



DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

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Environmental Programs Branch
Programs and Project Management Division

Ms. Jennah Oshiro
Hazard Evaluation and Emergency Response Office
Department of Health
State of Hawaii
2385 Waimano Home Road
Uluakapu Building 4
Pearl City, Hawaii 96782

Subject: Preliminary Assessment at the Kihei Artillery Range, Kihei, Maui

Dear Ms.Oshiro:

We are providing responses to comments on the subject document. We appreciate the input you and your team provided via letter dated 20 September 2024. Your valuable recommendations were incorporated where possible.

Attached is a two-column list of responses to HDOH comments. On the left are comments from HDOH and the righthand column are USACE responses.

If you have any further questions regarding this document, please contact Mr. Richard Tanaka, Program Manager, at (808) 651-6135 or e-mail: richard.h.tanaka@usace.army.mil.

Sincerely,

Richard H. Tanaka
CEPOH-PP-E Program Manager
Environmental Programs Branch

Enclosure

Attachment 1

Regulator Comment	USACE Response
<p>It is unclear why no further Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) investigation is warranted for Area 2. As Area 2 was considered a maneuver area, it should be classified as low use area (LUA) in accordance with EM 200-1-15. In addition, it is stated throughout the PA that munitions and explosives of concern (MEC) and small arms ammunition (SAA) were fired from Area 2 into Area 12. As such, MEC was used in Area 2 and may be present as unexploded ordnance (UXO), had the munitions not reached the target in Area 12, or as discarded military munitions (DMM). Additionally, if small arms firing points were located within Area 13, investigation for heavy metals should also be conducted. As this PA provides sufficient evidence of MEC and SAA use in Area 2, please include Area 2 as an Area of Potential Interest (AOPI) for further investigation under CERCLA.</p>	<p>Concur. Upon further consideration of the activities performed at the maneuver areas, the USACE Honolulu District agrees that Area 2 should be included as an Area of Potential Interest for MEC/MC in the PA. However, although the PA forms the basis for USACE identification of eligible FUDS Projects, specific FUDS Project recommendations cannot be made in the PA. FUDS Projects recommendations for locations where a release or threat of release is identified are made in the Inventory Project Report (INPR).</p> <p>Furthermore, LUA classifications are given during the Remedial Investigation (RI) stage of the CERCLA process. LUA, HUA, and NEU classifications are used to categorize areas within or comprising the entirety of Munition Response Sites (MRSs). Since there is no MRS defined at the FUDS at this moment, references to areas without concentrated munitions use were deleted from the PA report.</p>
<p>It is unclear why no further CERCLA investigation is warranted for Area 13. As Area 13 was a maneuver area, it should be classified as an LUA in accordance with EM 200-1-15. It is also stated throughout the PA that MEC and SAA were fired from Area 13 into Area 12. As such, MEC was used in Area 13 and may be present as UXO, had the munitions fired not reached the target in Area 12, or as DMM. Additionally, if small arms firing points were located within Area 13, investigation for heavy metals should also be conducted. There were also two separate Explosive Ordnance Disposal (EOD) responses within Area 13. Based on the</p>	<p>Concur. Upon further consideration of the activities performed at the maneuver areas, the USACE Honolulu District agrees that the entire Area 13 should be included as an Area of Potential Interest for MEC/MC in the PA. However, although the PA forms the basis for USACE identification of eligible FUDS Projects, specific FUDS Project recommendations can't be made in the PA. FUDS Projects recommendations for locations where a release or threat of release is identified are made in the INPR.</p> <p>LUA classifications are given during the</p>

<p>documented former use of MEC and SAA within Area 13 and the previous findings of MEC within the Area, Area 13 as an AOPI for further CERCLA investigation. The following areas of the PA indicate MEC and/or small arms use within Area 2.</p>	<p>RI stage of the CERCLA process. LUA, HUA, and NEU classifications are used to categorize areas within or comprising the entirety of MRSs. Since there is no MRS defined at the FUDS at this moment, references to areas without concentrated munitions use were deleted from the PA report.</p>
<p>According to the report, Area 2 and Area 13 are being ruled out as moving forward in the CERCLA process based on the instrument assisted visual sampling that was performed by the U.S. Army Corps of Engineer (USACE) Project Visit team during the PA Project Visit. To adequately assess if a maneuver area should move forward to an Site Investigation (SI) would require extensive sampling of the site since munitions potentially presenting an explosive hazard (MPPEH) would be expected to be random, at lower densities, and potentially buried/discarded throughout the site. Since this level of sampling was not conducted, the historical evidence confirming the site was a maneuver area and/or contained firing points should result in a determination that Area 2 and Area 13 move forward to the Site Investigation (SI). There doesn't appear to be adequate sampling of Area 2 and Area 13 to determine that an explosive hazard/risk does not exist negating the historical evidence of use.</p> <p>Munitions have also been found in Area 13 and disposed of by detonation. While the MEC is assumed to have been moved there, it is unknown where they were moved from. Area 2 had an ammunition supply point in it and the area was used to fire munitions into Area 12. No further investigation beyond a PA Project Visit has been conducted. As such, this warrants further investigation following the CERCLA process for Areas 2 and 13</p>	<p>Concur. As mentioned in the responses above, Areas 2 and 13 are now included as Areas of Potential Interest for MEC/MC in the PA.</p> <p>Refer to response to comments #1 and 2 for additional information.</p>

<p>The offshore area adjacent to Area 13 must be addressed in accordance with the USACE FUDS Handbook (Dec. 2022), Section 3.4.5.3, as the PA indicates that these areas were also used by the military and may contain MEC. Please revise the FUDS boundary to include the underwater munitions area as part of this PA and include it in either the Area 13 AOPI or as its own AOPI. The following areas of the PA indicate MEC use and potential presence in the water portions adjacent to Area 13</p>	<p>Partially Concur. The cited Handbook reference corresponds to FUDS Project eligibility and not to FUDS Property boundary eligibility. FUDS property boundaries are based on real estate documentation where ownership and jurisdiction by the United States is demonstrated. Project boundaries are based on areas of interest (AOIs) where known or potential contamination, hazards, or military munitions are attributable to DoD activities prior to 17 October 1986 and associated with that property. Furthermore, FUDS property eligibility determination is documented in a Findings and Determination of Eligibility (FDE) and not in the PA. Current property information of the offshore area adjacent to Area 13 do not satisfy the criteria for property eligibility. Consequently, evaluation of the FDE to expand the Kihei FUDS property boundary is not recommended.</p> <p>Regarding consideration of the offshore area of Area 13 as an AOI, further analysis of historical records and maps revealed that the referenced underwater demolition areas used during amphibious training were located at the Maalaea Bay Underwater Obstacle Course (refer to the PA Figure 38). The FUDS eligibility of the land and offshore area for the associated underwater demolition and amphibious training areas are currently being investigated under the Kamaole Training Base FUDS Property No. H09HI0157. The team revised the PA and deleted references to underwater demolition activities that could cause the reader to interpretate that these activities occurred in the offshore area adjacent to Area 13. Furthermore, the team added statements under Section 3.2.1.4</p>
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	<p>clarifying that although the Army and Marine Corps units associated with the Kihei FUDS used the entire coastal area of Maalaea Bay for joint training related to beach defenses and amphibious training, all of the amphibious training activities involving underwater demolition training occurred outside of the Kihei FUDS and will be investigated under the Kamaole Training Base FUDS Property No. H09HI0157.</p> <p>At the current time, documented use of the offshore area of Area 13 only includes amphibious landing and disembarking of personnel and equipment. Newly discovered maps indicate that obstacles and fortified positions used during beach assault training were located on the inland portion of the FUDS. Furthermore, records indicate that only simulated naval gunfire and air support with smokers occurred during amphibious training exercises on the FUDS Area 13, and no live ammunition was used. The Range Regulation for training in Area 13 prohibited firing from “ship-to-shore or from landing craft” by the Army, Marine and Navy. Only the use of flamethrowers and reduced charged demolitions was allowed to destroy obstacles and fortified positions on the inland portions of the FUDS. The team updated the PA to add new information with the location of obstacles and fortified positions at the FUDS Area 13.</p> <p>Although currently available information does not suggest the probable presence of MEC on the offshore areas of Area 13, USACE Honolulu District will consider further action as conditions or additional information becomes available.</p>
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<p>Please conduct a global review to ensure the list of munitions potentially found in each Area is consistent, as it is pertinent for the preliminary conceptual site model that is reliant on the PA data. For example, shrapnel rounds are not mentioned until page 100 (PDF p. 116) and 20mm projectiles are not mentioned within the report, yet one was found during the USACE Project Visit, presented in Appendix H</p>	<p>Concur. List of munitions revised and updated throughout the report.</p>
<p>HDOH has records of other FUDS in iHEER in the vicinity of the FUDS Kihei Artillery Range. Do any of these surrounding FUDS overlap with the FUDS Kihei Artillery Range and are they related? Please evaluate and provide information on the surrounding FUDS as they relate to Kihei Artillery Range as needed, including but not limited to FUDS Kamaole Training Site and FUDS Marine Reservation</p>	<p>Concur. At the current time, USACE Honolulu District is in the process of revising the FDE for the Kamaole Training Base FUDS Property No. H09HI0157 to properly define the eligible FUDS Property boundary based on new information. The current FUDS property boundary overlaps with 150 acres of the Kihei FUDS. The FDE will revise the boundary of the Kamaole Training Base FUDS as the FUDS inventory cannot duplicate the same physical property under a different FUDS Property. Section 2.3.1 was revised to include relevant information on the Kamaole Training Base FUDS.</p> <p>Furthermore, USACE Honolulu District is also developing FDEs, PAs, INPRs, and revising current FUDS Property Boundaries for multiple additional Marine Training Areas in Maui. Copies of relevant FUDS documentation in Maui and in the vicinity of the Kihei FUDS will be provided as the reports are completed.</p>

<p>Executive Summary, Page ES-1 (PDF p. 12), 4th paragraph, last sentence: Recommend separating the 2.36-inch rocket into a high explosive anti-tank (HEAT) category</p>	<p>Concur. Text revised.</p>
<p>Executive Summary, Page ES-2 (PDF p. 13), 1st paragraph, 1st sentence: For the sentence, "...suspected munitions associated with the FUDS property are small arms, artillery shells and projectiles, rifle grenades, mortars, pyrotechnics, and rockets..." include hand grenades in the summary statement as detailed in Section 4.1.4. Additionally, revise the generic terms for "shells" and "rounds." Shells and rounds are generic terms which may cause confusion as to the type of military munition that is being referred to. Please define the munitions by their nomenclature and type (e.g., projectile, mortar, hand grenade, rocket, etc.)</p>	<p>Concur. Executive Summary revised to include hand grenades.</p> <p>Regarding the generic terms for shells and rounds, the team revised the PA to define the munitions by nomenclature when possible. However, in some instances this was not possible as the source document used the generic term and the exact type of military munition was not specified.</p>
<p><u>Executive Summary, Page ES-2 (PDF p. 13), Table:</u> Please include Area 2 and Area 13 in this table to advance to the SI phase. Refer to Comments #1, 2, and 3.</p>	<p>Concur. Table updated to include Areas 2 and 13.</p>

<p>Executive Summary, Page ES-3 (PDF p. 14), 2nd paragraph: Please include Area 2 and Area 13 to advance to the SI phase. Refer to Comments #1, 2, and 3.</p>	<p>Concur. Text updated to include Areas 2 and 13.</p>
<p>Executive Summary, Page ES-3 (PDF p. 14), Figure ES-1, Legend: Recommend correcting the typo “Naplam” to “Napalm.”</p>	<p>Concur. Legend revised.</p>
<p><u>Section 1.2, Page 1 (PDF p. 17), bullets:</u> Interviews are typically a large part of the PA phase. No interviews are mentioned in these summary bullets. If interviews were not conducted, please explain why they were not performed, as they are an integral part of an PA. If they were performed, include them as an appendix to the PA</p>	<p>Noted. Appendix G states that no formal interviews were conducted since knowledge was shared conversationally through in-person meetings during the site visits to the FUDS. These anecdotes are stated within Appendix H Property Visit Report 1 on pages H-44 – H-46 and H-64. There are also anecdotes within Appendix H Property Visit Report 2 Supplemental on pages H-3 – H-4.</p>
<p>Section 2.1, Page 2 (PDF p. 18), 1st sentence: The stated acreage is inconsistent within the report. This section states that the Kihei Artillery Range is 17,505 acres, while the Executive Summary (p. ES-1) and Section 2.3.1.3 (p. 10) state the area as 17,494 acres. Recommend using the same acreage for consistency or providing a footnote regarding the approximation</p>	<p>Concur. Text revised.</p>

<p><u>Section 2.2.1.4, Page 11 (PDF p. 27), Figure 6:</u> Recommend including a note or legend for the blue ellipses and green shaded area.</p>	<p>Concur. Legend added.</p>
<p><u>Section 2.2.1.4, Page 12 (PDF p. 28), Figure 7:</u> Recommend including a note or legend for the green shaded area.</p>	<p>Concur Legend added for clarification.</p>
<p><u>Section 2.4.6, Page 42 (PDF p. 58), last paragraph:</u> Please include in this paragraph if this contamination is expected to have impacted groundwater below the FUDS.</p>	<p>Noted. The following information was added to the report:</p> <p>“Contamination levels measured in 2003 at the nearest wells to the FUDS property were less than 0.15 ppb for all detected chemicals and far below the EPA’s threshold. Therefore, this contamination is not expected to have affected the groundwater underneath the FUDS.”</p>
<p>Section 2.5.1, Page 47 (PDF p .63), 2nd paragraph: Recommend including information for the property owners that own large portions of the FUDS (e.g., Haleakala Ranch, Department of Hawaiian Home Lands, Kaonoulu Ranch, etc.), such as number of acres and percentage of the FUDS, or a figure mapping the large land owners. This information would be helpful to the reader to understand the main large landowners</p>	<p>Noted. Figure 32 already maps the large landowners within the FUDS. While real estate information is publicly available, USACE has reservations regarding the disclosure of landowner property information in greater detail than what is already disclosed in the PA. Information dissemination of selected landowners could be perceived as an intrusion of the landowners’ privacy and can result in landowner backlash. No changes made to the report.</p>

<p>a) Include which areas of the FUDS have restricted access (e.g., Area 2, Area 12). For example, large areas of western portion of Area 13 are open to the public, while other areas of the FUDS are controlled by the landowners. It is unclear in this paragraph where access in the FUDS is restricted and where it is unrestricted.</p> <p>b) Recommend including additional information in paragraph for public access such as any controlled access points (e.g., gates, guard shack), fencing/walls that restrict entry, access roads, etc. More information should be added to this paragraph to provide the reader with a better understanding of site accessibility</p>	<p>a) Non-concur. USACE has reservations regarding the disclosure of restricted versus unrestricted areas of property landowners on a publicly accessible document. Dissemination of such information could be perceived as an intrusion of the landowners' privacy and can result in landowner backlash. Furthermore, this information could be used by trespassers to know where they can enter and exit the landowners' property. No changes made to the report.</p> <p>b) Non-concur. Refer to response to Sp. 17 and Sp 18-a.</p>
<p><u>Section 2.5.1, Page 49 (PDF p. 65), Figure 32:</u> Recommend adding the red lines, dark green shaded area, purple shaded, light purple shaded, and green hatched area to the legend.</p>	<p>Concur. Legend revised.</p>
<p><u>Section 2.5.3, Page 52 (PDF p. 68):</u></p> <p>a) It is unclear why only the population around the impact area is being assessed, despite the fact that other areas of the FUDS may also contain MEC. Section 2 should be for the entirety of the FUDS, not just for the one later identified AOPI. There are also heavily developed portions within Area 13 in which populations may be exposed to on land and off-shore MEC. Please also include the populations in Areas 2 and</p>	<p>a) Concur. Text revised to include the entire FUDS.</p> <p>b) b) Concur. Text revised to include the entire FUDS.</p>

<p>13 in this assessment.</p> <p>b) b) Last paragraph, 4th sentence: Per the previous comment, revise this section so it is for the entire FUDS. The entire FUDS boundary is not remote, as portions of the FUDS are in currently developed areas (e.g., resort, residential, commercial areas). Additionally, the sentence seems to indicate the ranch fencing and signage will limit access to the entire FUDS boundary. Please revise this sentence for accuracy.</p>	
<p><u>Section 2.6.1, Page 55 (PDF p. 71):</u> Recommend rotating this page to portrait</p>	<p>Concur. Page rotated.</p>
<p>Section 3.1.2, Page 61 (PDF p. 77), 2nd paragraph: As this paragraph indicates there is potential for MEC within the near shore areas of Area 13, please expand the FUDS boundary to include these underwater portions in this PA</p>	<p>Non-concur. As stated in response No. 4, the activities performed on the offshore area adjacent to Area 13 only included amphibious landing and disembarking of personnel and equipment. Only simulated naval gunfire and air support with smokers occurred on the offshore areas during amphibious training exercises on the FUDS, and no live ammunition was used. The Range Regulation for training in Area 13 prohibited firing from “ship-to-shore or from landing craft” by the Army, Marine, and Navy. Only the use of flamethrowers and reduced charged demolitions was allowed to destroy obstacles and fortified positions on the inland portions of the FUDS.</p> <p>Furthermore, the land and offshore area west of Area 12 associated with underwater demolition training pertain</p>

	<p>to Kamaole Training Base FUDS Property No. H09HI0157. Consequently, this acreage cannot be investigated under the Kihei FUDS, which is the property being investigated under this current effort.</p> <p>Refer to response Sp 4 for additional explanation.</p>
<p><u>Figure 38, Page 62 (PDF p. 78):</u> It appears that the blue shaded “Present Artillery Range” boundary is not a part of the original map and was added for the purpose of this PA. If the blue shading was added to the map, indicate how the boundary of the “Present Artillery Range” was determined and why the entire blue shaded area is not included in the current FUDS boundary. Also recommend including a clear depiction of the entire legend located on the top portion of the map.</p>	<p>Noted. The present artillery range shaded area is part of the original map; however, since it was difficult to distinguish the boundary in the original map, the team added the shaded area for easier identification of the reader. Legend added for clarification.</p> <p>As discussed in Sp 4, FUDS property boundaries are based on real estate documentation where ownership and jurisdiction by the United States is demonstrated. Section 2.2 discusses the confirmed eligible property boundary that met the eligibility criteria as documented in the revised FDE for the Kihei FUDS.</p> <p>It is important to mention that operational maps often do not align with the real estate agreements for the acquisition and use of a site. For this particular case, the Army and Marines jointly used the coastal area west of Area 12 with the Kamaole Amphibious Training Base. As such, property eligibility for the land in question is currently being investigated under the Kamaole Training Base FUDS Property No. H09HI0157. Copies of the relevant FUDS documentation in the vicinity of the Kihei FUDS will be provided as the respective reports are completed or updated.</p>

	<p>No changes were made to the Kihei FUDS to avoid duplication of the same physical property under a different FUDS</p>
<p><u>Section 3.1.4, Page 64-65 (PDF p. 80-81), and Figure 40:</u> It is unclear in this section if the request for additional land for joint use training was granted or denied. If the request for was granted for the expanded use of an impact area and fortified area, then this expanded area would include most of Area 13. Clearly indicate in this section if the request for additional land for Army and Marine joint use training was granted.</p>	<p>Concur. Text added to clearly indicate that joint use of the depicted land was granted.</p>
<p>Section 3.2.1.3, Page 83 (PDF p. 99), 1st paragraph, last sentence: The presence of munitions debris (MD) in the vicinity of the pu'u should also be indicative of the potential for MEC beyond designated impact area, not just MD. Please revise the sentence to include the potential for "MEC" beyond the pu'u.</p>	<p>Concur. Text revised.</p>
<p>Section 3.2.1.3, Page 85 (PDF p. 101), 1st paragraph, 2nd sentence: This prohibition of "ship-to-shore" firing alludes to the possibility that this action was being performed prior. The report doesn't mention these actions other than this statement. Was there evidence that these actions occurred prior to the prohibition? This pertains to the types of ordnance that are potentially within Area 12.</p>	<p>Noted. There is no evidence that there was ship-to- shore firing before or after this prohibition. Landowners often requested prohibition clauses to protect against future damages and secure military liability if the clause was broken. The expectation that the military performed these activities prior to their prohibition is not shown in the preponderance of the evidence. Only documented facts should be used to draw conclusions in the PA.</p> <p>The following sentence added for</p>

	clarification: "There is no evidence that ship-to-shore firing occurred before the practice was prohibited."
<p>Section 3.2.1.3, Page 87 (PDF p. 103), 2nd paragraph:</p> <p>a) 1st sentence: Please revise as necessary, as M7B1 is a firing system and not a munition.</p> <p>b) 3rd sentence: Although the sentence states that the only suspected air-to-ground use of Kihei Artillery Range was the proposed Napalm Bombing Target, the report also states that an AN-MK23 3-lb bomb was found in Area 13 and disposed of, strafing activities historically took place, and a 20mm projectile was found during a USACE project visit (Appendix H). As the report indicates air-to-ground use other than the proposed Napalm Bombing Target, the sentence is inaccurate. Please revise the sentence accordingly.</p>	<p>a) Concur. Text revised.</p> <p>b) B) Non-concur. Section 3.2.1.3 only discusses training on Area 12. Sentence revised to emphasize that discussion pertains to Area 12 only.</p>
<p><u>Section 3.2.1.6, Pages 99-100 (PDF pp. 115-116):</u></p> <p>a) Please clarify in this section how many UXO clearances were actually conducted and where, as the section alludes to the removal of UXO on more than Area 12. Based on this section, there appears to have been clearances in 1945 and 1946. There is mention of a clearance in February 1944 and "dedudiving" operations in August 1949, but it is unclear if these activities were ever executed. Please revise the section to clearly identify when each UXO clearance was conducted, as well as which areas (i.e., Area 2, 12, 13) the clearances were conducted in.</p>	<p>a) Concur. Text added for clarification; however, the location and number of UXO clearances that occurred on the FUDS is unknown. Some of these clearances were proposed or requested, but the investigation team could not locate reference material to confirm if they were ever executed.</p> <p>b) Noted. Text added for clarification.</p> <p>c) Partially Concur. Areas 2 and 13 are included as AOIs in the PA as they were used for maneuver and firing positions with target on the artillery impact area.</p> <p>Regarding the 1945-1946 clearances of the artillery range, the document</p>

b) Page 99 (PDF p. 115) 4th paragraph, 3rd and 4th sentences: Due to the inclusion of this statement, were there removal actions or investigations historically taken in the Areas 2, 12, or 13 being assessed as part of this PA? Please add additional details to this paragraph.

c) Page 99 (PDF p. 115) 5th paragraph: The paragraph indicates that the impact area located on the three properties (e.g., Ulupalakua Range, Haleakala Ranch, and H.R. Rice parcels) was cleared, despite the fact that portions of these leased areas fall outside of the “impact area” boundary identified in Area 12 (Figure ES-1). For example, all of the Ulupalakua Ranch leased area illustrated in Figure 5 is outside the Area 12 “impact area.” If these three leased areas were considered part of the impact area and/or were cleared, they should be assumed to potentially contain MEC and as a result, Area 13 should be included as an AOPI for further assessment under CERCLA. Refer to Comments #2 and 3.

i. Ulupalakua Ranch Ltd. (RE 4537): The paragraph states that clearance was conducted in this leased area. As the entire leased area (Figure 5) is located in Area 13, the potential presence of MEC should be assumed in Area 13. Section 2.2.1.5 also states that the leased areas were to operate as an artillery range, indicating the former use of MEC in Area 13.

ii. Haleakala Ranch Co. (RE 4225): The paragraph states that

only says that the artillery range was located on these properties and not that the entire leased area comprised the artillery range. The Haleakala and Rice lands designated for the artillery range are those described in Section 2.2.1.4 and depicted in Figure 6, which is supported by multiple operational maps depicting the artillery impact area. As mentioned in Sp 23, actual operational use of a site often did not align with the real estate agreements for the acquisition and proposed use of the site. This is why multiple lines of evidence are investigated to determine the real historical use of the site. Subsequent historical data for training at Kihei clearly defines the boundaries of the Artillery Impact Area, confirming that it did not extend to the entire leased area.

Multiple lines of historical evidence from the years of 1944-1945 for the use of Ulupalakua Ranch property confirms that the artillery impact area did not extend to their property. However, the Fortified Area which was the designated target area during training for attacking fortified positions was located in Ulupalakua Ranch Ltd. (RE 4537), which explains the need for remediation in that area. However, the report emphasizes that no duds were located on Ulupalakua Ranch during the 1945 – 1946 clearances.

The PA was revised to add clarification and avoid confusion. Also, the following sentence was added: “No duds were recovered from the Ulupalakua Ranch Ltd property during the 1945 – 1946 clearances.”

d) Concur. The following footnote was added to clarify terminology of

<p>clearance was conducted in this leased area. As the southern portion of the leased area portrayed in Figure 7 and the southern portion of Parcel B of the leased area shown in Figure 8 are located in Area 13, the potential presence for MEC should be assumed in Area 13. Section 2.2.1.4 also describes the area as Parcels A and B for use as “artillery and combat ranges” and states that the government agreed to conduct UXO clearance every 30 days, indicating the former use of MEC in Area 13.</p> <p>iii. H.R. Rice (RE 4349): The paragraph states that clearance was conducted in this leased area. As Parcel 2 of the leased area (Figure 9) is located in entirely in Area 13, the potential presence of MEC should be assumed in Area 13. Section 2.2.1.5 also states the intent was to operate the H.R. Rice and Ulupalakua Ranch leased area (RE 4537) “as one large area” artillery range, indicating the former use of MEC in Area 13.</p> <p>d) Page 99 (PDF p.115), 5th paragraph, 1st sentence: Please explain the term “policed” as it relates to the 1945 clearance/work.</p> <p>e) Page 100 (PDF p. 116). 2nd paragraph: Previously the report stated there weren’t any air-to-ground activities, but this sentence references “dedudding operations for aerial to ground missiles.” Please clarify if air-to- ground munitions training (e.g., firing of rockets, dropping bombs, etc. from aircraft) occurred.</p>	<p>“policing”.</p> <p>“Policing in this military context means to conduct surface-level inspections of the property and clear reasonably obvious dud munitions.”</p> <p>e) Concur. The proposed dedudding operations were planned for the entire Island of Maui. Reference to dedudding of aerial to ground missiles removed as it does not pertain to the Kihei FUDS. Text revised for clarification to read as follows:</p> <p>“In August 1949, the USACE Honolulu District requested funding for hiring labor to perform dedudding operations on the Island of Maui. There is no further information on where specifically USACE was planning to dedud. Headquarters did not respond favorably and there is no confirmation if the funds were granted later on.”</p>
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<p><u>Section 3.2.1.7, Page 102 (PDF p. 118), Table 3.2.1.7:</u> There were two 2021 EOD incidents in Area 13. Although the items did not appear in- situ, they should be considered as originating from the surrounding area (i.e., Area 13) and from former DoD military use, unless the MEC were not identified as originating from the WWII era. Based on the evidence of MEC in Area 13, please include Area 13 for additional CERCLA investigation.</p>	<p>Partially Concur. Area 13 is included as an AOI as it was used for firing positions with targets in Impact Area 12 or the Fortified Area 13.</p> <p>However, both of the 2021 EOD responses did not appear in-situ and based on the location where they were found it is most probable that they originated from either the use of the Fortified Area 13 or Impact Area 12.</p>
<p><u>Section 3.2.2.2, Page 107 (PDF p. 123), Figure 77; and Section 3.2.2.3, Pages 107-108 (PDF pp. 123-124):</u> It appears that Maalaea Bay was used extensively as a disposal/dump area for solid wastes, fuel, ordnance, and ammo. The various dump areas depicted in Figure 77 need to be thoroughly discussed. This section appears to avoid discussing the potential hazardous, toxic, and radioactive waste (HTRW) and munitions dump areas and focuses on municipal and human waste. Please thoroughly discussed the potential for HTRW and munitions dumping in this section. Based on Figure 77, this area should be investigated for the potential presence of HTRW and MEC. Please also discuss in this section landfill dump area associated with Waiakea Camp in Area 2.</p>	<p>Non-concur. The word “dump” in this military context is used to refer to a pickup station or collection area and not to a waste area or landfill. When referring to waste disposal sites in Maui, the military used "trash dump", "waste dump" or “garbage dump”. Other collection sites that also use the word “dump” include salvage areas (salvage dump) and ammunition storage areas (ammunition dump). As explained in Section 3.2.2.2, the dump in Area 13 was used for the temporary storage of fuel, ammunition, water, rations, and miscellaneous equipment debarked during amphibious landing exercises on Maalaea Bay. The available historical record does not include any evidence indicating the release of hazardous substances, pollutants, or contaminants to the environment from the former DoD open storage activities at the FUDS.</p> <p>The following footnote was added for clarification of the word “dump”: “The word “dump” in this military context is used as a synonym for “temporary storage” or “collection area” and does not to refer to a waste disposal area.”</p> <p>Also, there is no evidence of the presence of a landfill or waste dump at Waiakea Camp. The “dump” that is referenced in Section 2.2.1.6</p>

	<p>corresponds to an “ammunition dump”, which was used for the storage of ammunition. The footnote from above was also added to this section.</p> <p>Section 3.2.2.3 is revised to add the following information regarding Waiakea Camp:</p> <p>“The investigation team did not find records describing the Waiakea Camp waste practices nor if a waste disposal area existed at the camp. It is assumed that the Waiakea Camp followed standard Army waste management practices for the collection of garbage and salvable materials.”</p>
<p><u>Section 3.4.4, Page 115 (PDF p. 131), Figure 83; and Section 3.4.5.1, Page 116 (PDF p. 132), Figure 84: Recommend including the red boundary in the figure legend.</u></p>	<p>Concur. Legends revised.</p>
<p><u>Section 3.4.5.2, Page 118 (PDF p. 134), Figure 86:</u></p> <p>a) Is the Napalm Bomb Target Range shown in the figure the red circle or the square boundary? Please make the Napalm Bomb Target Range boundary clear in the figure.</p> <p>b) Should the (j) area be noted at a historical range in the legend? Please confirm that the bridge and two structures should be identified as a range.</p>	<p>a) Concur. Legend revised.</p> <p>b) Partially Concur. The bridge (j) depiction in magenta and two structures (k) in red were added to the legend. However, these are not historic ranges but land features not related to DoD activities at the site.</p>

<p><u>Section 3.4.5.2, Page 119 (PDF p. 135) and Figure 87:</u> The (k) noted areas in the figures are not mentioned in this section. Please discuss and describe the (k) areas in the Section 3.4.5.4 text.</p>	<p>Concur. Text moved and revised for clarification.</p>
<p><u>Section 3.4.6.1, Page 122 (PDF p. 138), Figure 90:</u> Recommend including the red boundary depicted within Waiakea Camp in the figure legend.</p>	<p>Concur. Legend revised.</p>
<p>Section 3.4.6.2, Page 124 (PDF p. 140), Figure 92:</p> <ul style="list-style-type: none"> a) Is the Napalm Bomb Target Range shown in the figure the red circle or the square boundary? Please make the Napalm Bomb Target Range boundary clear in the figure. b) As the legend indicates the red outline as "Proposed Napalm Bomb Target Range," please evaluate if the bridge (j) on the bottom right should be identified as such. 	<ul style="list-style-type: none"> a) Concur. Legend revised. b) Noted. The bridge is not considered part of the target range. Legend has been revised.

<p><u>Section 4.1.1:</u></p> <p>a) Page 127 (PDF p. 143), 2nd paragraph, 2nd sentence: Please include hand grenades, 20mm projectiles, white phosphorus grenades, smoke rounds, flares, etc. in the sentence, which were all noted within the report as having been found in Area 12.</p> <p>b) Page 128 (PDF p. 144), 1st paragraph, 2nd sentence: Please correct this sentence as two items were recovered in Area 13 (e.g., M49 and MK23) and disposed of by detonation.</p> <p>c) Page 128, (PDF p. 144), 2nd paragraph, 2nd sentence: Please revise the sentence to reference the the updated EM 200-1-15, dated 27 February 2024, and ensure the same application applies as is stated within this paragraph concerning munitions constituents (MC).</p>	<p>a) Noted. Text edited to read as follows: "Munitions used on Area 12 Artillery Impact Area included small arms, mines, pyrotechnics, artillery projectiles ranging from 20-mm up to 155-mm, 60-mm and 81-mm mortars including: HE and WP projectiles, hand and rifle grenades, bombs, 2.36-inch "bazooka" rockets, 3.55-inch SSR rockets, and 4.5-inch "beach barrage" rockets (refer to Section 4.1.4 for a list of conventional munitions used)." Since this is only a summary, the team did not list all types of projectiles, grenades, explosives, pyrotechnics, etc., suspected at the site. For a detailed list of such items, the reader can refer to Section 4.1.4.</p> <p>b) Noted. Text has been revised for clarification. The sentence in 4.1.1 is referring to EOD incidents within Area 13's maneuver area outside of the fortified area, of which there was only one (the M49). The MK23 was found not in-situ within the Fortified Area of Area 13.</p> <p>c) Noted. Reference to the guidance deleted as it does not apply to the PA stage but to the RI stage of the CERCLA process.</p>
<p><u>Section 4.1.2, Page 129 (PDF p. 145), Table 4.1.2:</u> Please include all areas of the FUDS to this table (e.g., Areas 2, 12, and 13), including the potential underwater munitions area off-shore of Area 13. Refer to Comments #1, 2, 3, and 4.</p>	<p>Partially Concur. Table updated to add Maneuver Areas 2 and 13.</p> <p>As stated in responses to Sp. 4 and 22, the activities performed on the offshore area adjacent to Area 13 only included amphibious landing and disembarking of personnel and equipment. Underwater demolition training was conducted on the land and offshore area west of Area 12 associated with underwater demolition training pertain to Kamaole Training Base FUDS Property No. H09HI0157,</p>

	<p>which is therefore not eligible under the Kihei Artillery Range FUDS. Refer to responses to Sp. 4 and 22 for additional information.</p>
<p><u>Section 4.1.3.1, Page 131 (PDF p. 147):</u></p> <p>a) 1st paragraph, 1st sentence: Please revise as necessary, as M7B1 is a firing system and not a munition.</p> <p>b) <u>Figure 96</u>: Recommend including only the square boundary for the Proposed Napalm Bombing Target in this and all other applicable figures. The 15-ft rock pile in the center is a feature of the range and doesn't need to be portrayed, as this might make one believe the circle area is excluded. In addition, the 15-ft diameter would not be close to scale.</p>	<p>a) Concur. Text revised.</p> <p>b) Non-concur. As shown in the revised legends requested in Sp 32 and 35, the circle is not portraying the 15-ft rock pile but the 400-ft radius proposed target impact area as depicted in the 1945 Historical Map for the proposed Napalm Range. The square is the maximum footprint for the safety zone of the range. Simplifying the proposed Napalm Bombing Target Range into only the square is misleading and may lead readers to believe the impact area is the entire footprint. Legend revised to add the circle depiction of the target impact area.</p>
<p><u>Section 4.1.3.2, Page 133 (PDF p. 149):</u></p> <p>a) 1st paragraph, 1st sentence: The maps and historical references regarding the military not being able to fire munitions "on" the area are tenuous since the same designation of "no firing" applies to the maneuver area in the north of Area 12, according to the 1945 maps (i.e. Figure 53). That area clearly had evidence of munitions use as seen during the USACE Project Visits. The statement that the maneuver areas were used for firing artillery into the impact area is a reference that munitions were</p>	<p>a) Partially Concur. The entire Area 13 is included as an AOI in the PA. Regarding the 1945 "no firing" area north of Area 12, this was included as part of the Impact Area AOI because earlier depictions of the impact area included portions of the subsequent depicted "no firing" areas and USACE confirmed MEC use within the boundaries of the "revised artillery firing range" during the site visit. This is not the case for the additional "no firing" areas. Neither historical maps, textual records, nor reconnaissance of the site revealed that the areas were used for other than maneuver with no</p>

<p>used in Area 13 and as a result, Area 13 should advance to an SI. Refer to Comment #2.</p> <p>b) 1st paragraph, 1st and 3rd sentences: The two sentences seem contradictory in that the first sentence states that no ammunition could be fired on Area 13, yet the third sentence states that the maneuver areas were used for artillery firing. If artillery were fired from Area 13 to Area 12, then the ammunition was in fact fired “on” or from Area 13. Please revise this paragraph so that the sentences do not contradict each other.</p> <p>c) 2nd paragraph: This paragraph references munitions use in Area 13. While the target might have been the fortified area, the firing could have taken place from the area not marked as "fortified", thus the potential for DMM cannot be ruled out at this stage.</p> <p>d) 2nd paragraph, last sentence: An AN-MK23 was found in Area 13 and disposed of, so it is assumed that use of practice bombing with spotting charges took place somewhere in the FUDS. Please edit the sentence accordingly.</p> <p>e) Last paragraph, 2nd sentence: Please specify if these “unfired rounds” were SAA or 20mm projectiles</p>	<p>firing training.</p> <p>b) Partially Concur. Text revised to include that maneuver areas in Area 13 were also used to fire towards the Fortified Position within Area 13. However, there is no evidence that the maneuver areas labeled as “no firing” in Area 13 were used as an impact area. Furthermore, “firing from” versus “firing on” are completely different statements; thus one cannot assume that ammunitions were fired “on” Area 13 Maneuver Areas if records clearly say that “no ammunition could be fired on the area”.</p> <p>c) Concur. The entire Area 13 is included as an AOI in the PA. Noted. A single munition item found at the site is not sufficient evidence to state that practice bombing with spotting charges took place somewhere within Area 13, especially when evidence suggests that that the item was not in- situ. Furthermore, historic evidence does not support that this activity occurred at the FUDS. Text edited to add the following: “Historical documentation does not suggest how the miniature practice bomb could have been found as available records do not document that the military used miniature practice bombs for training at the FUDS.” “Consequently, item appeared to have been moved from other training areas within Maui.”</p>
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<p>Section 4.1.3.3, Page 135 (PDF p. 151), 1st paragraph:</p> <p>a) <u>First three sentences</u>: The first two sentences contradict the third sentence. The first two sentences state that munitions training included firing, yet the third sentence indicates no live firing. Please revise this paragraph so that the sentences do not contradict each other.</p> <p>b) b. This paragraph describes activities that make the potential for DMM to be possible, which cannot be ruled out with the limited sampling conducted during this PA. Refer to Comment #3.</p>	<p>a) Concur. Sentence revised to read: "Restrictions for the use of the maneuver area included no live firing into the maneuver area."</p> <p>b) Concur. Refer to response to Comment 3.</p>
<p>Section 4.1.4, Page 136 (PDF p. 152), Bombs, 2nd bullet: Recommend correcting the typo "AN- MK 3 Mod 1" bomb to "AN- MK23 Mod 1" bomb.</p>	<p>Concur. Text revised.</p>
<p>Section 4.3.1, Page 138 (PDF p. 154), 3rd paragraph, last sentence: Although the PA did not identify any specify target locations, MC must be investigated during the SI and/or Remedial Investigation (RI) should any high use areas (HUAs) or small arms ranges be identified.</p>	<p>Noted. Table 4.1.2 lists that there is an MC Potential within the munitions related AOIs.</p> <p>However, although the PA forms the basis for USACE identification of eligible FUDS Projects, specific FUDS Project recommendations cannot be made in the PA. FUDS Project recommendations for locations where a release or threat of release is identified are made in the INPR.</p>

<p><u>Section 5.2.2, Page 141 (PDF p. 157)</u>: As Figure 77 shows a detailed dump plan depicting numerous dump areas of various material, it is unclear why these dump areas are excluded from discussion in this PA. Please discuss the dump areas depicted in Figure 77 and their potential for HTRW and DMM. The dump areas should be considered AOPIs for future investigation under CERCLA. Refer to Comment #30</p>	<p>Non-concur. The word “dump” in this military context is used to refer to a pickup station or collection area and not to a waste area or landfill. There is no evidence of the presence of a landfill or waste dump at the FUDS. Refer to response to Comment 30.</p>
<p><u>Section 8, Page 144 (PDF p. 160)</u>: Please provide a pathway and environmental hazard assessment for potential HTRW associated with the dump areas depicted in Figure 77. Refer to Comments #30 and 43.</p>	<p>Non-concur. Refer to Comments #30 and 43.</p>
<p><u>Section 8.2, Pages 148-149 (PDF pp. 164-165)</u>: This section appears to discuss the exposure pathways for MC but fails to mention the exposure pathways for MEC. MEC may become uncovered or transported following large rain events in riverbeds. Please discuss the exposure pathways for MEC following heavy rain events in either Section 8.2 or 8.3. This was seen in Waikoloa Maneuver Area where hand grenades were found in riverbeds following heavy rains.</p>	<p>Concur. Text revised.</p>
<p>Section 8.3.2, Page 151 (PDF p. 167), 1st paragraph, last sentence: Please explain what “handle/thread underfoot” is.</p>	<p>Concur. Text revised for clarification.</p>

<p><u>Section 9.1, Page 153 (PDF p. 169),</u> <u>Section 9.1, Summary and</u> <u>Conclusions:</u> Historical evidence confirms the much of the area outside the two identified AOPs as maneuver areas.</p> <p>EM 200-1-15, dated 27 February 2024, states that maneuver areas are classified as LUAs where munitions cannot be ruled out. The limited sampling conducted during the PA was not adequate to determine that the maneuver areas do not pose a MEC risk and therefore, the historical evidence alone should satisfy the need for Area 2 and 13 to advance in the CERCLA process for further investigations. Refer to Comments #1, 2, and 3.</p>	<p>Concur. Areas 2 and 13 included as AOIs in the PA.</p>
<p><u>Appendix B, Page B-24 (PDF p. 243),</u> <u>Reference 364- 265:</u> Please update EM 200-1-15 to the current edition.</p>	<p>Noted. Reference deleted. Refer to response Sp. 36.</p>
<p><u>Appendix H, Pages H-5 and H-8 (PDF pp. 279, 282), Figure 2 and Figure 3:</u> Please clarify what the green circular polygon located in the inside the “Fortified Area” signifies.</p>	<p>Noted. Figures fixed.</p>

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Report Submittal for HEER Office (Assessment and Remediation Related Reports; NOT Written Release Notification Forms; NOT HEPCRA TIER II Forms)

version 1.3

(Submission #: HQ9-W5QM-5CC9K, version 1)

Details

Submitted 1/23/2025 (0 days ago) by Edwyna Brooks
Submission ID HQ9-W5QM-5CC9K
Submission Reason New
Status Accepted

Form Input

1. Site Information

Enter the Site Name and iHEER ID if Provided

The Site Name/iHEER ID will appear on all correspondence, and official files.

Site Name and iHEER ID (if provided)

Kihei Artillery Range

Is this a new Site/Project?

No

Name of Assigned HEER Project Manager

Jennah Oshiro

Contractor/Consultant's Name

Edwyna Brooks

Affiliation of Contractor/Consultant/Person Submitting Report

USACE

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Potential Responsible Party's (PRP's) Name

n/a

PRP Address

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Honolulu, HI 96858

e-mail Address of PRP

nobody@gmail.com

Phone Number of PRP

5555555555

Provide the Site Address

The site address is the physical address of the facility.

Address of Facility

529 Kealaloa Ave
Makawao, HI 96768

TMK(s) of the Site (no dashes, no colon). Enter in following Form: DZSPPPppp; D=District, Z=Zone, P=Plat, p=parcel
NONE PROVIDED

Site Project Coordinates - Click on map to show location of contamination

20.768458012465832,-156.39598562402344

2. Report Information (Subject)

Subject/Title

Kihei RTC Memo

Date of Document

1/23/2025

Revision or Version Number

NONE PROVIDED

3. Upload Report and Supplemental Information

Upload Report & Supplemental Information

[HDOH MEMO RTCs for PA for Kihei Artillery Range.pdf - 01/23/2025 06:23 PM](#)

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Comment

NONE PROVIDED

Attachments

Date	Attachment Name	Context	Confidential?	User
1/23/2025 6:23 PM	HDOH MEMO RTCs for PA for Kihei Artillery Range.docx	Attachment	No	Edwyna Brooks
1/23/2025 6:23 PM	HDOH MEMO RTCs for PA for Kihei Artillery Range.pdf	Attachment	No	Edwyna Brooks

Status History

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1/23/2025 6:16:42 PM	Edwynna Brooks	Draft
1/23/2025 6:24:13 PM	Edwynna Brooks	Submitting
1/23/2025 6:24:16 PM	Edwynna Brooks	Submitted
1/24/2025 8:04:45 AM	Mayara Silva	Accepted

Audit

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Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Edwynna Brooks	1/23/2025 6:24:16 PM