of the AFFF PFOS containing compound at Hangar 680 was much greater than what was at Site 5.

Mr. Lin delivered a question from Tom Ames concerning the ongoing occurrence of meetings between the Navy, ANG, regulators, and consultants. Ms. DeFreitas replied that there are continued meetings between these organizations occurring.

With no further questions for the Navy, Ms. DeFreitas introduced Bill Myer to commence the ANG presentation.

Mr. Myer gave a brief update on changes that have occurred since the last RAB meeting, as well as a future forecast for upcoming activities. Coordination is underway with the EPA and PADEP on the transition from the Safe Drinking Water Act Administrative Order to the Navy Federal Facilities Agreement. In January 2022, a technical consultation was held with the EPA and PADEP covering bedrock characterization and sampling methodology. The scope of work and Independent Government Cost Estimate (IGCE) were submitted to contracting to support the acquisition for the PFAS Interim Groundwater Action. Technical memorandums for Round 8, Round 9, and Round 10 of the surface water sampling are in the process of being finalized. Leidos will be updating the Uniform Federal Policy for Quality Assurance Project Plan (UFP-QAPP) related to bedrock groundwater characterization and revised scope of work Phase II and III RI.

Mr. Myer introduced Matt Machusick with Leidos to discuss the RI they have been contracted to perform. Mr. Machusick explained that the RI would be conducted to determine the nature and

extent of the contamination and the potential threat to human health and the environment. Leidos will be collecting soil, sediment, surface water, and groundwater on the Biddle Air National Guard Base (formerly Horsham Air Guard Station) and off-site. A Baseline Risk Assessment will also be completed. In addition, there will be four quarters of groundwater sampling, twelve quarters of surface water sampling, and an annual stream gauging event.

Mr. Machusick discussed the progress of the RI at the time of the RAB meeting. Leidos has received back comments from the regulators on the UFP-QAPP. This document will serve as the work plan for the RI. In addition, Leidos is working on a revised scope of work and contractual modification with the ANG to conduct the additional work. The final sampling memo for Round 7 of quarterly surface water sampling was finalized. The draft final memo for Round 8 is being reviewed by the EPA and PADEP. The draft memos for Rounds 9 and 10 are being reviewed by the ANG. Mr. Machusick turned the presentation over to Lee dePersia.

Mr. dePersia provided an overview of PFOS and PFOA in the surface water at the Horsham Air Guard Station. The ANG has taken action to reduce PFOS and PFOA releases by implementing the treatment system discussed earlier in the meeting. There is a permanent treatment system currently in operation at the stormwater basin that went online in August 2021. This system captures and treats base flow. The new system increases the treatment capacity between 200 and 500 gallons per minute (gpm). Monthly monitoring of the plant's effluent water has been ongoing since August 2021. The monthly monitoring reports are submitted to PADEP, and the data is publicly available. The combined PFOA plus PFOS concentration is consistently below 2 ppt. As of February 2022, the plant has treated roughly 55 million gallons of water. The new plant consists of a sand filter, zeolite filter, granular activated carbon (GAC), and ion exchange (IX) resin

Mr. dePersia then discussed the involvement of the North Wales Water Authority. There was an agreement with Warrington Township to install carbon filtration on five of their supply wells and extend water mains for connections. Warrington Township has sold its water system to the North Wales Water Authority. The ANG has transferred the cooperative agreement to the North Wales Water Authority. They will continue the connections to municipal water for private well locations with detections above 70 ppt.

Mr. Myer presented PFOS and PFOA results in drinking water in the Horsham, Warrington, and Warminster areas. Mr. Myer discussed slides 12, 13, and 14 of the ANG presentation showing the number of private wells sampled above the 70 ppt EPA health advisory level and the number of connections completed.

Mr. Myer then concluded the ANG presentation.

Ms. Boltz reminded the attendees to utilize the question and answer box in the WebEx during the meeting. Then, the floor was opened to questions.

Mr. Myer read a question from Mr. Ames about the PFAS Interim Groundwater Action and details on what this will include. Mr. Myer responded that a 30-day pilot test study in the area around Building 201 to collect design information to potentially do hydraulic control of the PFAS contamination in the release area. With that completed, a pilot test report would be written, and the ANG would conduct an EE/CA.

Mr. Myer read a question from Joseph McGrath regarding the location of the treatment system on the ANG. Mr. dePersia responded that it is situated at the drainage basin at the northern portion of the site.

With no more questions regarding the ANG presentation, Mr. Myer introduced Colin Wade of PADEP to the attendees. Mr. Wade began the PADEP presentation with an update on the status of the PADEP rulemaking discussed in the December 2021 RAB meeting.

Currently, there are two PFAS rulemakings within this regulatory process. The PFAS cleanup rulemaking was just published as a final regulation in the Pennsylvania Bulletin. The PFAS drinking water rulemaking was just adopted as a proposed rulemaking by the Environmental Quality Board (EQB), and PADEP is now accepting public comments on the proposed maximum contaminant level (MCL). The proposed rulemaking is known as Safe Drinking Water PFAS MCL Rule 7-569. The proposed MCL for PFOA is 14 ppt, and the proposed MCL for PFOS is 18 ppt. The rulemaking also establishes monitoring requirements for PFOS and PFOA, the sampling and analytical requirements, and acceptable treatment technology, which include carbon infiltration, IX resin, and reverse osmosis.

Mr. Wade noted that the public commentary is now open, and it closes on April 27, 2022. Comments can be submitted in four ways. The first and preferred method is on the website at www.ahs.dep.pa.gov/e-comments. Additionally, comments can be e-mailed to regcomments@pa.gov, and written comments can be mailed to the EQB, PO Box 8477, Harrisburg, Pennsylvania, 17105. Finally, comments may also be submitted verbally. The PADEP is hosting five virtual public meetings on March 21, 22, 23, 24, and 25, all via Webex.

Mr. Wade then concluded the PADEP presentation, and Mr. Lin opened the floor to questions.

Mr. Wade read a question from Mr. Ames regarding the comparison of PFAS test results to the new PADEP standards. Mr. Wade explained that the results submitted by the Navy and ANG can be compared to PADEP's MSC. Both entities are using labs accredited by PADEP to perform the soil analysis.

Mr. Wade delivered a follow-up question from Mr. Ames concerning the approved test methods for PFAS contaminants. Mr. Wade clarified that rulemaking did not include the required test methods for PFAS. This reflects the nature of the updates, which do not prescribe test methods for any MSCs for any type of contaminant.

There were no other questions. Ms. DeFreitas announced the next RAB meeting would be held on May 19, 2022 and adjourned the RAB meeting. After a short break, Lora Werner of the ATSDR led a health discussion with community members.