MINUTES OF THE

PEARL HARBOR-HICKAM-KALAELOA RESTORATION ADVISORY BOARD (RAB) MEETING

OAHU VETERANS CENTER, HONOLULU, HAWAII

SEPTEMBER 25, 2024

I. ATTENDANCE: SEE ATTACHMENT A.

II. OPENING

Ms. Stephanie Kawasaki, facilitator of the meeting, opened the meeting at 6:00 pm and introduced Mr. Justin Kaʻahanui, who started the meeting with a pule. Mr. Kaʻahanui introduced himself and led everyone in song and prayer.

Captain Sam White, Commanding Officer of Joint Base Pearl Harbor-Hickam (JBPHH), introduced himself.

Colonel Monica Gramling, Deputy Joint Base Commander, introduced herself.

Mr. Robert Huber introduced himself.

Mr. Kyle Kajihiro, Restoration Advisory Board (RAB) member, introduced himself.

Ms. Helene Takemoto, RAB member, introduced herself.

Mr. Henry Curtis, the RAB Community Co-chair, introduced himself.

Ms. Kawasaki introduced Environmental Protection Agency (EPA) representative, Mr. John Chesnutt. Mr. Chesnutt, member of the EPA Superfund Program, introduced himself and EPA attendees.

Ms. Grace Simmons, Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response Office, introduced herself.

Captain White spoke about the agenda for the meeting. Captain White mentioned that comments from previous RAB meeting about font size and time constraints have been addressed.

Ms. Kawasaki introduced herself and presented the structure of the meeting, including time allotted for questions and comments and the addition of online participants.

III. DISCUSSION OF RAB CHARTER AND RAB MEMBERSHIP

Mr. Curtis proposed that two RAB members be removed from RAB membership since they are no longer active members and suggested a discussion of RAB membership for three applicants. Mr. Curtis mentioned that the current charter states that the military selects members of the RAB, but he suggested that membership selection be approved by the military and approved by the RAB. Captain White explained that

the Navy does not want to rush the process of a charter or membership and would like to finalize the charter before selecting a RAB member.

Mr. Kajihiro asked why they cannot work on both the charter and membership. He voiced concern that those applicants will be discouraged from participating. Captain White clarified that access to meetings and having a voice is not dependent on RAB membership. Captain White explained that investing more time into finalizing the charter and establishing the process to vote in new members will be more beneficial in the future.

Ms. Takemoto stated that the RAB guidelines, which are put together by the Department of Defense, do not say a charter is necessary to vote on new RAB members. Captain White explained that the Navy is in the process of establishing the number of active RAB members due to the RAB members that have passed away or have not been attending meetings.

Mr. Curtis proposed a change to the 1994 charter for the process of inducting new members. He suggested that the charter be updated to "Persons wishing to serve as RAB community members must submit the appropriate military form and be approved by the military and then approved by community RAB members at a subsequent RAB meeting."

Captain White asked if the charter establishes roles on how to make modifications to the charter. Mr. Curtis explained that the charter states that at any RAB meeting, the charter can be amended.

Captain White asked if Mr. Curtis is referring to a 1994 charter or 2015 charter. Captain White is under the impression that there is a charter signed in 2015. Ms. Jocelyn Tamashiro explained that during the previous June 2024 RAB meeting, she did not have information on a 2015 charter. Since June, it was found that there was a 2015 charter that had been signed by Ron Mobley. Captain White voiced concern that not everyone is operating off the same information and suggested that Ms. Tamashiro share the 2015 charter with all members for consideration for the next RAB meeting.

Mr. Curtis clarified that he was suggesting RAB membership be approved by both military and RAB members. Captain White agreed that approval by both military and RAB members should be considered after everyone looks over the 2015 charter.

IV. DISCUSSION OF SITE VISIT TO RED HILL PFAS INVESTIGATION AREAS

Captain White explained that the Navy will proceed with a site visit once the charter is finalized and the RAB membership has been established.

V. TECHNICAL PRESENTATIONS

Ms. Jocelyn Tamashiro introduced herself as the Environmental Restoration Manager at NAVFAC Hawaii. Ms. Tamashiro explained that the Environmental Restoration Program is responsible for addressing historic releases of contaminants to the environment. The program does not address any releases from current facilities that are in operation, such as the Red Hill Drinking Water issues. Ms. Tamashiro described the time allotted for questions after the presentations.

Ms. Tamashiro described the handout containing an updated summary of active projects and upcoming documents and milestones, as well as the QR code that contains a link to the environmental concerns survey.

Remediation Status Update Pearl Harbor Sediment, Joint Base Pearl Harbor-Hickam – Ms. Kim Markillie, NAVFAC Pacific

Ms. Kim Markillie thanked everyone for attending and introduced herself. She has managed the Pearl Harbor Sediment projects for the Navy's Environmental Restoration Department for the past 15 years. The last presentation for this site was in February 2016 to present the Proposed Plan for remediation. The Pearl Harbor Sediment Site is located within Joint Base Pearl Harbor-Hickam. Slides 2 and 3 presented a brief outline of the presentation and a map of the site location.

The Pearl Harbor Sediment Site encompasses approximately 5,055 acres of submerged lands within Pearl Harbor and approximately 36 miles of shoreline. The harbor itself is made up of four major lochs: Southeast Loch, West Loch, Middle Loch, and East Loch. The majority of the harbor is periodically dredged to maintain water depths required for vessel navigation. Pearl Harbor is surrounded by approximately 110 square miles of upland watershed that drains into the harbor, which makes the harbor a natural sink for sediments and chemicals coming down from the watershed. Potential sources of chemicals draining into the harbor include past and present Navy activities and non-Navy commercial, industrial, urban, and agricultural activities. Today, the current land use for most of the areas surrounding the harbor is primarily for Navy operational facilities as well as housing for base personnel. The waterway is currently off limits for public recreation and is strictly patrolled and limited to Navy vessel activities due to security reasons. Fishing is restricted in the harbor, and no recreational swimming is allowed.

Investigations at this site began in 1992, culminating with the signing of the Record of Decision in September 2018 by the Navy, DOH, and EPA. The site is currently in the remedial design and construction phase. The remediation effort at this site is being implemented in multiple phases spanning multiple years. Following the completion of the planning documents, actual in-water remedy construction was initiated in 2021, and the first four phases were completed in March 2023. The next phase of remedy construction, designated as Phase 5, is anticipated to start in 2025.

The investigation started with a more widespread sampling location distribution, then subsequent sampling events became more focused to specific areas of concern based on the results of previous investigations, presented on Slide 5. An extensive list of 243 chemicals of potential concern, which included metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), dioxins, pesticide compounds, and ordnance compounds, were analyzed in the 1996 Remedial Investigation (RI). The results from the 2009-2012 investigations narrowed the list of chemicals of concerns to 10 chemicals that included metals and PCBs. Bottomfish are the primary representative species for the site following the 1996 investigation.

Three remedial action objectives (RAOs) were developed in the 2012 Feasibility Study to reduce seafood consumption human health risks, reduce direct contact risks to sediment-associated fish, and reduce risks to waterbirds. The success in achieving the RAOs will be determined through long-term monitoring after the remedial action has been implemented.

The site was divided into ten decision units (DUs), six of which were recommended for remediation. These DUs were assigned a selected remedy, which include enhanced natural recovery, activated carbon treatment, and dredging, based on the different levels of chemical concentrations and the ongoing natural recovery that was based on data from previous investigations. The remedy types and implemented remedy for each

DU were presented on Slides 9 and 10. Slides 12–15 presented the remedial actions implemented for those six DUs.

The Remedial Action Work Plan is updated with each phase of the remedial work and will be updated as additional phases of remediation are completed. The remaining remedy components will be implemented as part of Phase 5, scheduled to being in 2025. The Long-Term Monitoring (LTM) Work Plan is anticipated to be finalized this fall and the first LTM sampling event is expected to occur in late 2025. Details of the LTM progress will be presented in a future RAB presentation for this site.

Question 1 (Q1): (Mr. Kajihiro) I recall that there were radiological contaminants from cobalt-60 in the sediment near the shipyard. How has that been treated in this plan?

Answer 1 (A1): (Ms. Markillie) That is under a different program. It is not part of the Environmental Restoration Program, so it is handled under the Navy's Nuclear Power Program.

Follow-on Comment (C1): (Mr. Kajihiro) Would it not be in the same areas?

C2: (Ms. Markillie) We did not have radionuclides detected as part of our investigations.

Q2: (Mr. Curtis) Can you pull up the map of Pearl Harbor for a moment? Can you show where the Confined Disposal Facility is on Waipio Peninsula?

A2: (Ms. Markillie) There are four disposal cells that have been established on Waipio Peninsula. We are using cell one and cell four.

C3: (Mr. Curtis) There is a road from those that go up and out?

C4: (Ms. Markillie) Yes.

Q3: (Mr. Curtis) You said there is no fishing but pole fishing?

A3: (Ms. Markillie) There is designated pole fishing on portions of the Navy base, and it is catch-and-release only.

Q4: (Mr. Curtis) Have you done any PFAS analysis on the sediment?

A4: (Ms. Markillie) We have not done any PFAS analysis as part of the Pearl Harbor Sediment project. However, we are going to be looking at PFAS in sediment as part of Jan Kotoshirodo's project, and she will be discussing that in the next presentation.

Q5: (Mr. Curtis) You said that the work plan is being reviewed by regulators and other stakeholders, and when it is final, it will go to the public. Which section are RAB members in? The work plan or when the whole document is already finalized and over?

A5: (Ms. Markillie) It will say final, but you are always welcome to make comments.

C5: (Mr. Curtis) I believe RAB members were allowed to make comments on documents as they were being finalized because our input was valuable in the work plan itself.

C6: (Ms. Markillie) I agree. Your input is valuable.

C7: (Mr. Curtis) So can we be sent the electronic version of the work plan that is being finalized?

C8: (Ms. Markillie) Absolutely.

Q6: (Ms. Takemoto) I just want to follow up on Kyle's question regarding radionuclides. Because you did not include that as the list of things that you tested, but you said you got non-detect results.

A6: (Ms. Markillie) It is part of a different program. And they have tested it. I cannot speak to their program. I can get that information for you. Follow-up response: An annual report titled Environmental Monitoring and Disposal of Radioactive Wastes from U.S. Naval Nuclear-Powered Ships and Their Support Facilities (see Figures 8, 9, and 10) has this information. The link to the website is https://www.energy.gov/nnsa/articles/naval-reactors-annual-reports. Additional questions can be directed to the Pearl Harbor Naval Shipyard Public Affairs Office at (808) 474-0272.

C9: (Ms. Takemoto) It depends on where it is non-detect because if it is within some of the sediments that you have taken, and if there was some, then you've got it on dry land now trying to deal with the dredge spoil and dry it all out. I saw an EPA report in the 1970s that did specify that there were some radionuclides in Pearl Harbor. I know it goes to a different place, but is that an issue or not? You said there's non-detect, but where was it non-detected?

C10: (Ms. Markillie) Our team is given those reports, and we made sure that those locations were not within our remediation footprint.

Q7: (Mr. Huber) Is the inventory of AFFF [aqueous film-forming foam] from our past history with Navy and concurrent inventory of the AFFF available for us to see? As well as any of the plating that has been done in the past or plating that is concurrently been done available so that we can see the amount and make a determination of where that inventory is going and what the uses are for.

C11: (Ms. Markillie) I cannot speak to that, but can anyone on our team speak to that? Or we can get back to you on that.

A7: (Ms. Tamashiro) The list of facilities that may have used PFAS-containing products, if they are operational facilities, then, as the military, we are not allowed to disclose which facilities they are. We can say a building number, but we cannot specify what that building is used for. And it would be considered controlled unclassified information.

C12: (Mr. Huber) But just the amount of what is being used and the questions that could arise from the usage wherever it is being sourced from or to. We just want to be able to make a determination of why it's being used. And the amount of inventory in the past and the future and concurrently.

C13: (Ms. Tamashiro) The project managers are saying that we did not assess past usage or volumes or quantities. That information is not available to us. We did not dig that deeply into finding that specific type of information. We were just looking at facilities themselves that may have used PFAS-containing products. We did not quantify anything.

C14: (Mr. Curtis) It is curious because when you are looking for pollution, you start where the pollution is and move upstream. But when it is PFAS, you start where the buildings might have used it.

Q8: (Mr. Kajihiro) One question is, can we get the Navy Nuclear Program to report to us on their progress? And second question is, I have heard anecdotes from former workers who talked about sandblasting that was happening in Middle Loch when those old ships were there. Do we have historical records of what was deposited, what was removed in sediments? That would seem like that would be potentially hazardous if there was lead or anything like that in the paints.

A8: (Ms. Markillie) The first question, I cannot answer. I apologize. I do not know if that information is classified or not. I can research that and get back to you. [Follow-up answer: Please see the response to Question 6.] The second question is all of the samples that we did collect, all the sediment cores, in Middle Loch indicated that there were not levels of contaminants that were harmful to human health and the environment. And therefore, that is why it is green on the map, which means no active remediation.

Q9: (Ms. Sutton) You had mentioned that there were samples collected that they tested to see if there was any contaminants and that it was non-detect. Are those samples available to the public to see?

C15: (Ms. Markillie) The actual samples? The physical samples themselves?

C16: (Ms. Sutton) No, the results.

A9: (Ms. Markillie) Yes, all of our documents are in our information repository. They are available to the public.

Q10: (Mr. Higa) I just had a question regarding the original levels of contaminants that were discovered and inspected in 1992 versus any testing that was done currently in 2024. As far as the contaminant levels, how much of a difference did all this remediation do?

A10: (Ms. Markillie) We have not had the opportunity to sample for our long-term monitoring program to date. We are going to be implementing that in 2025. We will have data results following that sampling. We will be taking both fish tissue as well as sediment core samples.

C17: (Mr. Higa) Just to follow up because I know the taxpayers that are funding all this remediation are paying hundreds of millions of dollars. I'm just wondering if that money is well spent or it's just something that the Navy's showing that they're doing to address all the concerns from the public.

C18: (Ms. Markillie) We are following our CERCLA [Comprehensive Environmental Response, Compensation, and Liability Act] process under the Superfund Act and yes, we are using taxpayer dollars to do that. I believe that we are using them wisely. We are implementing the most extensive remedial construction project for the Environmental Restoration Program, and it's important to address the levels of contamination that we do have in the harbor in order to meet our remedial action objectives. So those remedial action levels are pretty low, and we're doing what we can to address that in graded form. So dredging is the highest contamination that we're removing and then it goes down from there.

C19: (Captain White) I think he asked a very valid question. It would be very interesting to know what the contamination level was in 1992 and what that contamination level is in 2024. But I think, in her response, what was missing is she said that we should have that information in 2025. I think at that time, you'll be able to look at the numbers. You and I will both look at the numbers and say, "Was that investment worth it and what was the result?" I hope that answers that question.

Q11: (Ms. Espiritu) I have a quick question about the data from the sampling. Just to follow up on Tara's question, where can we access it? How can the general public actually get access to the reports? I'm mind blown that your statement that 92% of the harbor meets our remediation action objectives, when at the same time we have Department of Health warnings. So just some questions on who is setting those standards, where can we find that, how do I reconcile that when you're telling us we cannot eat the fish but it has hit your remedial action objectives and so we're going to step off and don't need to do anything more.

A11: (Ms. Markillie) That's an excellent question. Let me address that part first. Although sediment is safe, and that's what is indicated by the green, the levels of PCBs in fish samples that we collected in some of these areas were still above the Department of Health's criteria for issuing that fish advisory. That fish advisory is on the Department of Health's website, and we're going to continue to work with EPA and DOH to monitor fish tissue levels. And hopefully at some point through natural recovery from clean sediment coming in from the watershed, those fish tissue levels will improve and they will reach levels where DOH can lift that fish advisory. I don't have a timeline on that, but it's the sediment levels that meet the criteria, which obviously, those fish interact with the sediment. It's kind of a lapsed thing. We remediate the sediment, it's going to take a while for the natural environment to recover. The specific question you had regarding the results of all of the investigations that we've done is in our information repository. Those are at Hamilton Library as well as Aiea Public Library.

C20: (Ms. Espiritu) The other question was who set the remedial action objectives and where can we access that information? And is there any digital copy of those data? Because I've gone to Aiea Public Library and they're like "I don't know. There's this whole section of things." They literally pointed me to a whole wall of documents.

C21: (Ms. Markillie) We have electronic copies of all of the documents. I'm not sure if the Department of Health has all of them on their website. Not all of the historical ones are on their website, but we do have electronic copies of those. The remedial action objectives were established in the Feasibility Study.

C22: (Captain White) Is there any place online that she can go get it or see it?

C23: (Ms. Markillie) No, sir. There's no place online that is accessible.

Q12: (Mr. Huber) I have a question on the fish that are going to be used for the long-term objective. Will they be planted weke (i.e., goatfish)? And will you be planting oysters? The natural thing that was occurring in this bay back in the royal's day.

A12: (Ms. Markillie) We are not planting the Bandtail goatfish. Those we catch from their natural environment. We want them to have been fingerlings all the way through to adult in order to determine what the PCB concentration is in tissue. For oysters, I cannot answer that.

Q13: (Mr. Lau) You mentioned earlier that the harbor is dredged on a regular basis because ships need to pass. I know that sediments build up over time and it has to be deep enough for the draft of the ships so they do not run aground. Where does the dredge material get disposed of? Does it go to PVT? Where does it go? And did you do a NEPA [National Environmental Policy Act] process for that action?

A13: (Ms. Markillie) That's not part of my program. So, I can't really speak to that.

C24: (Mr. Lau) Maybe the captain for the Joint Base could answer that question.

C25: (Captain White) I'll have to get back to you on that. Does anybody have an answer on where that dredging material goes?

C26: (Captain Sullivan) I'm not sure when the last time we dredged was. We'd have to do some research. I do not know off the top of my head. So, we would have to get back to you. Follow-up response: Dredged material that is not located within a CERCLA remediation footprint and that is not suspected of containing munitions, may be tested for ocean disposal in accordance with the Marine Protection, Research, and Sanctuaries Act. Following a very specific evaluation and testing protocol to ensure that the material will not adversely affect human health and the marine environment, this material may qualify for ocean disposal and permitted by the EPA and the US Army Corps of Engineers to be taken to a designated ocean disposal site. Material that does not qualify for ocean disposal, must be taken to the Confined Disposal Facility on Waipio Peninsula, allowed to dry out, then characterized for upland disposal using incremental sampling methodology in accordance with the State of Hawaii Department of Health Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material, (DOH 2017), Following characterization and disposal acceptance, the material is then taken to PVT landfill for final disposal.

Per- and Polyfluoroalkyl Substances (PFAS) General Project Updates, Join Base Pearl Harbor-Hickam – Ms. Jocelyn Tamashiro, NAVFAC Hawaii

Ms. Tamashiro provided a brief overview of presentation topics along with an outline of the CERCLA process on Slide 2.

Ms. Kotoshirodo introduced herself as one of the Remedial Project Managers (RPM) supporting the Navy's Environmental Restoration Program. Slide 3 defined PFAS as a family of man-made chemicals with useful properties, including resistance to water, grease, and/or stains, and firefighting foam. PFAS have been produced and used in many products since the 1950s, but its use has greatly reduced in the United States over the past 10 years. The main source of PFAS on Department of Defense installations is aqueous film-forming foam (AFFF), used for fire suppression.

A map of the sites currently evaluated for PFAS was presented on Slide 4; areas included Pearl City Peninsula, Richardson, Camp Smith, the Red Hill Bulk Storage Facility, and Pearl Harbor main base. Slide 5 presented the seven current PFAS remedial investigations.

Ms. Tamashiro presented the four locations included in the RI: Building 1871 Former Industrial Waste Treatment Plant (IWTP), Building 1526, Building 1665, and Shipyard Fire Training Area. PFAS investigations at the former IWTP began in 2018 and the goal for the RI is to delineate the extent of PFAS contamination in soil and groundwater. The contract was awarded in July 2024 to continue the ongoing RI at IWTP and begin PFAS investigations at the other three sites due to their proximity to the former IWTP, as presented on slides 6 and 7.

The Former Pearl City Fuel Annex, presented on slide 8 and 9, had a potential release of PFAS from using AFFF to extinguish a 1985 fuel tank fire, and PFAS was detected in waste characterization soil samples during the 2015 Non-Time Critical Removal Action. During the 2021 RI Addendum, PFAS in soil and groundwater samples were above 2021 EPA regional screening levels (RSLs). The contract to continue the work for the 2021 RI Addendum was awarded in March 2023.

Ms. Rangel introduced herself and presented the Red Hill Fuel Bulk Storage Facility. There are two known sources of PFAS at the facility: the former 200-gallon AFFF tank associated with the Former Slop Tank and the November 2022 AFFF Release at Adit 6, presented on Slide 10. A correction to what was discussed during the previous RAB, the Draft RI Work Plan is proposing that subsurface soil sampling will occur to a maximum depth of 20 feet, not to bedrock.

Mr. Lam introduced himself and presented Building 612 at Camp Smith on Slide 11. AFFF was previously stored at the building, but the building does not currently store AFFF. There are no known releases of AFFF at the building. Site inspection (SI) samples for surface and subsurface soil were above the project screening levels based on the November 2023 EPA RSLs. The RI was awarded in August 2023, and the Draft Work Plan is currently being developed.

Ms. Griswold introduced herself and presented Building 67 Former Plating Facility on Slide 12. A 2020 site-specific SI was conducted to evaluate whether contamination was present due to a potential release of processed wastewater from the former plating tank sump at Building 67, which operated from 1981 to 2004. Soil and groundwater samples were collected. Results from soil samples identified the presence metals, specifically chromium, which exceeded the project screening levels. Groundwater results indicated the presence of chromium and cyanide, which also exceeded the project screening levels. PFAS in groundwater samples were below the 2023 EPA screening levels. Soil samples were not collected and will be evaluated in the upcoming RI. The RI was awarded in April 2024, and the Draft Work Plan is being developed.

Building 1613/1721 and Building 1554 are located near the upper tank farm on the main base at the end of the Red Hill tunnel, as presented on Slide 13. There were two accidental AFFF releases for Building 1613/1721, but no known releases for Building 1554. The SI samples for soil and groundwater were above 2023 EPA RSLs at Building 1613/1721. The RI for these locations was awarded June 2024 and the Draft Work Plan is being developed.

Ms. Kotoshirodo presented two locations on Slide 14: the Former Richardson Fire Fighting Training Area and the 2019 Barge Fire at the boat house. SI samples for soil and groundwater were above screening levels at the Former Fire Fighting Training Area. Samples have not been collected at the 2019 Barge Fire location. The contract was awarded in July 2024, and this RI will include a component of sediment samples in the harbor.

A map on Slide 15 presented additional PFAS investigation locations, indicated by yellow squares: Building 68 at Manana in the Pearl City area, Building 54 Former Hangar on Ford Island, and Building 680 on Pearl Harbor Main Base. Soil and groundwater samples will be collected at these locations. There are no known PFAS spills or releases at these 3 locations, however the Navy is planning to collect samples to evaluate if a PFAS may be present from a past release. Green dots indicated proposed PFAS sediment sample locations in the harbor. Sediment sampling will be focused on locations where PFAS has been detected in soil or groundwater at upland locations and there is a pathway to the harbor. These are preliminary locations, as work plans still need to be prepared.

Q1: (Ms. Takemoto) In a couple instances, specifically more for Red Hill, you're going to be sampling the groundwater and you're putting in additional wells, but one of the purposes of doing a remedial investigation is to determine the extent as well as the type of contamination. Is the intent to just sample the wells in the Red Hill area or are you planning to go outside?

A1: (Ms. Rangel) As of right now, we're only looking at within the facility, as a first step for delineation. There's only one well that had a very slight exceedance. It was 4.1 [parts per trillion] that was on the boundary, with a screening level of 4 [parts per trillion]. So right now, we're just going to sample for a year and install additional monitoring wells within the facility. And then, based on that data, if we need to step out, we will.

C1: (Ms. Takemoto) To prove a negative, if you go outside the boundary and find that you're not picking up the PFAS, at least you'll have some kind of reference point. The groundwater does move, and you've got to look at where the flow is. When I used to do projects, I would track to where the plume is going, not just within the facility I'm working in to ensure that the contamination doesn't spread any further. So that concerns me a lot because the extent of the remedial investigation is how are you going to control that if you don't know where your plume is going, and you just sample within. I think you can come up with some false negatives of your report.

C2: (Ms. Rangel) Right now, we're just trying to figure out nature and extent, looking at the source area first, especially within the facility. And that is also where our background study is going to come into play to see if what we're seeing, not at Area A because we do have the known release, but definitely towards the west side of the facility. Because we don't have any known sources, that's part of the reason we're going to do the background study is to see where that….

Q2: (Ms. Takemoto) Correct me if I'm wrong. Ernie did you guys take some samples outside and found some PFAS?

A2: (Mr. Lau) Thank you for that question, Helene. I see James Sullivan standing up because actually Navy, under the Red Hill Response, under James' leadership, did do baseline testing of multiple monitoring well locations on Navy property and outside Navy property. They found exceedances at around eight or so different locations within the property and also outside the property, including a location that looks like an Aliamanu Crater area that was quite high too. So, I totally agree with you. The testing needs be done at all the monitoring well locations that are under the Red Hill Response for the Closure Task Force, but under this investigation, so that you're not looking at things through a pipe or tube that you're only going to see a small microcosm and think that everything around there is okay, but in reality, you look at the whole world in the area, you'll see a much different more complete picture of the extent of the contamination.

C3: (Ms. Tamashiro) To answer the question about the sampling off base. This came up at our last RAB meeting and I just want to reiterate that following the CERCLA process, and we have Department of Defense policy, we have to start sampling where we have the known sources. So, because we have two areas, one with a known AFFF release at Adit 6 and one with a groundwater exceedance on base, those are the two source areas that we're starting with and we're going to monitor for a year doing quarterly sampling. So, if we find that contamination is extending off-base after the 1 year in coordination with the Environmental Protection Agency and the Department of Health, we will evaluate stepping off Navy property and delineating off site. It's not that we're not going to do it, it's just not at this time.

C4: (Captain Sullivan) Just to clarify, and like Mr. Lau said. What Charlotte is referring to is all part of the remediation investigation that is done specific to this site. That is not all-inclusive of all of the other Navy efforts, the remediation, the background sampling that's done for PFAS, as well as all of the other groundwater monitoring well tests that are done. So, she's referring to specific to this site, to this process, but it is not all-inclusive as Mr. Lau said that the Navy is doing. A little bit outside of the scope of this meeting because it's more focused on the actual Red Hill remediation that we have many other forums that we discuss those. Not necessarily the intent of this meeting, so thank you.

C5: (Ms. Takemoto) The reason why I bring it up is because I live nearby, and I'm very concerned where the plume is going. As I said, you know you've got some contamination, but you also heard from Ernie that there's contamination outside. I understand that's a different Red Hill initiative elsewhere. There's got to be some coordination and sharing the data. It's not a segregated process, and it should be all-inclusive. To really tackle the problem, it's like somebody's this ingredient here and somebody's doing this ingredient there, and you won't get a solution. I understand that you're working within the installation, but if you're contamination goes beyond the installation, that should also be looked at and should be followed. You wait a year, so how much further along is the plume going to move? Is it going to increase? It is going to be larger and going down? So, I don't quite agree with just focusing on the installation itself.

C6: (Ms. Tamashiro) The data that is collected by the other Navy programs will be incorporated into our data as well and used to evaluate risk. We are in communication with those programs, and we coordinate for all of our field efforts. We share data. I believe we will be including the appropriate data in our risk investigation.

Q3: (Mr. Curtis) I have three, but one's a comment. One, we're only looking at historic but not current emissions. We don't know which buildings use it and therefore when you find it, how do you know if it's current or historic? Just an observation. Two questions. One, all Navy boats had AFFF and there was a power plant, at least one built during the war which I would assume would have AFFF to fight any fires. Were those investigated? The other question is, you're sampling Pearl Harbor sediment where you know there's a known pathway. So, what you're saying is that the entire green area that you search for all other chemicals for, and there's now clear of all other chemicals, you're not checking for PFAS on those because there was no pathway for checking for the other chemicals. But you were searching anyway and you're not going to search for PFAS, correct?

A3: (Ms. Kotoshirodo) PFAS an emerging contaminant, that is new and we are evaluating and assessing. For Pearl Harbor, and it was the same approach shown on the maps and information that Kim shared for the (Pearl Harbor sediment) remediation for those chemicals of concern that were evaluated for that investigation and remediation. We're now looking at considering PFAS, but in both instances, when it comes to the harbor and the sediment, it's tying it back to how our CERCLA investigations progress. We always base it on where it most likely came from. The source for the contamination in the sediment is from some place or places or locations on the land side. For PFAS specifically, we're looking at PFAS sources. Whereas in the earlier stages of the Pearl Harbor project, we did similar but not for PFAS sources. That's why you may have other chemicals such as PCBs sources or metals sources depending on the type activities or historical activities that occurred in different areas of the base. There really are two separate groups of sources. I don't know if that answers your question. Some of it is just the timing of the Pearl Harbor sediments project, which has progressed to the remediation phase, and now we're planning to initiate our evaluation for PFAS.

Q4: (Mr. Curtis) You had a power plant on base, and all ships are required to have AFFF. Is any of that being analyzed?

A4: (Ms. Kotoshirodo) For our preliminary assessment, we did not assess the ships or anything on the ships. Our assessment was everything on the land side, the facilities. The second part of your question, the power plant. Our preliminary assessment did not identify a particular AFFF or PFAS activity or system at the actual power plant. Presumably, it would have been something that would have been supported by federal fire or fire departments who would have AFFF, but we didn't identify any AFFF systems at the actual power plant.

Q5: (Mr. Kajihiro) First a comment. I just feel kind of depressed at the extent of this contamination and knowing that it's going to continue to unfold and emerge. It's good to know other sampling is going on, but it seems like the compartmentalization is the problem. Correct me if I'm wrong, but is there a formal way that you coordinate your investigations for PFAS or is it just informally sharing data? The other question is related to the scoping process. Is that a formal process where there are notes and opportunities for documentation of that process or is it just something that you just meet with regulators? Would that be a place where regulators could then suggest maybe you should be testing with other areas? These kinds of questions that we're asking, would that be the purview of regulators to then expand your scope?

A5: (Ms. Kotoshirodo) Second part is for the scoping. That is a standard process for us when we are developing work plans for sampling. Scoping is usually that initial phase of the work plan. Sometimes we call it in-progress work plan. It might be the full document, sometimes it is just the key components of where we want to collect samples, maybe the maps, the rationale of where we want to sample, why we would sample those areas, the type of samples – soil, groundwater, sediment. We have internal Navy subject manager experts that we undergo reviews with, and we also talk with the regulators because part of it is we want to have that initial discussion before we send out a full-blown work plan. At least before they see that, we want to have at least some discussions so we are sort of on the same page and we do not get a big document that they do not agree with.

C7: (Mr. Kajihiro) It sounds like it's kind of informal rather than formal like in an Environmental Impact Statement process.

C8: (Ms. Kotoshirodo) Yes, it's informal.

C9: (Mr. Hurff) What we do under the CERCLA process is guided by a long stack of guidance that is issued both by EPA, DOH, Department of Defense, and Department of the Navy. So, there is a very step-wise process that we got through on each of these sites, first looking for the site discovery, happening under the PA/SI process in this case. But, it can happen through other processes. There are ways that sites are brought into the program through, in this case, the NPL, National Priority Listing site, Joint Base Pearl Harbor. The regulators can bring sites up, the Navy can bring sites up. There is a process in the Federal Facility Agreement that allows all of these sites, and that's how many of these sites are coming now. When you first discover a site, you start off with, "What do we know? How do we start building our knowledge?" You have a conceptual site model, and that conceptual site model would say, "I have something that's of concern. If there was a release, where did it get to? Where is it going to? How should we sample? Where should we sample?" All of these decisions are done in concert with our regulatory partners. And they absolutely will tell you if they think you're heading the wrong way, if they think you need to sample not just on this table but over at that chair over there. That is part of the process. You're going to see an awful lot with the RIs that are underway right now. You have a fairly unique opportunity because there's going to be an immense amount of work. To see the conceptual site model process evolve, where you understand not just what happened but how everyone is going to be assessing the release, determining what risks there are, determining that nature and extent. This is also an iterative process. Realize that for what you're going to see right now, this is really the beginning. I know that the timelines seem like they're very, very long. They can be for going through a full remediation process, but these sites are moving along at a pretty good clip thus far. With the Red Hill area, with the agreement for the well monitoring there, those wells are actually, the shared wells are there for the Red Hill Response, that we're also sampling for the PFAS. So, there absolutely is a coordination effort, there is data sharing, there will continue to be data sharing.

And, while I have the mic, just to drop in on your other question about if there is something new, how do you know. There is actually a Department of Defense policy that if there is a release of PFAS material that it is reported. That's part of what happened with the Adit 6 release. There is a response to if there is a spill or release. That's the initial response. That's the clean up quickly, isolate the soils, the grab it get it on plastic, try to contain the material. The long-term response for that is where this program comes into play under CERCLA, where we start that process. So, in the example here, for the incident at Adit 6, that's a site that just had a release and this is already in the program. So, there is a very well-defined way that if there is a future release or release now, we do have a way to capture that, both as an initial response to try to capture as much of what we can at the point of release. That's honestly the easiest time to capture such materials. And for the long-term response, we are absolutely going to be addressing that as well.

VI. SCHEDULING OF NEXT RAB MEETING

Captain White asked Mr. Curtis to clarify when the next RAB meeting would be held. Mr. Curtis proposed Wednesday, December 11, 2024. There were no comments or objections; therefore, the next RAB meeting was scheduled for December 11, 2024.

VII. QUESTIONS AND ANSWERS

Q1: (Ms. Brady) On Building 67, you mentioned chromium. And I'm wondering, is it chromium 3 or chromium 6?

A1: (Ms. Griswold) It was hexavalent chromium.

C1: (Captain White) Chromium 6.

VIII. CLOSING

Captain White gave closing remarks, thanked attendees for coming, and adjourned the meeting at 8:10 p.m.

For additional information, please contact:

Public Affairs Officer, Code 09PAO
Naval Facilities Engineering Systems Command, Hawaii (NAVFAC Hawaii)
400 Marshall Road
JBPHH, HI 96860-3139
(808) 471-7300
Email: NFHI_PAO_DL@us.navy.mil

Project reports discussing environmental investigation and restoration efforts that were discussed tonight can be obtained from the following Navy information repositories:

Naval Facilities Engineering Systems Command, Pacific 258 Makalapa Drive, Suite 100 JBPHH HI 96860 Tel. (808) 472-1428	University of Hawaii at Manoa Hamilton Library Hawaiian and Pacific Collection 2550 McCarthy Mall Honolulu, HI 96822 Tel. (808) 956-8264	Pearl City Public Library 1138 Waimano Home Road Pearl City, HI 96782 Tel. (808) 453-6566

ATTACHMENT A

LIST OF ATTENDEES

PEARL HARBOR-HICKAM-KALAELOA RESTORATION ADVISORY BOARD (RAB) MEETING

OAHU VETERANS CENTER, HONOLULU, HAWAII

September 25, 2024

1. Laura Acasio
2. Melodie Aduja
3. Cowan Azuma
4. Ned Black
5. Kat Brady
6. Lynn Brockway
7. Alan Burdick
8. Maverick Carey
9. John Chesnutt
10. Jocelyn Chong
11. Donielle Comeau
12. Henry Curtis
13. Mike Dau
14. Karen Davis
15. Pete Doktor
16. Dani Espiritu
17. Dayna Fujimoto
18. Janice Fukumoto
19. Noah Germolus
20. Rachel Gilhooly
21. Monica Gramling
22. Natasha Griswold
23. Niels Heidner
24. Lawrence Higa
25. Robert Huber
26. Andrew Hunt
27. Stephen Hurff
28. Kara Jernigan
29. Jeff Johnson
30. Justin Ka'ahanui
31. Kyle Kajihiro
32. Wray Kakugawa
33. Camille Kalama
34. Stephanie Kawasaki
35. Erwin Kawata
36. Pat Kelly
37. Robert Kleinman
38. Jan Kotoshirodo
39. Francie L. Whitfield
40. Justin Lam
41. Ernie Lau
42. Chris Lichens
43. Joyce Lin
44. Rosalie Luo
45. William Manley
46. Kim Markille
47. Madison Owens
48. Cherry Pascual
49. Carrie Plath
50. Ross Prizzia
51. Teresa Quiniola
52. Charlotte Rangel
53. Rob Sadorra
54. Steve Sahetapy-Engel
55. Ellie Shimatsu
56. Grace Simmons
57. Dan Smith
58. James Sullivan
59. Tara Sutton
60. Helene Takemoto
61. Jocelyn Tamashiro
62. Janice Toma Shiira
63. Joseph Tracy
64. Bryceson Tugade
65. Belinda Turran
66. Cruz J. Vina Jr.
67. Glenn Wakai
68. Wendell Wen
69. Francie L. Whitfield
70. Sam White