



**U.S. AIR FORCE**

**Former Pease Air Force Base (Pease)  
Virtual Pease Restoration Advisory Board (RAB) Meeting**

Wednesday March 10, 2021 – 4:00 p.m.  
via webinar only, no in person meeting

**Meeting Minutes**

**RAB members present:** Andrea Amico (community member and co-chair), James Belanger (community member), Col. John Pogorek (ANG), Ted Connors (community member), Mike Daly (appointed member: US EPA), Mike Donahue (community member), Brian Goetz (appointed member: City of Portsmouth), Joan Hamblet (community member, state representative), Mark Mattson (community member), Mindi Messmer (community member), Peggy Lamson (community member), Russell Osgood (Portsmouth Fire Department), Lulu Pickering (community member), Peter Sandin (appointed member: NHDES), Maria Stowell (appointed member: Pease Development Authority), Roger Walton (appointed member: Air Force Civil Engineer Center, DoD Chair)

**Meeting support staff present:** Ona Ferguson (Consensus Building Institute – RAB Facilitator), Maggie Osthues (Consensus Building Institute Support), Linda Geissinger (AFCEC Public Affairs), Dante Gulle (AGEISS), Rob Singer (Wood), Lauren Tierney (Wood), Amy Quintin (Wood), Hank Andolsek (Wood)

**Others present:** Grant Austin, Scott Calkin, Matthew Casey, Peter Clark, Val de la Fuente, Brenda Escobar, Kelsey Dumville, Frank Getchell, Kerry Holmes, Robert Jesurum, Margaret McCarthy, Robin Mongeon, Albert Pratt, Sam Quattrini, Brandon Shaw, Stephen TerMaath, Justin Troiano, Sharon Vriesenga

**Next meeting:** June 9, 2021 – 4:00 – 6:00 p.m. via webinar, no in-person meeting.

**Meeting Materials:** Pease RAB meeting presentation slides are available at:  
<https://www.afcec.af.mil/Home/BRAC/Pease-Archives/>

**Video:** The virtual meeting was recorded and posted to the City of Portsmouth YouTube page and can be found at: <https://www.youtube.com/watch?v=Ipnk5mZiVqA>

**Welcome, Introductions, RAB Business – Ona Ferguson (Consensus Building Institute)**

- Ona Ferguson reviewed Zoom platform technology. This meeting is being recorded and will be available on the City of Portsmouth YouTube page.
- Ona Ferguson reviewed the agenda for the meeting.
- Minutes from the December 2020 RAB meeting were sent out 10 March 2021, edits are due by 19 March 2021. If no edits are received, the minutes will be assumed approved.
- The RAB welcomed new member Joan Hamblet, a Portsmouth resident and state representative elected in November 2020, here as community member to hear updates and relay to constituents.
- Remaining members of the present RAB introduced themselves.

**Remedial Investigation/Feasibility Study (RI/FS) Update – Roger Walton (Air Force)**

- Roger Walton provided an update on the status of the remedial investigation and summary of the public input received since the December 2020 RAB meeting. Three technical CSM meetings were previously conducted between the Air Force, Wood, Regulators, and interested RAB members.

- Roger Walton reviewed the CERCLA Cleanup Process Refresher diagram, which shows major timeline phases and descriptions. This meeting focused on the Remedial Investigation (RI) section and near-term activities planned for the next few months. The RI tasks consist of:
  - Site Characterization – determining *nature & extent*; what contamination is present and where it is going. At Pease there are many years of existing helpful information, so we are not starting from scratch. Roger Walton indicated that this approach will be iterative, with at a minimum one circle back.
  - Baseline Risk Assessment – combining sources, pathways, and receptors. This will rely on information from site characterization.
- Hank Andolsek, project hydrogeologist for Wood, presented the pre Work Plan activities that were conducted under the Conceptual Site Model (CSM) refresh.
  - Seep/spring reconnaissance was conducted along western installation boundary to identify locations that represent potential contaminant migration pathways. Multiple locations were identified and are proposed for sampling. Hank Andolsek presented a figure outlining locations of field recon findings indicating proposed sampling locations.
  - Samples were collected for geochemical analysis of watering springs and standing water observed in nearby fields to determine the parent water source; upgradient bedrock or overburden aquifer as the chemistry of the two aquifers are different. This will allow us to refine our CSM and install wells to monitor appropriately.
  - PFAS sampling was conducted at the Site 13 Bulk Fuel Storage Area southeast of the north apron along the east side of the facility. This sampling was used to refine our PFAS extent map. This map was constructed to show the extent of the contamination and subsequently proposed monitoring well locations for further investigation.
  - Borehole geophysical logging was conducted in five bedrock wells to help understand geologic structures, identify water bearing zones, understand transport mechanisms, and identify zones for packer sampling. Wood has not yet received borehole geophysical logs.
- Amy Quintin, Senior Health Risk Assessor for Wood, presented the public outreach component and the results of the Pease residential well questionnaires.
  - Questionnaires were provided to over 400 residents with municipal water connections that may have a private well (Questionnaire A).
  - Questionnaires were provided to 92 residents with a known private well (Questionnaire B).
  - Amy Quintin indicated an overall favorable response rate, with a 25% response rate for Questionnaire A and over 50% for Questionnaire B.
  - Results of Questionnaire A did not indicate many residents with municipal water also having a private well.
  - Standing water was reported on many properties, while few had standing water used for swimming or wading. The questionnaire identified some properties using groundwater or standing water for irrigation (including unintentional flooding).
  - The primary purpose of Questionnaire B was to identify water use related to growing fruits/vegetables and watering animals for consumption. The questionnaire identified gardens and some livestock for consumption. Other uses identified included car washing, watering lawns, geothermal, pools, hot tubs, and dog bathing.
  - The questionnaires are still live, with Wood still collecting responses, and people can still respond. Links to the questionnaires remain on the BRAC website and the Newington News “live links”. Questionnaire A was not sent to residents if we knew they didn’t have a well, but if someone did not receive a questionnaire, they can still provide information.
- As part of the public outreach, three CSM technical sessions were held with interested RAB members, and one technical session was held with the City of Portsmouth and the PDA. The technical sessions provided local knowledge and enhancements. The CSM technical session resulted in eight hours of

discussion. Highlights were provided by Hank Andolsek and Amy Quintin to summarize what was discussed.

- Hank Andolsek reviewed Conceptual Site Models as being made up of three pieces - a source, a pathway, and a receptor, then expanded on the sources and pathways.
  - There are several known source areas. Prior sampling of these source areas detected PFAS in unsaturated soils at elevated levels during the Basewide Site Investigation, resulting from foam discharged to the ground in those places. Source areas include crash fire stations, landfills, fire department equipment test areas, and others. Further sampling is proposed to evaluate the extent of contamination.
  - Proposed sampling to address other uses of firefighting foams include along the runway, sampling near the headwaters of Peverly Brook to evaluate potential crash impacts, and soil/groundwater sampling to evaluate presence or absence of PFAS in landfills areas, Zone2, and the KC-135 fire area. Possible other sources include municipal sludge and solid waste disposal areas.
  - Groundwater investigations will step outward and downgradient of current identified areas, using the AGQS to evaluate. Shallow groundwater and soil sampling of wetlands and hydric soils (wet soil) will be used to evaluate exposure pathways, determine if hydric soils are wet from rain or groundwater, and to evaluate wetlands to determine the possible contaminant migration is happening from the surface down or below up from groundwater. Samples will be collected from the storm sewer system as some parts of system collect and transmit groundwater to discharge pipes and the system also collects runoff from rain events. Contaminated soil can get washed in and transported across wide areas during these rain events. Fate & transport modeling of PFAS compounds in the soils will be evaluated by installing lysimeters in the vadose zone (area of soil from ground surface to water table) to examine mechanics of how PFAS can leach to groundwater.
- Amy Quintin discussed potential human receptors and who are considered receptors.
  - Residents, subsistence farmers, industrial/commercial workers (PDA area), construction workers (deeper soils associated with excavation), recreational waders/fishermen, and hunters were all identified as potential human receptors. Deer, shellfish, fish consumers are considered potential receptors, and previously collected data will drive whether or where to sample. While the current work plan does not include sampling of that, previously collected data includes deer samples from fish and wildlife, and shellfish samples from the previous Expanded Site Investigation. Wood continues to evaluate where and how these samples might be collected.
  - Hydric soil will be evaluated to determine the human health risk associated with lying hydric soils on residential property, basements, runoff, or groundwater. Land use areas have been adjusted to reflect current land ownership versus previous Air Force "Installation Boundary," and includes highlighting the Newington Old Town Forest publicly accessible land for recreation. Amy Quintin stated this CSM is specifically assessing human receptors and ecological receptors will follow later.
- Wood continued to present the outcomes of the CSM technical sessions and discussed hydric soils as a concern. Community members identified numerous shallow groundwater and hydric soils/low lying areas. A figure was displayed with wetlands and hydric soils which incorporated GIS hydric soils into the figure, with exposure routes added to the CSM, and associated samples proposed. Roger Walton reiterated the definition of CSM as a Conceptual Site Model.
- Andrea Amico commented that the technical sessions went really well, and discussions were very comprehensive and collaborative. RAB members brought valuable info and she learned a lot of historical information she hadn't heard before. Overall, Andrea Amico thought the technical sessions were great, and appreciated the summary documents that were sent out and updated based on reviews.
- Mindi Messmer agreed and hoped to continue to have more discussion when there is preliminary data to discuss, and was very happy the AGQS will be used.
- Amy Quintin concluded that the Remedial Investigation scoping aided in obtaining local knowledge and that determining the CSM is a very complex process. Recognizing the complexity means data collection

will happen in phases, with the initial phase consisting of nature and extent of contamination. Collected data will guide decisions about further sampling. Additional phases of investigation may include biological/ecological sampling under a separate work plan (home grown produce for example).

- Amy Quintin presented the Remedial Investigation-CSM Matrix slide line diagram. The diagram extends left to right indicating the sources, the transport/exposure mechanisms, and eventual receptors. The presentation was not intended for members to follow each pathway, rather intended to show members how complex the CSM is, and to illustrate the pathway to receptor. Amy Quintin noted this is a living document and is prone to change.
- Hank Andolsek presented the nature and extent of the Remedial Investigation and that an iterative approach is the goal of this phase. Hank Andolsek presented a figure indicating source areas and their migration pathways; including springs, surface water, groundwater, storm sewers, and hydric soils. Mark Mattson inquired what the contour intervals were, and Hank Andolsek indicated they were likely 5 ft. groundwater contour intervals.
- Amy Quintin presented the Remedial Investigation next steps and indicated comments have been received from the Air Force and Wood is in the process of resolving. The revised draft will be sent to regulatory agencies shortly. Additional work plans in preparation included the Human Health Risk Assessment Methodology and the Ecological Risk Assessment Methodology. Next phases of investigation will address biota and data gaps from the Phase I investigation. A virtual Town Hall meeting will be scheduled after regulatory approval of the Remedial Investigation work plan to provide a brief Pease historical review, CERCLA process overview, and what has been investigated to date and what are the next steps.

**RAB RI Questions** – *opportunity for RAB members to share thoughts, questions and concerns related to the cleanup*

- Andrea Amico asked how Wood arrived at 412 as the total number of A Questionnaires and what could be done to improve the response. Amy Quintin responded that Wood has conducted well surveys before and that these are people we knew who were not using groundwater for potable use. If Wood received previous responses, residents were not included in this round of questionnaires.
- Andrea Amico asked when the RAB will get to review the Remedial Investigation Work Plan. Roger Walton replied it will be available to the RAB after regulatory approval and that the standing policy of the Air Force is not to share draft documents to the public. Roger Walton stated once data is validated, the Air Force can share data with the RAB and have technical working group sessions. Roger Walton added that the process is continuous so if something comes up, data or public comment, we can be flexible moving forward, and in the Town Hall meetings the Air Force will brief where things are going to happen. Mike Daly added he agreed, and the Phase 1 investigation will reflect discussions during technical sessions with RAB members. Andrea Amico acknowledged knowing there are opportunities for the RAB to shape the investigation, that the RAB's wants and needs will be considered in the future, and to keep communication open.
- Mindi Messmer asked Hank Andolsek why there was no mention of bedrock migration pathways in the Phase 1 investigation. Hank Andolsek stated packer sampling and shallow fractured bedrock was scoped but no additional deep bedrock work is proposed in Phase 1. Hank Andolsek indicated Wood will use data from Phase 1 to determine data gaps to be addressed in Phase 2. Hank Andolsek indicated the ESI contained deep bedrock work, packer sampling, bedrock formation evaluation in Newington, and the ESI focused on residential well pathways. Mindi Messmer asked if potential source areas that she suggested during technical sessions would be evaluated (such as pesticides, landfills, munitions storage, and wastewater sludge). Roger Walton replied he is doing that review right now, the input was captured, but he cannot say exactly where on the map that we are doing soil sampling. Roger Walton indicated munitions storage was not initially on the radar, but we are looking at it now.

- Lulu Pickering asked about the Newington sewer system, particularly on the east side of the turnpike. Hank Andolsek stated the 1918 topographic map showed Pickering brook continuing all the way down and out to discharge, with no jog west to merge with Knights Brook, and likely has been engineered since then to change its course. Hank Andolsek stated there is relic drainage that goes in that direction and Wood is stepping out and moving outward in investigation, using the AGQS as a metric, and if there is contamination there, it will be found by stepping out.
- Lulu Pickering asked about the timeline of the different Phases of work. Roger Walton responded as we move through the Work Plan approval, we can establish a timeline with Phase 1 as early in spring as possible and hopefully Phase 2 underway in late summer. Roger Walton stated produce will not be evaluated until Phase 3 and all investigation is designed to happen in 2021. Roger Walton added this is subject to change as we analyze new data.
- Peggy Lamson asked Roger Walton to talk about the Newington landmarks, to please describe where they are in more detail, and be more expressive. Peggy Lamson also inquired about bedrock and thanked Roger Walton and Ona Ferguson. Roger Walton replied he will share a map with the minutes to explain locations and how we all look at the Site.

#### **Open Discussion – RAB members**

- Michael Donahue stated he concurred with Andrea Amico about quality of ability to participate in technical sessions, but—that the public needs to understand that participation is limited by inability of the Air Force to disclose private well data. Michael Donahue indicated that data drives a lot and takes Hank Andolsek at faith when we talk about bedrock aquifer, and that Wood is relying on data that the RAB is not able to analyze. Michael Donahue acknowledged that there is no sampling shellfish in that area on the west side of the Newington peninsula and there are relatively easy spots that could be sampled. Michael Donahue stated the public needs to know that without seeing where those wells are or what the results are, we have no way of supporting decisions. Michael Donahue asked if in the future, can the Air Force ask private parties to give consent to share their data.
- Mindi Messmer also shared concerns about shellfish issues, and that she would prefer more transparency about sample locations along the way, and prior to approval of the work plan.
- Lulu Pickering inquired about the AFFF fingerprint and why some compositions are different in different locations. Roger Walton replied it is derived from two major categories; 3M type foam has a certain environmental signature, and telomer foams have a similar signature. As best as we can tell it looks like Pease has a mix of both. Roger Walton indicated we are not at a point of fingerprinting or doing forensics—we have tabulated what does get detected the most and what consistently appears, but not to the level of fingerprinting and determining what foam is which. Lulu Pickering asked if there are any indications that some foams would have been earlier/later? Roger Walton replied much of what we’re seeing is PFOS, which suggests the 3M based foam. Roger Walton added we are looking at how to present the data to show that and understanding how the blend of compounds changes as we move away from source areas. Lulu Pickering asked if the Air Force is seeing the same profile/proportion across the base. Roger Walton replied for the most part the ratios are somewhat consistent between PFOS and PFHxS, while some environmental samples have just PFOA, but we don’t have a rationale for that. Roger Walton added it’s not 100% consistent and we’re still in the early stages of understanding the mix.
- Mindi Messmer asked if the PFAS compound list is in the RI? Roger Walton responded the list is derived from the DoD QSM 5.3 Table B15.

#### **City of Portsmouth Water Treatment System Update - Brian Goetz**

- Brian Goetz presented an overview of the Grafton Road well treatment system, consisting of treating Haven, Harrison, and Smith wells. The system contains booster pumps (due to filters), two resin filters, and polishing through Granular Activated Carbon (GAC) vessels. GAC vessels have been treating Harrison and Smith wells since 2016.

- Brian Goetz presented updated photos of the facility. Tallest section is where three carbon filters are located, with resin filters now to the right. Resin vessels were loaded the week of 3/4/21. The new manifold was installed between 21 and 22 February 2021.
- Brian Goetz provided an update to the startup schedule. The resin startup will start with just Harrison and Smith wells; prior to the Haven well to assure operational capacity. A Haven well pump test will be held in April prior to pumping Haven well water into the system. Prior to turning on the Haven well to the public drinking water system, it will be sampled for a full suite of all regulated drinking water contaminants, not just for PFAS.
- Brian Goetz will continue to let everyone know how things go with the sampling and make the sample results public once the data has been validated, and keep everyone posted as to how it is running. The City is hoping post COVID-19 to do some sort of socially distanced dedication of the facility.
- Andrea Amico stated she will continue to say that she is concerned that the Haven well will be coming back online, given not just the PFAS contamination but past TCE contamination. Andrea Amico asked if, after several years of not operating the Haven well, it can be operated only as a backup well for now. Andrea Amico also asked if the Air Force and the City have considered how the contaminant concentrations in the Haven well might change overtime. Brian Goetz indicated they share her concerns, and that's why the City is going above and beyond to sample the Haven well prior to turning it back on. Brian Goetz stated that we have a system that has resin for PFAS but also GAC treatment which treats for more than PFAS. Brian Goetz stated that for seven summers we've been without this source and have had to use Portsmouth water to support Pease, and have been through two historic droughts. Brian Goetz stated the City is hoping to do a slow ramp-up of the Haven well, run it at lower rate and hopefully as the year's progress, with AIMS in operation—the Haven well water will get cleaner. Roger Walton stated the IMW was designed to pump at similar rates as the IMW, located in a similar hydraulic zone, and we have a good set of data on the IMW. Roger Walton added that it was designed for the two wells to talk to each other so that zone of water would be continuously treated with resin.
- Mindi Messmer followed up and shared Andrea Amico's concerns. Mindi Messmer asked if it would make sense to wait until after the RI to start up the Haven well, and asked how many compounds the City samples for. Mindi Messmer stated over 9,200 compounds exist and only four compounds are regulated in NH. Brian Goetz stated the City samples for 25 analytes using EPA method 533 with the lower detection limit, which is the current state-of-the-art method and the City is doing their best to stay ahead of the curve as much as possible.

#### **Public Comments**

- No public comments were received.

#### **Meeting Recap and Next Steps – Ona Ferguson**

- Ona Ferguson stated the next RAB meeting is June 9<sup>th</sup> 4-6 pm and to send her, Andrea Amico, or Roger Walton topic suggestions at any point.
- Ona Ferguson summarized the meeting's repeated themes:
  - The need to track what might impact the community in a variety of ways – what are we finding, what are we testing for, and where are we testing.
  - Appreciation for ongoing dialog and engagement – let's keep doing that and keep communication open.
- Ona Ferguson facilitated the final thoughts of all RAB members.
- Andrea Amico expressed thanks for the technical sessions and would like to have another one after the work plan is finalized. Andrea Amico stated her concern over the Haven well and will be looking for updates when it comes online. James Belanger agreed.
- Michael Donahue stated he hopes that in the June meeting there is more information specific to the Haven well and testing.

- Joan Hamblet said thank you.
- Peggy Lamson said thank you, and asked Roger to remember to identify where the brooks are, so the public knows.
- Lulu Pickering said thank you, and that she realizes a lot of people are putting time and effort in and we're all going in same direction which gives her some relief and she feels it is worth participating in the RAB.
- Mark Mattson said he really enjoyed the CSM flow charts and is looking forward to being more actively involved in Ecological Risk phase.
- Mindi Messmer said thanks again for openness to technical suggestions and a good working relationship. Mindi Messmer makes plea out to Mike Daly and Peter Sandin to push as hard as possible to have largest list of compounds for analysis, and as full a list as possible.
- Russell Osgood agreed with Mindi Messmer to look for everything we can and offered kudos to everyone.
- Roger Walton said thanks for participation, and that both sides agree the technical sessions were useful with great feedback.
- Brian Goetz said thank you and will keep everyone posted on the City's efforts.
- Col. John Pogorak said thank you.
- Peter Sandin said thanks and his is looking forward to reviewing scope.
- Maria Stowell said thanks and that the Haven well is a valuable resource and supports working to get back to the point where it can be used again. Maria Stowell indicated she has confidence in the process, knows it is well scrutinized, and after all this work does not want to abandon the well.
- Mike Daly said it had been a great meeting; he really enjoyed the give and take during the technical sessions and is committed to maintaining dialog. Mike Daly said it takes a while to compile data and share it and appreciates the Air Force's efforts to execute as fast as possible. Mike Daly said he is starting even now to think about remedying these problems, assuming we will have some unacceptable risk according to CERCLA.

## **Adjourn**