## PUBLIC MEETING #1 REMEDIAL INVESTIGATION – FORMER WAIKOLOA MANEUVER AREA, SECTOR 16 (PROJECT 20)





U.S. ARMY

## **PUBLIC MEETING #1 MEETING GOALS**

- Meet the Project Team
- **Review Site Background and History**
- Explain the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process and past investigations
- Discuss the supplementation Remedial Investigation-objectives, steps, and what landowners can expect
- Provide a forum for landowner concerns

Please save any questions. A question-and-answer period will be provided at the end of the meeting.



#### U.S. Army Corps of Engineers

David Griffin – Waikoloa Maneuver Area (WMA) Program Manager (Honolulu)

Laura Kelley – Project Manager (Huntsville)

Julie Ange – Technical Manager (Huntsville)

Richard Perry – Geophysicist (Huntsville)

Benjamin Konshak – Geophysicist (Honolulu)

Steven Jones, Joshua Byrd, Sonny Pothis, Dwayne French – Ordnance and Explosives Safety Specialists

<u>Hawaii Department of Health</u> Sven Lindstrom – Project Manager Jennah Oshiro – Project Manager

<u>HydroGeoLogic Team</u> Lael Feist – Project Manager Kelsey Orr – Deputy Project Manager Steven Brown – Technical Manager Darlene Ige– Public Affairs Specialist (Nakupuna)



### US Army Corps of Engineers.

U.S. ARMY of E

AGC	advanced geophysical classification
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
HE	high explosive
HUA	high use area
LUA	low use area
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter
MRS	munitions response site
NEU	no evidence of use
WMA	Waikoloa Maneuver Area





• Sector 16 (Project 20 Munitions Response Site [MRS]) consists of approximately 6,600.8 acres located in the northwest section of the Waikoloa Maneuver Area (WMA).





- The U.S. Marine Corps acquired over 220,000 acres in South Kohala in December 1943. The 2nd and 5th Marine Divisions used portions as an artillery firing range where live ammunition and other explosives were employed, troop maneuvers, and the largest encampment (i.e., Camp Tarawa) on the island of Hawaii
- 2nd Marine Division Land Use:
  - On the 1943 Proposed Training Area Map -"No Firing to be Allowed in this Area"
  - On a 1944 map the area was designated as "maneuver area" but had portions within or adjacent to impact areas



Camp Tarawa (Credit: Waimea Gazette, March 1995)



5th Marine Division Land Use:

- Training at Camp Tarawa in full-scale amphibious maneuvers in preparation for the 1945 landing on Iwo Jima.
- 5th Marine use occurred under the 10 April 1945 license with Parker Ranch.
- According to the 5th Marine Division Land Use Map, the MRS was located within the "Maneuver Area 1 Non-Firing" portion of WMA.



Sector 16, 5th Marine Division Land Use (Marine Camp Hawaii Annex C Camp Tarawa Combat Area, 03 January 1945)



- Kohala Mountain borders it on the north, Kawaihae Harbor on the west, Waimea village to the east, Kawaihae Road/Highway 19 to the south.
- It is owned by several large landowners and multiple small private landowners.
- The MRS contains residential subdivisions, grazing/pastoral land, hunting areas, and industrial land. The Hawaiian Preparatory Academy is located on the eastern edge of the MRS. Additional residential/commercial development may occur in the future.





Found in the MRS:

- Hand Grenades (MKII High Explosive [HE])
- Unidentified mortar (tail fins found in 2020)

Found in adjacent MRSs:

- Projectiles (37 millimeters [mm], 75mm AP-T)
- Mortars (60mm, 81mm)
- Rockets (4.5-inch Barrage)
- Rifle grenades (M9 and M9A1)
- Hand grenades (M18 Smoke, M15 White Phosphorus [WP], MKII HE)



**U.S. ARMY** 

Ę

## **MUNTIONS AND EXPLOSIVES OF** of Engineers. CONCERN/MUNITONS DEBRIS FOUND IN **PREVIOUS INVESTIGATIONS**







## US Army Corps of Engineers.



Ē



(U.S. Army Corps of Engineers Environmental Regulation 200-3-1, FUDS Program Policy, September 2020)



U.S. ARMY

# US Army Corps of Engineers.

### Objective: to define the nature and extent of MEC and munitions constituents (MC)





- Remedial Investigation began in 2018; the current fieldwork is supplemental.
- No MEC was found in the MRS.

U.S. ARMY

- 6 MD items were found at 5 locations: 1 firing device, 4 fragments, 1 Mk II Hand Grenade fuze. Most found in Sector 16B.
- Geophysical sensor used: PDM8<sup>®</sup> (a sensor comparable to digital geophysical mapping sensors that is less susceptible to geologic interference).
- Transect paths are shown on the next slide.



15



**U.S. ARMY** 

# US Army Corps of Engineers. 2018 REMEDIAL INVESTIGATION RESULTS





#### US Army Corps HISTORICAL DATA REVIEW

Data gaps in previous investigations were identified:

- Areas Lacking Right of Entry
- Areas with Powerline Interference
- Extent of Munitions Debris near Hand Grenade Area (Sector 16B')

Supplemental data is needed to fill these gaps and to classify the MRS into high, low, and no evidence of use areas.







- Why are we collecting supplemental data?
  - To resolve data gaps in the 2018 RI data
  - To classify the MRS into High Use Areas (HUAs), Low Use Areas (LUAs), or No Evidence of Use (NEU) areas
- What types of activities are proposed?
  - <u>LANDOWNER COORDINATION</u>: where rights of entry are granted, USACE and contractors will coordinate access
  - <u>DETECTION OF MUNITIONS</u>: Advanced geophysical classification (AGC) surveys on transects and in grids
  - INTRUSIVE INVESTIGATION: hand digging at select locations
  - MEC DISPOSAL: If munitions items are found, they will be destroyed
  - <u>SOIL SAMPLING</u>: soil samples may be collected by hand at select locations
- When are the proposed activities supposed to start?
  - January 2024
- How long are the proposed activities anticipated to last?
  - October 2024



## **RIGHTS-OF-ENTRY (ROE)**

- USACE obtains ROE prior to accessing private property to conduct field work.
- USACE and team will coordinate access prior to entering on property.
- Many ROEs have been obtained for the Sector 16 RI project; thanks to landowners who have already responded.
- Anyone still want to discuss an ROE, please speak to USACE. Would like to resolve remaining ROE applications by end of November 2023.



## LANDOWNER COORDINATION

If I sign the ROE, will USACE access my property whenever they want?

### No!

- USACE and contractors will always coordinate with the landowner, or tenant, PRIOR to accessing property.
- Landowners will be contacted well in advance of access to give all parties an opportunity to coordinate.
- Contractors will not leave any equipment on landowner property.
- Mutliple visits to a single property may be needed.



- Conduct 35 miles of transect surveys with the APEX sensor, or MPV sensors in steeper areas; complete 9 acres of grid surveys in residential areas
- Estimate anomaly densities and delineate into high, low, and no evidence of use areas





# US Army Corps of Engineers. DETECTION: PRELIMINARY CHARACTERIZATION

Fieldwork will be within the data gap area:





**U.S. ARMY** 

# US Army Corps of Engineers. PRELIMINARY CHARACTERIZATION (CON'T)

Characterization Transects





### **PRELIMINARY CHARACTERIZATION (CON'T)** US Army Corps of Engineers®

Characterization Transects

1101

Ę

**U.S. ARMY** 





**U.S. ARMY** 

## PRELIMINARY CHARACTERIZATION (CON'T)

Characterization Transects



#### US Army Corps of Engineers. PRELIMINARY CHARACTERIZATION (CON'T)

Characterization Transects

**U.S. ARMY** 





U.S. ARMY

## **PRELIMINARY CHARACTERIZATION -**US Army Corps of Engineers. POWERLINE ASSESSMENT

Test AGC equipment capabilities adjacent to powerlines:

- Small test items will be buried horizontally at depths of 10-25 centimeters at distances of 0 ft (directly under), 100 feet, and 200 feet from the powerlines.
- APEX data will be collected along • transects near the powerlines to determine if single-pass classification is possible in those areas. If it is not, additional technologies may be evaluated.



## ULS. ARMY OF Engineers. PRELIMINARY CHARACTERIZATION -US. ARMY OF Engineers. GRENADE DEBRIS NEAR SECTOR 16B'

 An additional 2.3 miles of 124-ft spaced transects will be completed outside of the Grenade Debris Area, Sector 16B'

Ē





**U.S. ARMY** 

# ADDITIONAL CHARACTERIZATION

- Place AGC grids (for 100% survey) in high density and/or low density areas
- Intrusively investigate targets of interest in grids and/or transects
- Determine munitions-use related boundaries: high use areas (high probability for MEC), low use areas (some MEC may be present), and no evidence of use (no MEC is expected)



Some locations will be intrusively investigated with hand tools. When intrusive operations are in progress an exclusion zone will be established for safety purposes.





## US Army Corps INTRUSIVE INVESTIGATION

U.S. ARMY of Engineers®

- If the contractor returns to excavate a suspected munitions item, the hole tends to be relatively small, less than 2 feet in diameter. It will be re-filled.
- Landscaping will be restored.
- Contractors will not disrupt or investigate under permanent structures such as houses, buildings, fences, and driveways.





When MEC is discovered, explosives will be used to dispose of the item and render it safe.



Disposal of MEC via detonation



## **SOIL SAMPLING ACTIVITIES**

In areas of high munitions use, soil sampling will be performed to determine if any releases of munitions constituents (MC) from munitions have occurred

- Sample unit locations will be placed where high concentrations of MEC/MD were identified.
- Surface soil will be collected using hand tools as soil plugs over 100 ft by 100 ft areas. Holes will be backfilled, and landscaping will be restored.
- Results will be compared to Project Action Limits to determine if additional sampling is needed.





Following completion of fieldwork in October 2024, the remedial investigation report will be available for public review on USACE's Honolulu District website (projected for September 2025).

If you have questions regarding the project, please contact Mr. David Griffin, USACE WMA Program Manager at (808) 835-4079, or send an email to: WMAUXOInfo@usace.army.mil