BOARD OF WATER SUPPLY
KA 'OIHANA WAI
CITY AND COUNTY OF HONOLULU

630 SOUTH BERETANIA STREET • HONOLULU, HAWAI'I 96843
Phone: (808) 748-5000 • www.boardofwatersupply.com

RICK BLANGIARDI
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MEIA

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April 17, 2025

Red Hill Water Treatment Facility EA Project Manager
Naval Facilities Engineering System Command Hawaii/EV21, Building 55
400 Marshall Road
Joint Base Pearl Harbor-Hickam, HI 96860-3139
RedHillEA@HHF.com

Re: Comments on the Draft Environmental Assessment (EA) for Red Hill Water Treatment Facility, Joint Base Pearl-Harbor Hickam, O'ahu

Dear Sir or Madam:

The Honolulu Board of Water Supply (BWS) appreciates the opportunity to provide comments on the Draft Environment Assessment for Red Hill Water Treatment Facility Joint Base Pearl-Harbor, O'ahu (EA). The draft EA includes an assessment of certain potential impacts associated with constructing and operating a permanent water treatment facility, and connecting an interim water treatment facility, to treat and deliver Red Hill Shaft water to the Navy's drinking water system (Proposed Action). In the draft EA, the Navy assumes without explanation or analysis that permanent treatment of water from the Red Hill Shaft well is necessary; this conclusion is reached without identification of the specific contaminants present at the well or consideration of the level of contamination present in the aquifer. The National Environmental Policy Act (NEPA) requires agencies to identify in any environmental document, including EAs, the purpose and need for a proposed project and failure to do so renders the subject document invalid.[1] Without an identified purpose for the Proposed Action, members of the public cannot meaningfully evaluate the acceptability of the Proposed Action and

[1] The Navy has included a purpose and need section in the draft EA. This section, however, assumes without evidentiary support that treatment is necessary to create a capture zone for contaminants that would otherwise potentially move through the aquifer and that treatment is necessary to render the water suitable for any beneficial purpose including serving as drinking water. Without any meaningful understanding of the contaminants that the Navy understands must be present and need to be treated, it is impossible to understand why construction of the proposed facilities is needed.

Navy decisionmakers cannot meaningfully consider whether to proceed with the Proposed Action.[2] It deprives the BWS and the public of the ability to meaningfully comment on draft EA or evaluate the Proposed Action. Further, as is detailed below, the Navy's analysis in the draft EA does not include a thorough evaluation of all potential environmental effects of the Proposed Action and such analysis is not possible unless and until the Navy identifies the contaminants that are present and the treatment which is necessary to render the Red Hill Shaft water supply safe for potable uses. Until such analysis is done and the public is given the opportunity to review and comment thereon, the requirements of the National Environmental Policy Act (NEPA) cannot be met. Accordingly, the BWS requests that the Navy further consider the potential impacts of the Proposed Act on the environment and public interest as described below prior to taking any further related actions.

I. Navy's NEPA Requirements

NEPA requires all federal agencies to evaluate and disclose to the public the potential environmental impacts of proposed actions. 42 U.S.C. § 4332(C). Agencies must "carefully consider . . . detailed information concerning significant environmental impacts" and NEPA "guarantees that relevant information will be made available" to the public. *Dep't of Transp. v. Public Citizens*, 541 U.S. 752, 768 (2004) (quoting *Robertson v. Metho Valley Citizen Council*, 490 U.S. 332, 349 (1989)). A cornerstone of this analysis is the identification of the purpose and need for the proposed action as this defines the critical components of that action as well as the potential alternatives thereto. The NEPA analysis must also consider the whole of the action and evaluate all potential significant direct, indirect and cumulative impacts thereof. NEPA requires agencies to take a "hard look" at all potential environmental consequences of a proposed action. The NEPA document must include sufficient evidence and analysis to support the agency's conclusions and findings. Where some information that is essential to an environmental analysis is missing, an agency has an obligation to obtain the information where the cost associated with gathering it are not unreasonable.

Here, the Navy's Proposed Action is to construct a permanent water treatment facility that can serve potable water from the Red Hill Shaft well to the Navy's water supply system that meets all applicable water quality standards. To satisfy NEPA, the Navy must first identify why the installation of the proposed treatment facilities is necessary. The Navy must then determine whether the proposal and potential alternatives thereto are technical feasible and identify *all* impacts that could result from the Proposed Action, including those which are separate in space and time from the proposed activities but

[2] Based on discussions with members of Congress and Navy personnel, the BWS understands that the construction of the proposed facilities may cost in excess of five hundred million dollars. The BWS is at a loss to understand how the Navy can determine whether such funds should be dedicated to this proposal without any quantification of the nature of the underlying contamination problem to be addressed.

are a reasonably foreseeable result thereof. As is discussed below, the Navy has not met these requirements.

II. The Navy's Proposal Is Missing Critical Components and the Analysis in the EA Fails to Satisfy the Substantive Requirements of NEPA

The Navy is proposing to reconnect the Red Hill Shaft to the Joint Base Pearl Harbor-Hickam (JBPHH) drinking water system. The Shaft will be connected to the drinking water system through a granular activated carbon (GAC) water treatment facility that will treat 5 million gallons per day of groundwater, the same amount as currently being treated at the existing emergency GAC water treatment facility. Under the Proposed Action the treated effluent will be utilized for potable purposes rather than being discharged into the South Hālawa Stream as is the current practice. While the BWS supports the Navy's efforts to put this treated water to beneficial uses and recognizes the need for the Navy to address water supply concerns related to its drinking water system, we are surprised by the timing and scope of the Proposed Action as well as the paucity of real analysis in the draft EA. As is detailed below, the draft EA does not adequately consider the scope of contamination present under baseline conditions, nor does it address all the potential impacts associated with the Proposed Action. Such information is necessary for the Navy's decisionmakers to evaluate the proposal and for the public to meaningful participate in the approval process. There is a substantial risk that the unanalyzed significant impacts may occur if the Proposed Action proceeds in reliance on the draft EA. This is a risk that the public should not be made not bear and that NEPA prohibits.

First, and most surprisingly, the EA does not provide discussion of why a permanent treatment facility is needed at this location nor does it describe the existing water quality conditions in the project area. Without this baseline information, it is impossible to determine what the treatment facility is being designed to address or the level of treatment that will be necessary to ensure that the effluent meets appropriate water quality standards, factors which establish the design parameters for the treatment facility as well as the impacts associated with such operations. The analysis also does not consider the feasibility of treating the effluent at Red Hill Shaft to a level that meets all appropriate federal and state drinking water standards. All this information is essential to assess the Proposed Action, identify and consider potential impacts associated therewith, and consider alternatives thereto – the overriding purpose of the NEPA process.

Instead of including a considered evaluation of the need for the proposed treatment facility and the impacts associated with providing the level of treatment necessary, the draft EA raises a number of questions. Has the Navy assessed the current condition of the aquifer? What data is available regarding the extent and location of contaminants in the vicinity of Red Hill Shaft as well as the larger aquifer? What level of treatment is

necessary to meet drinking water standards? Does the Navy have data that supports the conclusion that this level of treatment can consistently be provided? What actions will the Navy take if it cannot meet these standards? These are just a few of the questions that the reader of the draft EA is left to consider without guidance. Rather than addressing these and other related issues and analyzing potential impacts, the EA simply claims in conclusory fashion that water from Red Hill Shaft which is treated through the GAC facility will meet National Primary Drinking Water Regulations (NPDWR) and State of Hawaii Department of Health (HDOH) Safe Drinking Water standards before it is introduced into the Navy's drinking water system. This conclusory assessment is not sufficient. The EA needs to include a roadmap for the analysis that was conducted to determine that the Proposed Action is necessary and that it will not result in detrimental impacts as well as the data that supports these determinations. The Navy should also explain how the range of potential impacts considered were identified. Such information is not currently included or referenced in the draft EA. Without detailed support, neither the Navy's decisionmakers nor the public can evaluate whether the Proposed Action is an acceptable proposal or whether there are alternatives to the proposal which would minimize impacts and be environmentally preferrable. The Navy needs to revise the draft EA to include such considerations to satisfy the requirements of NEPA.

Second, based on numerous statements by Navy representatives, the BWS understood that the Navy would not bring the Red Hill Shaft supply back online until a number of studies and analysis had been completed. Specifically *Red Hill Shaft Recovery and Monitoring Plan* (Jan. 2022) (Monitoring Plan) states:

> Recovery of potable water systems is also a major focus of the overall project[3]. Before the Red Hill Shaft well can be brought back into service, attention will need to be given to other nearby water sources that have been taken offline in an abundance of caution. Criteria will need to be developed to provide assurances that restarting withdrawals from these sources will not threaten the water quality of those sources and will not compromise remediation activities at the Red Hill Shaft.

Monitoring Plan Section 2 at 18.

Despite the express recognition that bringing Red Hill Shaft online could impact water quality, including water quality at nearby water sources, and aquifer remediation efforts, the EA does not even mention much less analyze such impacts. This is a glaring omission. Moreover, the failure to address these impacts is surprising given that the

[3] The Monitoring Plan describes the overall project as being total recovery and remediation of Red Hill Shaft.

Monitoring Plan is expressly incorporated into the EA. Accordingly, NEPA requires that these impacts be addressed.

Finally, the BWS is concerned that the Navy has decided to proceed with re-establishing the Red Hill Shaft well as a potable water supply without simultaneously addressing the larger question of aquifer remediation. The BWS appreciates that the Navy has consistently recognized publicly that it is responsible for completing environmental remediation to address the spills from the Red Hill Bulk Fuel Storage Facility, both historic and recent. In the Monitoring Plan, which is incorporated into the draft EA by reference, the overall project being implemented includes actions related to both environmental remediation and re-establishing potable water supply. These actions are necessarily linked because the efforts to carry out one of the actions will inevitably impact the efforts of to carry out the other action. This linkage is appropriate and irrefutable. Therefore, to fully assess the impacts of the Proposed Project, it is critical to consider the impacts associated with the larger environmental remediation efforts which must be carried out to address contamination of the sole source aquifer. At a minimum, the Navy decisionmakers and the public should be made aware of the cumulative effects of the larger remediation project and construction and operation of the water treatment facilities discussed in the EA. The draft EA fails to meet the requirements of NEPA as it does not include such a discussion.

III. Specific Areas of Impacts Requiring Further Evaluation

The analysis underlying the draft EA is artificially limited and thus insufficient to evaluate the potential environmental impacts associated with the Proposed Action as required by NEPA. The scope of the analysis for each considered resource is defined by the scope of the activities identified as being part of the Proposed Action, the region of impact (ROI) which bounds the geography of the analysis, and the types of effects which are considered potential direct, indirect or cumulative impacts. If any of these parameters are artificially limited, the scope of the analysis will also be so limited. Here, the Navy did limit each of these parameters for one or more resource. To establish the scope of the analysis, the Navy identified the Proposed Action to include only: (1) construction and operation of a permanent water treatment facility and related infrastructure; and (2) connection of the interim treatment facility (currently under construction) to the Navy's drinking water system and operation of interim facility. The scope of the Proposed Action did not include any activities necessary to remediate the underlying aquifer or to respond to contaminants mobilized by the Proposed Action. The ROI and the types of effects analyzed are identified on a resource-by-resource basis. Following is a discussion of some of the deficiencies the BWS has identified with the Navy's analysis of specific resources in the draft EA.

A. Public Health Concerns

The draft EA recognizes that the Proposed Action has the potential to impact public health and safety. However, the consideration of public health concerns is overly

narrow and, therefore, excludes a broad range of potential impacts that must be considered to constitute the "hard look" that NEPA requires.

In the draft EA, the Navy assumed that the ROI for public health and safety impacts is limited to the immediate vicinity where the proposed water treatment facilities will be located and the service area for the treated effluent introduced into the JPBHH drinking water system. Specifically, the draft EA ROI for public health includes "the former RHBFSF, the adjacent State of Hawaii-owned properties, and the Army's Red Hill Housing where the Proposed Act would take place, and those areas served by the Navy's drinking water system, including JBPHH and outlying residential communities such as Aliamanu Military Reservation, Red Hill Housing, and Catlin Park, among others." EA at 3.1.2. As previously discussed, the operation of the Red Hill Shaft well has the potential to impact nearby water systems as well as the condition in the overall aquifer. Such effects could implicate public health concerns related to the availability of drinking water and the quality of available drinking water to individuals located outside the EA's identified ROI. Therefore, the ROI for public health and safety issues should be expanded to include users of the larger aquifer, including the BWS and its customers and should consider a broad range of potential public health considerations. The analysis in the EA is deficient without such consideration.

Although the EA indicates that it considered all impacts associated with "availability of drinking water, the quality of said drinking water, workforce safety, and environmental health and safety risks to children and to the general public" (EA at 3.1), the EA did not identify *any* potential health and/or safety risks to the Navy's water users which could result from the introduction of the Red Hill Shaft treated effluent into the potable water system nor did it acknowledge that the assessment of potential impacts was limited by paucity of certain information critical to identifying and evaluating the potential for impacts associated with contamination from the Red Hill Bulk Fuel Storage Facility like an approved groundwater model, an approved fate and transport model, contaminant plume mapping, etc. This type of impact, which has been the focus of significant known public controversy, apparently did not even merit mention in the draft EA. It has long been recognized that NEPA requires agencies to closely scrutinize issues which, like here, involve significant public controversy or where the some of the effects of the action are unknown. *See, e.g. National Parks & Conservation Ass v. Babbitt,* 241 F.3d 722, 737 (9th Cir. 2001). Thus, NEPA here requires consideration of this issue or further explanation as to why such analysis is not necessary.

B. Impacts to Water Resources

The EA analysis assumes that the potential for impacts to water resources here is largely dependent on the presence of contaminants in and around Red Hill Shaft and the movement of such contaminants within the vicinity of the Proposed Action. The Navy has previously recognized that withdrawal of groundwater can impact movement of contaminants within the aquifer. *See, e.g.* Monitoring Plan. Moreover, the fact that one of the purposes of the Proposed Action is to conduct pumping to maintain the

"capture zone" for contaminants in the project area demonstrates that activities that involve withdrawal of groundwater have the potential to impact movement of contaminants and that the Navy believes that contaminants are present in the vicinity of Red Hill Shaft at a level of which requires treatment. Thus, NEPA requires the careful consideration of the potential consequences of the continued pumping of groundwater as a part of the Proposed Project on the availability and quality of groundwater resources.

Despite the recognition that pumping can move contaminants and impact groundwater quality, the draft EA concludes that implementation of the Proposed Action will not result in any impacts to water quality. This finding is based in part of the finding in the draft EA that "since the Red Hill fuel storage tanks have been defueled the primary groundwater contamination source has been removed." While the removal of fuel from the Red Hill tanks has eliminated a significant source of groundwater contamination, it has not removed all the related contamination. It is well documented that there have been numerous leaks from the Red Hill Bulk Fuel Storage Facility and that the Navy has not adequately characterize the fate of the released fuel and other contaminants. Again, the fact that the Navy recognizes the need to maintain the capture zone in this area even after the Red Hill tanks have been largely defueled demonstrates that there are contaminants present in the Proposed Action area. This conclusion is further reinforced by the Navy's recent proposal to install a GAC treatment facility at its Aiea-Hālawa Shaft, which would only be necessary if contaminants were present in aquifer at concerning levels and that reactivating the Aiea-Hālawa Shaft would be likely to mobilize such contaminants. Failure to analyze the impact that the movement of contaminants could have on groundwater resources and human health renders the EA's analysis inadequate.

Further, it is not clear whether the EA sufficiently describes all the components necessary to treat the water to the standards proposed. In the analysis of potential impacts to water resources, the EA notes that operating the Proposed Action in compliance with safe drinking water standards could require further actions including "the installation of additional enhanced treatment technologies such as high-pressure membrane treatment (e.g. nanofiltration or reverse osmosis)." EA at 3.2.3.2. The draft EA, however, fails to discuss why such measures would be required and consider the impacts of implementing such measures and/or the potential significance of the failure to implement such measures. This information is necessary to understand the scope of the activities which will likely be carried out and the impacts associated therewith.

C. Hazardous Materials

The EA's consideration of impacts associated with hazardous materials is also deficient as it does not consider impacts associated with all potential hazardous substances that might be present in the Project area and potentially impacted by implementation of the Proposed Action. Most significantly, the EA does not include any consideration of the presence of hazardous materials commonly called "forever chemicals," including per-

and polyfluoroalkyl substances (PFAS). There are numerous documented releases of PFAS from the Red Hill Bulk Fuel Storage Facility and PFAS is known to be present in the vicinity of the Proposed Action. *See, e.g.,* EPA Letter to J. Tamashiro, Environmental Restoration Manager, NAVFAC Hawaii requesting that the Navy collect additional PFAS groundwater samples due to need to address sources of PFAS in the immediate vicinity of the Red Hill Shaft. (T. Russi, Feb. 19, 2025). The failure to consider and analyze the potential impacts associated with mobilization of such hazardous materials in the aquifer as well as potential to introduce such chemicals into the JBPHH water system is a significant error. Given that such hazardous materials are highly mobile, the ROI for hazardous materials and hazardous wastes should be the entire sole source aquifer which underlies the Proposed Action and not limited to just the area in the immediate vicinity of the Proposed Action project area as identified in the EA. Further, the EA needs to identify and analyze the types of environmental consequences that mobilizing PFAS in the vicinity of the project could have. Failure to include such analysis renders the draft EA deficient.

IV. Cumulative Impacts

NEPA requires agencies to consider the cumulative impacts of proposed actions together with the impacts associated with reasonably foreseeable actions in the project area. In the draft EA, the Navy recognizes that implementation of the Monitoring Plan and other Red Hill remediation activities could result in impacts that would overlap with those associated with the Proposed Action and should therefore be considered in a cumulative impacts analysis. However, for each resource analyzed, the draft EA concluded without support that the impacts will be less than significant given that the proposed actions are all remedial in nature. Actions which are remedial in nature can also have negative environmental impacts and such effects must be analyzed in a NEPA document. The question that must be answered is not whether an action is remedial but rather whether it has any effects which when considered with other projects could be significant. The cursory "analysis" in the draft EA is deficient as it fails to even consider the potential overlap of actions which could impact the direction of groundwater flow and any contaminants located in the aquifer. Failure to engage in any analysis of these potential cumulative impacts equates to failure to satisfy the requirements of NEPA.

V. Conclusion

The BWS appreciates the opportunity to participate in the consideration of the draft EA. Determining the best way to address all the consequences of the releases of fuel and other contaminants from the Red Hill Bulk Fuel Storage Facility is a major undertaking with serious consequences for the people of O'ahu, critical water resources, and the interest for generations to come. It is therefore essential that the Navy thoroughly assess the consequences of proposed actions such as those under consideration here and that the public have the opportunity to meaningfully participate in the decision-making process. The draft EA's analysis is not sufficient because in numerous respects

has been artificially limited, it includes conclusions which are not supported by referenced data, and it fails to consider many potentially significant impacts. Upon completion of a revised document, the Navy should then be able to determine whether further study is required through the development of an Environmental Impact Statement or whether an EA can suffice.

If you have any questions, please feel free to contact me at (808) 748-5061.

Very truly yours,

ERNEST Y.W. LAU, P.E.
Manager and Chief Engineer

cc: Nāʻālehu Anthony, Chair, Board of Water Supply

Rear Admiral Stephen Barnett
Commander
Navy Region Hawaiʻi
850 Ticonderoga Street, Suite 110
Joint Base Pearl Harbor-Hickam, Hawaiʻi 96860

Josh F.W. Cook
Pacific Southwest Regional Administrator (Region 9)
EPA
75 Hathorne St
San Francisco, California 94105

Kathleen Ho
Deputy Director
Hawaiʻi State Department of Health
Environmental Health Administration
1250 Punchbowl Street
Honolulu, Hawaiʻi 96813