

MEETING MINUTES

Naval Air Station Whidbey Island, Restoration Advisory Board Meeting, October 23, 2019

PREPARED FOR: NAVFAC NW
PREPARED BY: Battelle
SUBJECT: Summary of Meeting Minutes from the Restoration Advisory Board (RAB)
Meeting, October 23, 2019

Purpose

The purpose of this meeting is to update the public on the restoration program and be part of ongoing actions by providing input on the status of the site.

Navy Staff: Captain Matt Arny
Melanie Bengtson (Navy co-chair)
Kendra Leibman (Navy co-chair)
Laura Himes
Kristeen Bennett
Chris Generous

RAB Members:
Kathy Lester (community co-chair)
Gary Winlund (alternate community co-chair)
Celine Servatius
Madeline Rose
Joseph Grogan
David A. Macys
Martha Yount
Celine Servatius
Philip A. Derise

RAB Members (non-voting):
Chan Pongkhamsing, U.S. Environmental Protection Agency (EPA)
Sandra Caldwell, Washington State Department of Ecology
Ron Johnson, Washington State Department of Ecology
Doug Kelly, Island County Public Health

Citizens: Candy Rohr
Rick Abraham
Krista Jackson
Garrett Newkirk
Bonnie Newkirk
Ray Koladyck

Paul Perlwitz
Brad Dalton
Jim Patton

Facilitator assistance

JoAnn Grady

Summary

This document presents a summary of the October 23, 2019 RAB Meeting. The meeting summary is divided into seven main sections:

- Part 1: Introductions
- Part 2: Five-Year Review
- Part 3: Area 6 Update
- Part 4: Military Munitions Response Program Update
- Part 5: Petroleum Restoration Program Update
- Part 6: Per- and Polyfluoroalkyl Substances (PFAS) Update
- Part 7: Miscellaneous Discussion Items

Part 1 Introductions

Introductions

- Captain Army thanked everyone for their involvement and participation in the RAB.
- Ms. Bengtson, local NAS Whidbey Island Environmental Director, introduced the Whidbey RAB team.
- Mr. Pongkhamasing from the U.S. (EPA clarified its role at Whidbey Island. Per the Federal Facilities Agreement, the Navy is the lead agency for the Superfund/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) statute, and the EPA oversees the process to ensure it complies with the CERCLA regulations and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). EPA reviews all documents provided by the Navy. EPA also provides guidelines to the Navy on how to implement CERCLA and NCP.

RAB Charter

- Ms. Lester indicated the RAB meeting would be run like a city council meeting using the Roberts Rules of Order. Ms. Lester encouraged community members to contact RAB members who will help get answers to any questions they have. Ms. Lester mentioned that the RAB meetings will be conducted by the RAB Co-Chair; and has a provision for providing a facilitator if needed in implementing the new RAB charter. She indicated that the Navy provided a facilitator for this RAB meeting.
- Ms. Lester went over the RAB roles and the ground rules for the RAB meeting.
- Ms. Lester mentioned that the meeting was being recorded as the stenographer could not make it due to a family emergency. The recording would be used to develop the meeting minutes.
- The RAB meeting minutes from April 2019 were voted on and approved by the RAB members.

Status of Previous Action Items

- There were numerous action items from the April 2019 RAB meeting. The status of the action items was provided in a handout to all attendees.

Overview

- Ms. Himes provided an overview of the restoration sites
- Brief reference to the Land Use Controls (LUC) handout and more information to be presented by Ms. Himes.

Part 2 Five-Year Review (FYR) (Laura Himes)

- The final fifth CERCLA FYR has been completed and signed and is posted on the RAB website.
 - EPA concurred with the Navy on protectiveness statements
 - Remedies at Operable Unit (OU) 1 Area 5, OU 3 (Runway ditches), OU 4 (Seaplane Base), OU 5 Areas 1 and 52 (shoreline) remain protective of human health and the environment.
 - Remedy at OU 1 Area 6 is short-term protective. A Record of Design (ROD) amendment for 1,4-dioxane was signed. In order for the remedy to be protective in the long-term, the amended remedy selected in the Final ROD Amendment, addressing vinyl chloride and 1,4-dioxane in groundwater, needs to be implemented.
 - Remedies at OU 2 and OU 5 Area 31 are short-term protective since perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in these areas could impact the future protectiveness of the remedy. There are ongoing PFAS investigations and the next FYR to determine if the current remedies will continue to be protective with respect to PFAS in the future.
 - Recommendations from the fifth FYR were presented along with the Navy's plans to implement the recommendations.
 - Area 6: Update the LUC Implementation Plan and implement the ROD Amendment

Part 3 Area 6 Update (Laura Himes)

- Ms. Himes went over work conducted since the last RAB meeting including:
 - Finalized ROD amendment: signed by EPA and is on the RAB website.
 - Contract awarded for Southern Advanced Oxidation Groundwater Treatment Plant: first treatment plant to address 1,4-dioxane plume.
 - Routine operations including LUC inspections, continuing to operate current groundwater treatment system, landfill maintenance and operation, and annual groundwater monitoring.
- Ms. Himes provided a brief overview of the ROD amendment:

- Adds 1,4-dioxane as a chemical of concern since it was not included in the original ROD, removed some chemicals that have reached cleanup levels, and modified cleanup levels for chemicals that have changed over time.
- Adding a new treatment system to the south and upgrading existing treatment system to advanced oxidation. The treatment will transition from active treatment to passive monitored natural attenuation (MNA) at the point when the efficacy of MNA is shown. Institutional controls will also be part of the remedy.
- Planned work before next RAB:
 - Work plans for new south treatment plant.
 - Securing real estate agreements from Washington DOT and the City of Oak Harbor in order to install infrastructure along SR-20 for the new groundwater treatment plant.
 - Continue with current remediation efforts at Area 6.

RAB members had the following questions

- Mr. Macys asked if when the treatment process is modified, will it be an add-on unit to the existing facility, or will the entire facility need to be replaced with sequential treatment process.
 - Ms. Himes explained that there are two different plants including a new stand-alone plant to the south (SR-20) that will be first online running concurrently with the treatment plant that is currently operating. Once the new plant is online, the current system will be replaced but the Navy will use components (e.g., pumping wells) from the current system as possible. However, the treatment technology will be advanced oxidation.
- Question regarding the modification of cleanup levels for vinyl chloride and 1,1-DCE. What are the revised cleanup levels?
 - Ms. Himes explained that vinyl chloride changed to the new Model Toxics Control Act (MTCA) cleanup level which was from 0.02 µg/L to 0.029 µg/L and 1,1-DCE in the previous ROD amendment was based on the previous MTCA level (from IRIS number) so that has been changed to the maximum contaminant level (MCL). The ROD amendment discusses the shift in cleanup levels. The MCL has been used for a while based on a verbal discussion with EPA so the change in the ROD amendment is a formality to document the change.

Part 4 Military Munitions Response Program Update (Laura Himes)

- Ms. Himes summarized the work planned before the next RAB
 - The Navy is working on the reporting for the Lake Hancock Remedial Action Construction Plan.
 - Land use controls: at Lake Hancock the Navy is conducting annual and/or five-year inspections that include removal of surface debris as required around the target area and repairing signage as necessary.

RAB members asked the following questions

- Is the Lake Hancock Range still being used?

- Ms. Himes explained that the range is not used as a range and Captain Army indicated that it is only used for search and rescue training from the helicopter periodically.

Part 5 Petroleum Restoration Program Update (Laura Himes)

- Ms. Himes reviewed work conducted since the last RAB meeting including:
 - Continued free product recovery and groundwater monitoring sampling, and
 - Planning currently being conducted by the Navy for the A3 UST follow-on work.
- Planned work before next RAB:
 - Continued free-product recovery and groundwater monitoring/sampling at the Fuel Farms.
 - Award of the A3 UST follow-on work.

RAB members had the following questions

- A RAB member asked why it was taking so long for UST A3 to get removed.
 - Ms. Bennett explained that the Navy did do some removal with a previous contract. There were some limitations with the contract that did not allow the contractor to continue to excavate to the extent of the contamination so there is a follow-on action to complete the work.
- A RAB member also asked how much product has been recovered there in the last few months.
 - Ms. Bennett did not have the data at the meeting and took an action item to provide the RAB with the information as soon as possible.
- A RAB member asked if the Navy is still sampling annually by the Marina.
 - Ms. Bennett also did not have this information and took an action item to provide the RAB with the information as soon as possible.

Part 6 PFAS Update (Kendra Leibman)

PFAS Drinking Water

- Ms. Leibman reviewed work conducted since the last RAB meeting including:
 - In April 2019, the Navy conducted the biannual (spring and summer) drinking water sampling event which entails sampling drinking water wells that have had detections of any PFAS compound, and sampling wells adjacent to residents with PFOS and PFOA exceedances.
 - As has been done in the past, if any new wells have PFOS/PFOA exceedances, the Navy provides drinking water to those homes. To date, no new wells exceeding the PFOS/PFOA EPA health advisory have been identified.
 - Navy will continue to provide bottled water to homes with PFOS/PFOA exceedances.
 - The Navy is continuing to implement the long-term solution for Coupeville which includes installing a new granular activated carbon (GAC) treatment system for the town. The system was put online and started treating water in July 2019. The Navy is

continuing to work on completing the construction of the treatment plant. The Navy will break ground for installing the water main next week (week of October 28th).

- The Navy has also been evaluating the long-term solution in Oak Harbor. Seven wells were identified: two wells near Ault Field proper and five wells upgradient of the Area 6 landfill that had exceedances. The Navy is developing an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate the cost, implementation, and effectiveness of all potential solutions for the wells. The document is in the draft final stage and should be available for public review within the next two weeks. A public notice will be provided which will have direction on how to provide comments. The document will be put in the Oak Harbor library and on the RAB website.
- Ms. Leibman reviewed work planned before the next RAB meeting:
 - The next drinking water biannual sampling event is scheduled for the week of October 28. A slight modification has been made to the biannual sampling. This sampling will include all homes that are not currently sampled that are in and around the area that are planned to be connected to the Coupeville water line. The purpose is to ensure all homes above the EPA's health advisory being connected prior to installing the new water line.
 - The Navy will continue to complete the long-term solution for Coupeville, including completing the building extension, and completing the water main and service lines' construction. This work should be complete before the next RAB meeting.
 - For Oak Harbor, the Navy expects to have received public comments on the EE/CA and will finalize the document. The document will include the preferred long-term solution for the wells in Oak Harbor. The Navy will also be publishing an Action Memorandum which will summarize the findings from the EE/CA. The Action Memorandum will also be available for public comment giving the public another opportunity to provide input on the long-term solution. Once the Action Memorandum is finalized, the Navy will start the contract process for designing and constructing the selected long-term solution.
- Ms. Leibman showed some photographs of the progress at the Coupeville site.

RAB members had the following questions:

- Are they going to require more operators for the new treatment plant?
 - Ms. Leibman stated that the plant will be more automated and that is a benefit. It will be more technical so there will be some higher training required. She stated Joe Grogan is the operator and asked Mr. Grogan to provide more detail. Mr. Grogan explained that the Navy is still looking at the operation and maintenance (O&M) portion of the process and explained that there will be more analytical testing required, some that will be done in house. Mr. Grogan estimated the need of at least one half-time employee as an additional operator. Ms. Leibman added that an O&M manual will be provided to the Town's staff for review/input. The manual will document the training requirements.
- Going back to the biannual sampling since spring, are there preferred months in the spring?
 - Ms. Leibman indicated that the sampling is generally done in March or April, during the rainier times of the year and they like to look at the fluctuations of the seasons.
- And that is why you are sampling now for the fall sampling event?

- Yes, however, Ms. Leibman stated that the Navy typically likes to sample in September, but the Navy has added some additional sampling locations to the program which has caused a slight delay.
- Is there going to be a Memorandum of Understanding (MOU) between the Navy and City of Coupeville on the operation of the plant?
 - Yes, there currently is a cooperative agreement which includes procuring easements for the water main and also to obtain a franchise agreement on SR-20. They already have a franchise agreement with Island County. In the future, another cooperative agreement will be made for the operation and maintenance of the PFAS treatment system and other necessary upgrades.

PFAS Groundwater Investigation

- Ms. Leibman reviewed work conducted since the last RAB meeting including:
 - The Navy completed the draft work plans for the full Ault Field site inspection which includes installing wells on the runway, aprons and other areas of interest.
 - The preliminary assessment (PA) (completed before the last RAB) identified 32 areas that required additional evaluation for PFAS. The Site Inspection (SI) is the next step to start evaluating these areas.
 - The Navy completed the internal draft work plans for the Seaplane Base SI. The Navy identified two areas during the PA for this area which will be investigated during the SI.
 - The Navy has completed the work plans for the Outlying Field (OLF) supplemental investigation. Work started in July 2019. Two previous investigations were conducted on OLF where 31 wells were installed. Exceedances of the EPA Lifetime Health Advisory (LHA) for PFAS have been detected mostly near the center of the OLF area, and east and west off the center of the runway. The Navy does not know what is happening with the plume between the points of exceedances and off-base residents. The purpose of the investigation is to refine the groundwater model and develop plume maps for OLF on and off base. The orange circles on the map in the presentation are where the Navy is installing wells for this phase of the supplemental investigation. Areas were selected based on the source areas and areas where no information exists. Once the data is available, the Navy will use the results to determine other areas (not on the map) that need to be investigated. This next phase will be planned with input from stakeholders with the goal to delineate the entire area for extent of PFAS contamination.
 - Phase 1 is to install initial wells in the orange circles (see Slide 25 of the presentation), Phase 2 is to install additional wells based on the results of the Phase 1 investigation, and Phase 3 is to install additional wells off base. Off-base wells will be installed to the north and south. The Navy is currently working on the access agreements with the property owners and plan to start the work in spring 2020.
 - Groundwater flow at OLF is interesting. There are three zones: shallow, intermediate and deep. The shallow zone is a perched zone so it can't be reliably tracked. The intermediate zone can be tracked and in general is flowing to the southwest and south (most exceedances are found to the south). There is a deeper zone aquifer for which the Navy does not have much data; however, based on the data available, the deeper zone is also flowing south.

- Ms. Leibman reviewed work planned before the next RAB meeting including:
 - Complete work plans and field work for Ault Field SI.
 - Complete Phases 1 and 2 for OLF Coupeville Supplemental SI.
 - Finalize land access agreements.
 - Begin Phase 3 work for OLF Coupeville Supplemental SI.

RAB members had the following questions:

- Do you think there will be difficulty in getting the land access agreements in place?
 - Ms. Leibman indicated that the conversations so far have been optimistic. Per the Navy's process, it takes up to a year to get an easement or lease; therefore, early planning is critical.
- Is the sampling in the spring going to include the Admiral's Cove water district?
 - Ms. Leibman indicated that at this time the Navy does not plan to resample at Admiral's Cove. The initial results from Admiral's Cove wells did not include any detections.
- Will the off-base monitoring wells be located between South Bend and Admiral's Cove?
 - Ms. Leibman explained that the Navy is only installing one monitoring well off base between OLF Coupeville and one of the off-base exceedances (south of OLF and north of SR-20). There has been no confirmation with the resident yet.
- The reason for the question above is because all of the wells are in the southeastern portion of the subdivision further up on the hill which would be in line with the south end of the runway.
 - Ms. Leibman explained that there were no detections in previous sampling done in that area. The Navy is evaluating the need to re-sample wells since some wells were sampled almost three years ago but currently the previous data in this area doesn't necessitate it, but that may change.

Part 7 Miscellaneous Discussion Items (Kendra Leibman)

- Ms. Leibman provided a list of relevant websites on the presentation which include:
 - RAB website.
 - PFAS website – up and running but will be going through some changes to improve the information sharing.
 - Environmental Restoration Program website.
- If there is any trouble finding any information, please contact the Navy Public Information Office (their contact info can be provided if needed). James Johnson is the new Public Affairs Officer at NAVFAC NW. His e-mail is PAO_Feedback@navy.mil.
- As Ms. Himes pointed out, the action items from the last RAB are in a handout for the RAB members to review.
- The Navy would like the community to use Ms. Lester and other RAB members as a conduit to help answer community questions since Navy personnel aren't always available and don't live on Whidbey Island.

Public comments, asked to be limited to 3 minutes

- Mr. Abraham asked if the 1-mile diameter sampling area is for residents who have had no sampling done in the past?
 - Ms. Leibman clarified that the biannual sampling includes all homes that have detections of any PFAS compound up to this point. It also includes homes that are adjacent to the homes with exceedances. All of these wells are sampled biannually (not just wells with exceedances). There are eight wells with exceedances and 12 homes associated with those wells as well as wells adjacent to them.
 - Additional sampling is for wells south of OLF which include eight wells not described above. Most of these wells have been sampled before but some have not been sampled. Previous results for wells that have been sampled were non-detect for PFAS compounds.
- Mr. Abraham was under the impression that the sampling mentioned above is different from the program within the 1-mile radius.
 - Ms. Leibman explained that the initial sampling was the 1-mile radius. After the initial sampling, the Navy has continued to biannually sample the wells as described above. There is no plan to sample every well in the 1-mile radius at this time.
- Mr. Abraham asked if there were plans to sample the wells of someone within the 1-mile radius that has not yet had their well sampled?
 - Ms. Leibman suggested that if a resident in that 1-mile radius that has not had their well sampled requests to have their well sampled, the Navy will sample the well.
- Mr. Abraham asked about residents that are outside the 1-mile radius that want to have their wells sampled because they have not been sampled for a long time, will those be sampled?
 - Ms. Leibman stated that Phase 2 extended the 1-mile radius another ½ mile. She said the data do not show that it is necessary extend the sampling to more homes because there were no detections above the LHA in Phase 2 area.
- Mr. Abraham asked how long ago that occurred?
 - Ms. Leibman stated that Phase 2 was conducted in 2017.
- Mr. Abraham indicated that there are a lot of homes in that area that are downgradient of the 1-mile radius and some houses outside that zone that have independently been sampled and had exceedances. Is the Navy not going to sample those wells if asked to? Where is the continued monitoring data?
 - Ms. Leibman explained that the Navy has been monitoring the movement of the plume and the wells adjacent to the exceedances remain non-detect. The data are not showing the need to sample the wells outside the area currently being sampled.
- Mr. Abraham commented that adding filters to the Coupeville treatment system, while great, will not solve the problem for residents on private wells for drinking water. He furthered, that even if PFAS is not in their wells now, the plume is migrating off base. Additionally, he asked where will the filters be disposed of from the treatment plant?
 - Ms. Leibman explained that at this point the Navy has not decided whether the GAC will be regenerated or disposed.

- Mr. Abraham commented that it is a concern of the citizens because they don't want the GAC to be disposed of in the landfill on the island or in some other community.
 - Ms. Leibman said that the GAC will be disposed of (if not regenerated) in an appropriate landfill that can handle the waste.
- Mr. Abraham added that if the Navy is serious about getting public input, they need to do more to give people an opportunity. He said people that work until 5:00 pm may not be able to get to the meeting in time.
- Mr. Newkirk, North Whidbey Resident, asked that the Navy write a letter from the area tested that shows contamination hasn't gone off Base. He then provided water to the Navy members with 175 parts per trillion (ppt) of PFOS and PFOA taken from the Clover Valley Creek which is upgradient of the well he used to fill the jugs and asked that they take a drink. Water was taken from a backup well that was originally used for drinking water. Ms. Lester asked if it was used as drinking water and Mr. Garrett said it was, but they had to stop using it due to the smell and color of the water. A RAB member asked why he would want them to drink it when he doesn't drink it, and he explained that it was because it is water the Navy doesn't want to do anything about because it meets the regulations (i.e., LHA) for PFAS. The well is used as a backup irrigation well and backup home water well.
 - Ms. Leibman clarified that the water was tested and did not have exceedances and would like to talk after the meeting and go over the results.
- Mr. Newkirk clarified that the water is used to irrigate crops which could cause PFAS to be taken up in the crops that people eat. He asked what the Navy was going to do about irrigation water from Clover Valley Creek. How is that water going to be treated for the farmers?
 - Ms. Leibman and Ms. Lester asked if they could chat after the meeting to discuss the results of the well.
- Ms. Rohr said that in action item #19 from the last meeting, some wells near Dugualla Bay were sampled. There are groundwater wells about a mile from that area. Is there information on the results of that sampling on the website?
 - Ms. Leibman indicated that the results have been put on the website under Ault Field Phase 4 drinking water results. There were three very low detections of one of the PFAS compounds. All were below the lifetime health advisory. Because there were no exceedances, that is the last phase and the Navy will not be stepping out further based on those results. The Ault Field Phase 4 fact sheet has a figure that shows the sampling area.
- Ms. Rohr pointed out that Mr. Garrett was referring to surface water and the Navy is sampling groundwater. Can you clarify that?
 - Ms. Leibman clarified that the Navy is sampling drinking water. The Navy program is currently sampling drinking water off Base and also sampling groundwater on Base (including installing groundwater wells). The difference is that both are getting a sample from the ground, but a groundwater well is not used as a drinking water source and a drinking water well is. There are different construction standards from the Department of Ecology for drinking water wells. Ms. Leibman confirmed with Mr. Garrett Newkirk that the Navy has sampled surface water at the slough and there have been exceedances. The Navy acknowledges that and are looking for ways to mitigate it. However, there are three wells in that area that had detections but no exceedances.

Mr. Newkirk's well had a detection but not an exceedance which is why we would like to speak with him and look at the results.

- Ms. Rohr has heard that the Navy is no longer using firefighting foam with PFAS in it for testing and training purposes, only in the case of an actual fire. Why would PFAS be going off Base at this time and getting into the drainage pond?
 - Ms. Leibman indicated that it is from previous releases from the time that the Navy did not have any knowledge that these compounds were harmful.
- Ms. Rohr suggested the residents on the east part of the island would have to pay attention to what is going on with the Dugualla Bay testing, both surface and groundwater?
 - Ms. Leibman stated that yes, however, if there is a detection or exceedance in surface water it does not mean that there will be a detection or exceedance in drinking water. It has to migrate through the ground and get to that point. It does help to pay attention to both, but one needs to understand the connection between the two. She said that the Navy is available to further explain this to the community.
- Ms. Yount asked if one is not happy with the test results that they see, are there other non-Navy tests that residents can have done to back up the results?
 - Ms. Leibman suggested that any resident is welcome to have their own sampling done. There are specific techniques required for PFAS compounds and the Navy would be happy to provide that information as well as laboratories that are accredited to analyze PFAS.
- Ms. Yount stated that the goal of all of the groups represented here is to move forward and find out what is in the water.
 - Ms. Leibman agreed with that statement. She said she recognizes the compounds have been released into the environment by the Navy, and the Navy is trying to find solutions to help improve the situation.
- Ms. Newkirk said she has a farm that is irrigated out of the slough and so do most of her neighbors. She is concerned that the water is 175 ppt at the end of the runways and 145 ppt where it gets pumped out into a salmon restoration area. It also goes to the Sound which residents believe will be polluting the whales. She said the farmers are very concerned about the farm animals and produce. Can the Navy test the cows and produce so the farmers aren't selling contaminated goods to people?
 - Ms. Leibman indicated that the Navy is in the very early stages of its investigation. The next step will be the remedial investigation which includes sampling sediments and surface water to figure out the extent of the contamination. Unfortunately, there are no regulatory levels at this time to compare surface water, sediment, or tissue results against. When the Navy takes the samples, they'll have the results but won't have anything to compare it to. Even if the Navy were to take samples now, they would not be able to tell residents if the food is safe to eat or not.
- Ms. Newkirk stated that two or three weeks ago she went to look at the slough and the Navy was there with a track hoe stirring up the sediment, dredging the sediment and throwing it on Navy property. Then the water was pumped out of the slough after stirring up the sediment. The residents don't know what they are getting and would like the Navy to test everything down there.

- Ms. Leibman suggested the Navy would have to get back to Ms. Newkirk on that because she doesn't know the specifics.
- Ms. Newkirk stated that she called EPA, the governor, and the Navy. She took pictures and did a FOIA and tried to get it stopped. It is scary for the residents.
 - Ms. Leibman appreciates Ms. Newkirk reaching out and sharing her concern. She recommended that Ms. Newkirk reach out to someone from the Department of Health, a toxicologist that specializes in this, and also the Agency for Toxic Substance and Disease Registry (ATSDR). They specialize in this area and should be able to provide feedback. Ms. Newkirk reached out to the Department of Agriculture already. Ms. Leibman suggested that a lot of agencies aren't yet sure what to do, but that doesn't help residents. The science is evolving, and new information is coming out so the Department of Health and ASTDR are the best groups to reach out to for information.
- Ms. Jackson has a well (off of Sleeper Road) that is contaminated at levels below the EPA LHA level but above the ASTDR's minimum risk level. The neighbor's well is above the 70 ppt level but hasn't been resampled.
 - Ms. Leibman indicated that is part of the Ault Field EE/CA currently in progress. It has not been done but it is part of the evaluation. Currently, the Navy is recommending the connection to the new well, but full evaluation has to be completed before the Navy can make that decision.
- Ms. Jackson said that because her well is below the 70 ppt, the Navy is not providing bottled water. How confident is the Navy that when the neighbor's well is hooked up, the PFAS from their well won't end up in Ms. Jackson's well?
 - Ms. Leibman does not have 100% confidence that it won't happen which is why the Navy is sampling her well as part of the biannual sampling.
- Ms. Jackson asked whether once the neighbor is hooked up to the well, how fast will the PFAS trickle to Ms. Jackson's well and will the biannual sampling be enough?
 - Ms. Leibman indicated that the Navy is confident right now that the six-month sampling will show what information is needed. If the Navy sees changes to the levels, the approach will be modified as necessary. Sampling will be conducted more frequently if it is necessary based on the data.
- Ms. Jackson asked about Slide 18, adding a new treatment plant at the south end of Area 6. Ms. Jackson's understanding with the current treatment plant at the north end is as the water is drawn out it goes through the air stripper and then is put on the ground to become part of the groundwater. Will the same process be occurring at the southern plant?
 - Ms. Himes explained that the water will be put into the same discharge so it will not be on the south end but up on the north end of Area 6 where it will be discharged to the surface.
- Ms. Jackson asked if there is PFAS in that water and asked if the current air stripping technology removes the PFAS.
 - Ms. Himes stated that there is a very low amount of PFAS in the water. She added the air stripping technology does not remove PFAS from the water.
- Ms. Jackson asked if the PFAS will be concentrated on the north end of Area 6.

- Ms. Himes said that the PFAS will not be concentrated on the north end based on the results that the Navy has previously taken from the south end of Area 6. The water has approximately 3 ppt of PFAS max in it. The Navy will sample for PFAS during the advanced oxidation process to ensure that the concentrations remain below the health advisory. One issue Navy looked at was to make sure the treatment plant on the south end can be modified if necessary, to treat for PFAS.
- Ms. Newkirk indicated that at the last meeting, the residents asked Captain Army if the water is still being contaminated and he said he didn't know where it was coming from and couldn't isolate it. That is a concern.
 - Captain Army explained that as was stated previously, the Navy is not doing anything to put AFFF into the ground. As the Navy did its investigation across the stormwater complex, the Navy tried to understand the groundwater contamination from a decade of use at the air station. The Navy can't pinpoint a particular source.
- Ms. Newkirk asked if the Navy was going to put a big concrete moat around the base so the water can't go off base.
 - Captain Army stated that the Navy's first priority and action is to at least contain the contamination on the installation. The Navy is doing more storm water investigations and will do repairs to the storm water system to contain the contaminated water.
- Mr. Abraham indicated that the Navy sampled in September 2018 and again in September 2019. The Navy did not only find two PFAS compounds as was stated in the press. Every sample has found six PFAS compounds, not two. When the Navy gives the impression that they shouldn't worry because there weren't exceedances, the Navy is only talking about two PFAS compounds. One of the highest levels is Perfluorohexane sulfonic acid (PFHxS), a sister compound of PFOA. If all of the PFAS compounds are added together, 258 ppt is going into the surface water. This may not be a concern to the Navy but they are a concern to the residents and are above ATSDR minimum risk levels. Although we are talking about surface water, the Navy indicated that surface waters are connected to the aquifer hydrologically which is why the Navy is finding PFAS in drinking water wells. When the Navy calls residents and says that there were no exceedances, be honest with them about some of the other PFAS compounds. Residents need to know that so they can drink bottled water if they choose. It is misleading to try to blow this off and only discuss PFOS and PFOA exceedances.
 - Ms. Leibman apologized if the information that the Navy has been sharing is misleading. It is confusing which is why the Navy is conducting RAB meetings, public meetings and one-on-one discussions.
- Mr. Abraham asked why the Navy can't use ASTDR levels.
 - Ms. Leibman explained that the Navy's program is based on regulatory levels. PFAS is a special case where there is a lifetime health advisory. The Navy has made a decision to address this chemical. At the point when the EPA or state of Washington sets a regulatory level, the Navy will adapt to that new level. PFHxS currently is not regulated and is not part of the federal advisory so the Navy can't provide drinking water for that.
- Mr. Abraham indicated that the Department of Health has risk levels for the other compounds.

- Ms. Leibman stated that the information from the ASTDR will be used for risk assessments later in the program.
- Mr. Abraham pointed out that samples collected a year ago were just recently put on the website and people were not told that the surface water results were over the lifetime health advisory. The contamination isn't going away and nothing is being done to warn people.
 - Ms. Leibman thanked Mr. Rick Abraham for his comment.
- Mr. Newkirk had a question about the current landfill where there is 1,4-dioxane, what chemical is the Navy going to use to take care of that problem?
 - Ms. Himes explained that it is a process called advanced oxidation which breaks down the compound. The process uses ozone and hydrogen peroxide in a batch mix reactor to break everything down.
- Mr. Newkirk asked how the Navy is disposing of the hydrogen peroxide once it separates out?
 - Ms. Himes explained that everything breaks down to neutral compounds.
- Mr. Newkirk asked where it is spread?
 - Ms. Himes said that it is a surface discharge because there are no chemicals left at that point.
- Mr. Newkirk asked about Clover Valley Creek. When that was dredged (not just cleaned out), why was it pumped for four days straight (below levels that it should be kept at)? Mr. Newkirk indicated that if the Navy isn't going to be forthcoming with information, it is only going to get worse.
 - Ms. Leibman said the comment is appreciated. The Navy program that did the cleaning will have to be contacted to get the answers on the creek as that work was not done as part of the PFAS program.
- Ms. Jackson asked about Slide 25, is the Navy offering compensation?
 - Ms. Leibman explained that the process is if it is an easement, an appraisal is done to determine the fair market value of the land and the landowner is compensated. For leases, there is no compensation. However, the Navy is looking at doing easements.
- Ms. Jackson knows that the Navy's major focus is drinking water, is the Navy starting to look at how much PFAS is going to the ocean?
 - Ms. Leibman explained that the Navy does have a plan for that. At this time, the Navy plans to move into the third phase of the CERCLA program which is remedial investigation to delineate the horizontal and vertical extent of the contamination. Due to the Navy's need to prioritize funding on other drinking water programs across the area, this effort (RI) will not happen for a couple of years.
- Ms. Lester suggested that for anyone that has additional questions, they should put the question in writing and submit it to the Navy at least two weeks before the next meeting so the Navy has time to research the question and hopefully get a better answer.
 - Ms. Leibman agrees that this is a great idea. If anyone has questions before the next meeting, they can also get in touch with the public affairs officer who will pass the question on to the right Navy personnel. Providing questions a month before the RAB

meeting will give the Navy ample time to be prepared to provide the information/answer to everyone.

Review of Action Items:

1. Provide information on the petroleum questions that could not be answered.

Last item: Ms. Lester encouraged the public to stay after to discuss any issues further with Navy personnel. RAB members are here to hear everyone's concerns and help get answers. Ms. Lester also thanked regulators for taking time to come to the RAB meetings and thanked the Navy for its hard work. The way the government works can be frustrating and can take a long time to get answers.

The next RAB will be in April 2020.

Ms. Lester asked if there are any topics the RAB would like to hear at the next meeting. A RAB member pointed out that there is discussion of the club being closed in the near future due to funding. He asked if there was another meeting place available if this room is not available next April. Captain Army indicated that the club is not being closed and the room will be available.

The meeting adjourned at 6:48 pm.