



U.S. ARMY®



# Dugway Community Town Hall

Tuesday, 15 November

Dugway School Auditorium & Facebook Live



# Agenda

- ✓ **Intro: New Community Members**
- ✓ **CFC Campaign**
- ✓ **Housing Project Updates**
- ✓ **Safety**
- ✓ **EEO**
- ✓ **Commissary/AAFES**
- ✓ **Chapel/Services**
- ✓ **FMWR Community Programs & Services**
- ✓ **Holiday Hours**
- ✓ **ICE Feedback**
- ✓ **Garrison Manager**
- ✓ **CSM Rawls**
- ✓ **COL Hoffman**
- ✓ **Community Open Discussion**
- ✓ **Closing Comments**
- ✓ **Army Environmental Command**







Please Welcome  
Dugway's Newest  
Resident!

**Aamir O'Neal McDonald**

Born: 9 Nov 2022, 0407 hours  
Place of Birth: English Village Housing





# Combined Federal Campaign

YOU CAN BE THE  
**FACE  
OF CHANGE**



Mountain States Campaign  
Unit Code: YKM5WE



## JOIN US!

Who

**Changemakers:**

**All federal employees and retirees**

What

**2022 Combined Federal Campaign**

When

**Sept. 1, 2022 – Jan. 14, 2023**

Why

**Change the world together**



**DONATE TODAY AT GIVECFC.ORG**

HOSTED BY THE U.S. OFFICE OF PERSONNEL MANAGEMENT





# DPW – Housing Projects

- **Fencing Project:** Complete
- **Pinyon Drive Project:** Curb and gutter, sidewalk, and driveways complete
- **Project Awarded:** Replace sidewalk, curb and gutter, and some driveways throughout the housing areas
- **Mountain View HVAC Project:** The housing office is working with residents to schedule housing units for work to be completed.







## Holiday Season Safety

- Check holiday light cords to make sure they aren't frayed or broken. Don't string too many strands of lights together. No more than three per extension cord. Turn them off when leaving the house or going to bed.
- Ensure artificial trees are fire resistant with label.
- If getting a live tree, make sure its fresh and water it daily.
- Ensure decorations are fire safe.
- When decorating outside, make sure decorations are for outdoor use and fasten lights securely to you home or trees to avoid electrocution or fire hazards.
- When using a ladder, be extra careful. Wear shoes that allow for good traction.
- Keep children, pets and decorations away from candles.
- Remember to practice safe distance guidelines with large gatherings.
- Be responsible to you, your family, and friends. Check on neighbors that may need assistance during the holiday season.

**Happy Holidays!**





# Harmful Behaviors

Army culture is grounded in our values of

**Loyalty**

**Duty**

**Respect**

**Selfless Service**

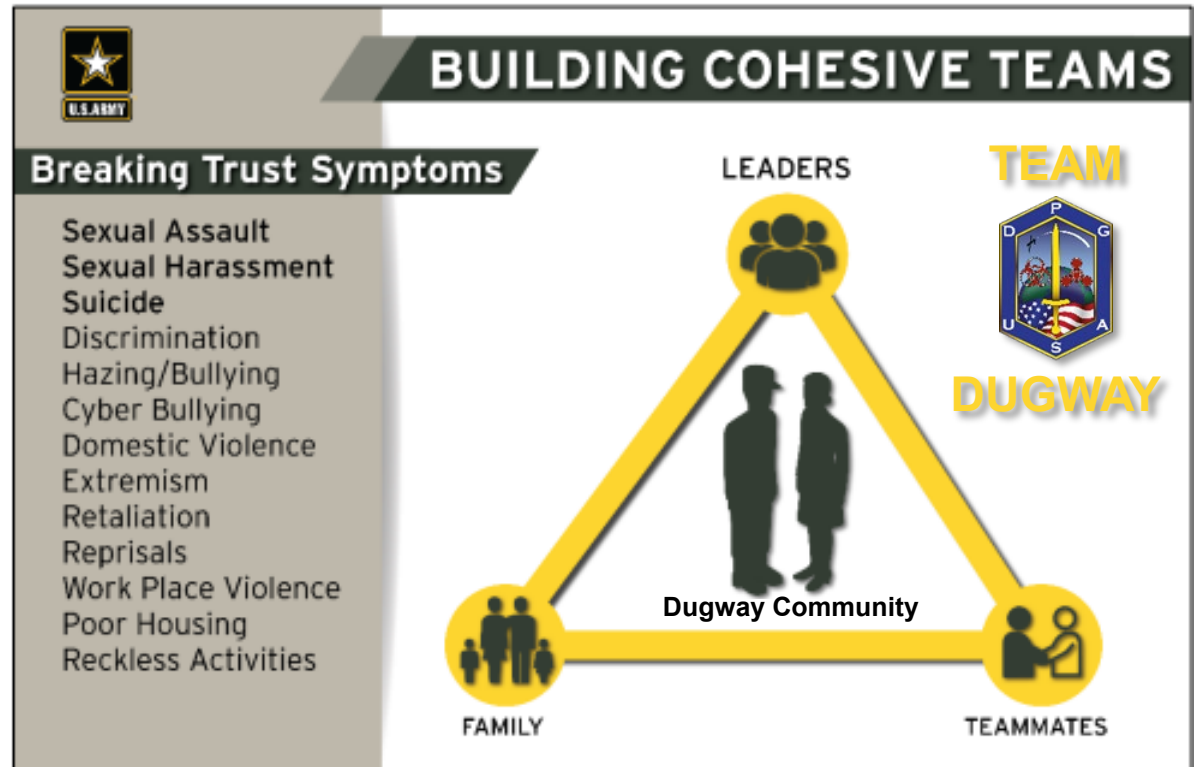
**Honor**

**Integrity**

**Personal Courage**

None of use can just be bystanders, we all have an obligation to intervene.

We all need to take steps to prevent and protect our family and coworkers from Harmful Behavior



If permitted to persist, these behaviors can break trust within our team and community

## Dignity, Respect, & Empathy





## Please Welcome:



**Hello**  
my name is

Laurel H. Dunn







# DeCA



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Order at [shop.commissaries.com](https://shop.commissaries.com)

Or

Use the **Digital Garrison App**





# Religious Support Office

We are here to serve you and your family!!

## Christmas Services

Thursday  
15 December

Sunday  
18 December

## Worship Service

Protestant  
Sundays @ 1300

Catholic Mass  
Wednesdays @ 1800

### Contacts:

**CH (MAJ) Brian Kimble**

**SGT Charles King**

DSN: 435-831-2431

Cell: 229-326-8034





# Religious Services & Counseling Resources:

- **SAMHSA National Hotline:** 1-800-662-4357  
(Mental/Substance Abuse disorders. English and Spanish)
- **Suicidepreventionlifeline.org:** 1-800-273-8255 or call 988
- **Dugway Emergency Call 911** or 435-831-2929 Dispatch
- **SafeUT Crisis Chat and Tip Line:** 833- 372-3388  
or the Safe UT app on your phone.  
Office: 435-831-3611
- **211utah.org**  
Dial 211 to connect with services such as food resources, legal aid, education, transportation and more.
- **National Human Trafficking Resource Center:** 1-888-373-7888  
or the Utah Attorney General Tipline: 801-200-3443







# Army Community Services

## ARMY COMMUNITY SERVICES

### Family Advocacy Program

#### Arzu Twitty (FAPM)

**Office:** ACS Building

**Office Hours:** M-TH, 07:00-17:30

**Office Phone:** (435) 831-2260

**Email:** arzu.twitty2.civ@army.mil



#### Diane Singh (SARC/VA)

**Office:** ACS Building, Rm #237

**Office Hours:** M-TH, 07:00-17:30

**Office Phone:** (435) 831-2120

**Email:** diane.m.singh.civ@army.mil

**24/7 CRISIS HOTLINE**

**(435) 830-8896**





# MWR Happenings

- **Nightly Movies at the Club!** Starting at 1830, check Facebook/App for Movie Schedule.
- The Community Club Bar is open Wednesdays from 1800-2000 and Thursdays from 1800-2200.
- **Join CYS for Santa's Workshop**, 1 December at 1700. Come bring your family to make some fun crafts, a chance to speak with Santa, and take a beautiful family portrait. Also held during this time will be the **ACS Chili Cook-Off!**
- CYS has open enrollment for both Preschool (full-time and part-time) and School Age (before and after school). Contact CYS @ 3345 for more information.
- CYS Teen Room is open, every Wednesday from 1530-1800. All children must be registered to attend!
- Contact ACS for all of your family's needs. They offer services such as Family Advocacy, Relocation Readiness Program, and EFMP. Call ACS Chief, Greg Mason at (435) 849-1238 for any of these services.



Contact Information available on Digital Garrison App





# Santa's Workshop & Chili Cook Off







# FMWR Feedback Request

Dugway FMWR is exploring going Cashless at all its locations next year.

Please use the QR code (ICE) to provide us with Feedback regarding how this might impact your family's usage of our facilities.



Additional signage will be placed in our facilities requesting Feedback





# Holiday Hours

## Shocklee Fitness Center (**unmanned**)\*, Outdoor Recreation, Library, CYS & ACS Programs

- Thanksgiving Day CLOS
- Christmas Eve CLOS
- Christmas Day CLOS
- New Year's Eve CLOS
- New Year's Day CLOS



- Thanksgiving Day CLOS
- Christmas Eve 1000 -1600
- Christmas Day CLOS
- New Year's Eve 1000 -1600
- New Year's Day 1000 -1600

## Ditto Diner & Community Club

- Thanksgiving Day CLOS
- 22 December – 2 January CLOS



- Thanksgiving Day CLOS
- Christmas Eve 0900 -1600
- Christmas Day CLOS
- New Year's Eve 0900 -1600
- New Year's Day CLOS

**Shocklee Fitness Center will be unmanned only.  
Access 24/7 by calling dispatch at 2929**





# Questions







## Mr. Brent Wilder



Community Town Hall  
Ice Comments





## Mr. Chris Damour





## CSM Rawls







## COL Hoffman





# Closing Comments

*A Great Place to Work,  
Live, and Play*



**TOWN HALL / COMMUNITY MEETING:  
DUGWAY PROVING GROUND  
SOUTHERN TRIANGLE AREA A MUNITION RESPONSE SITE  
PHASE II REMEDIAL ACTION/FEASIBILITY STUDY**

Lindsey Miller  
COR and Project Manager  
CEHNC

Keller Davis  
Project Manager  
APTIM

15-16 November 2022



US Army Corps  
of Engineers®



## PROJECT TEAM INTRODUCTIONS

- Army Environmental Command (AEC)
- Dugway Proving Ground (DPG)
- US Army Engineering Support Center – Huntsville (CEHNC)
- Utah Department of Environmental Quality (UDEQ), Division of Waste Management and Radiation Control (DWMRC)
- Utah Division of Environmental Response and Remediation (DERR)
- US Bureau of Land Management (BLM)
- APTIM Federal Services (APTIM)





# ACRONYM LIST

AEC – Army Environmental Command  
APTIM – Aptim Federal Services, LLC  
AGC – advanced geophysical classification  
APT – Assessment/Package/Transport  
BLM – Bureau of Land Management  
CA – chemical agent  
CEHNC – Corps of Engineers, Huntsville Center  
CSM – conceptual site model  
CSP – Chemical Siting Plan  
CWM – chemical warfare materiel  
DGM – digital geophysical mapping  
DPG – Dugway Proving Ground  
DHWRC - Division of Hazardous Waste and Radiation Control  
EM – electromagnetic  
EMT – emergency medical technician  
FS – Feasibility Study  
FUDS – Formerly Used Defense Site  
GPS – global positioning system  
HRR – Historical Records Review  
IHF – Interim Holding Facility  
MC – munition constituents

MD – munition debris  
MEC – munitions and explosives of concern  
MMRP – Military Munitions Response Program  
MRS – Munition Response Site  
PDS – personnel decontamination system  
QAPP – Quality Assurance Project Plan  
RCRA – Resource Conservation and Recovery Act  
RFI – RCRA Facility Investigation  
RI – Remedial Investigation  
RSG – Rising Sun Grid  
SI – Site Investigation  
STAA – Southern Triangle Area A  
TOI – target of interest  
UDEQ – Utah Department of Environmental Quality  
USACE – US Army Corps of Engineers  
UXO – unexploded ordnance





## **SITE DESCRIPTION AND BACKGROUND**

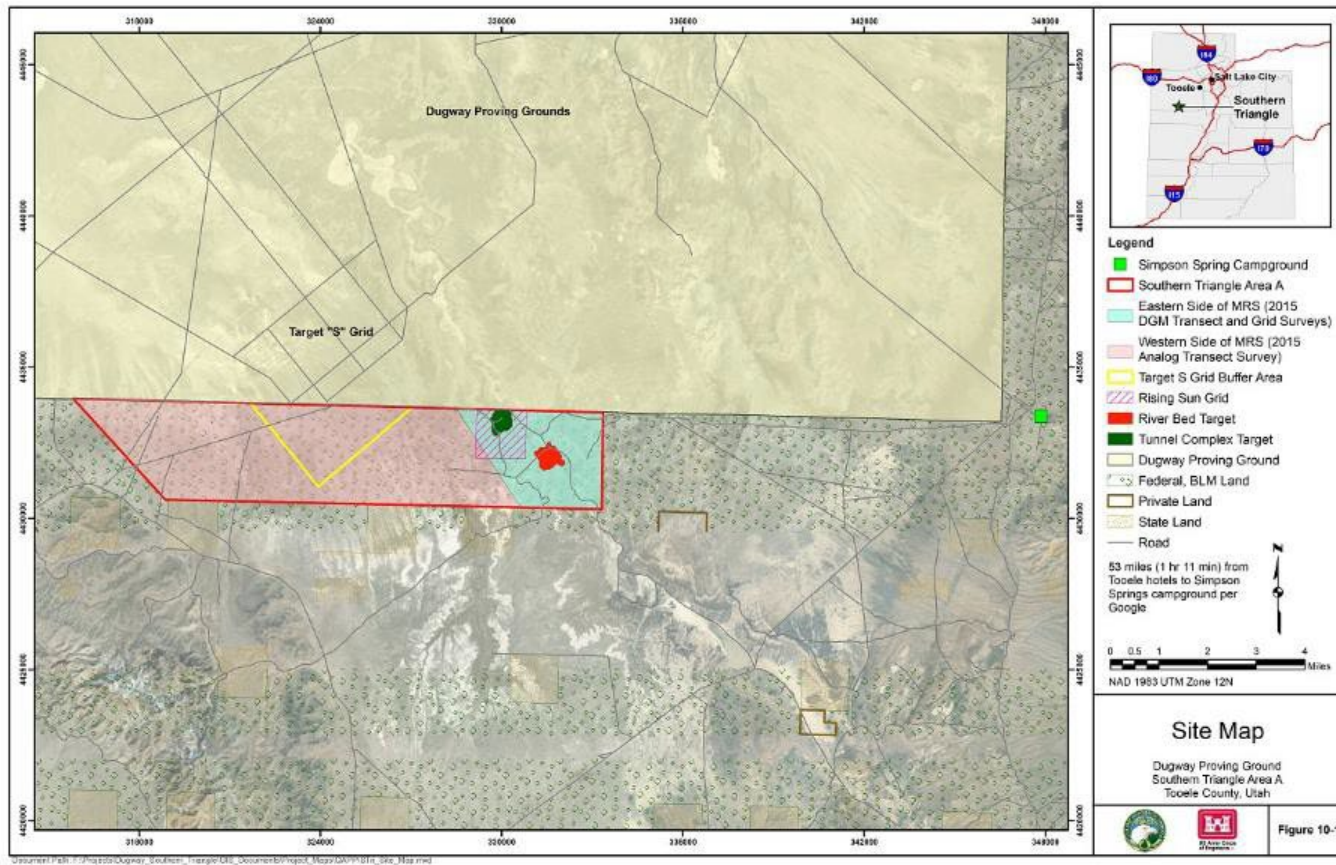
### **Southern Triangle Area A Munition Response Site (STAA MRS)**

- The 12,631-acre Southern Triangle Area A (STAA) MRS is located in Tooele County, southwest of Tooele, Utah.
- The STAA MRS is located adjacent to and outside the southern border of Dugway Proving Ground.
- STAA includes a safety buffer zone for Target S Grid and target areas for testing in the Rising Sun Grid (RSG) and River Bed Target.



# SITE MAP

5





## **SITE DESCRIPTION AND BACKGROUND**

- STAA has been used since the 1950s for a variety of ordnance tests, with some incorporating chemical agents (CAs) as filler for the munitions. Tests also included bombs air bursting over the Target S Grid.
- The Southern Triangle Area is a transferred site, meaning it is located off property currently owned or controlled by the Army and is currently managed by the Bureau of Land Management (BLM).





## PREVIOUS INVESTIGATIONS

- While test records exist, previous investigations and historical munitions response activities at the MRS are not well documented. Internal DPG documents from the 1950s to 1970s stated that the River Bed Target had been surface cleared of munitions and explosives of concern (MEC).
- Determination of Eligibility/Inventory Project Report (USACE April 1993) - The report concluded that the Southern Triangle Area was eligible for the FUDS program.
- Archives Search Report (USACE 1993) - The report concluded there was a potential for the presence of CWM in the Southern Triangle Area, and therefore recommended further action.



## PREVIOUS INVESTIGATIONS

- UXO/CWM Investigation and Engineering Evaluation/Cost Analysis (Montgomery Watson 1996) –
  - Visual and geophysical surveys and soil sampling were performed in the areas surrounding the Target S Grid Buffer zone and RSG.
  - Recommendations were made for three areas based on the geophysical surveys and soil sampling. A limited removal action was recommended for along with posting of signs and a land management plan.





## PREVIOUS INVESTIGATIONS

- Phase II RCRA Facility Investigation SWMU-15 (Parsons 2009) –
  - The RFI focused on the former RSG Tunnel Complex Target where the potential for buried materials would be highest.
  - Activities conducted during the Phase II RFI included GPS mapping of the area, geophysical surveys, and soil sample collection. Multiple geophysical anomalies were identified that were considered potential MEC.





## PREVIOUS INVESTIGATIONS

- Southern Triangle Area Historical Records Review (HRR)/Site Investigation (SI) (TLI 2009, 2010) –
  - An HRR was performed for the Southern Triangle Area to catalog known information for the MRS and support determinations for whether further response actions were necessary.
  - Along with the HRR, an SI was performed that included visual survey of approximately 118 linear miles (400.66 acres). No MEC was observed. Soil and sediment samples were collected with no explosives detected. Metals were detected in the samples at concentrations below screening levels.
  - SI recommended dividing the Southern Triangle Area into two munition response sites with Area A requiring additional investigation and Area B for “No Further Action”.





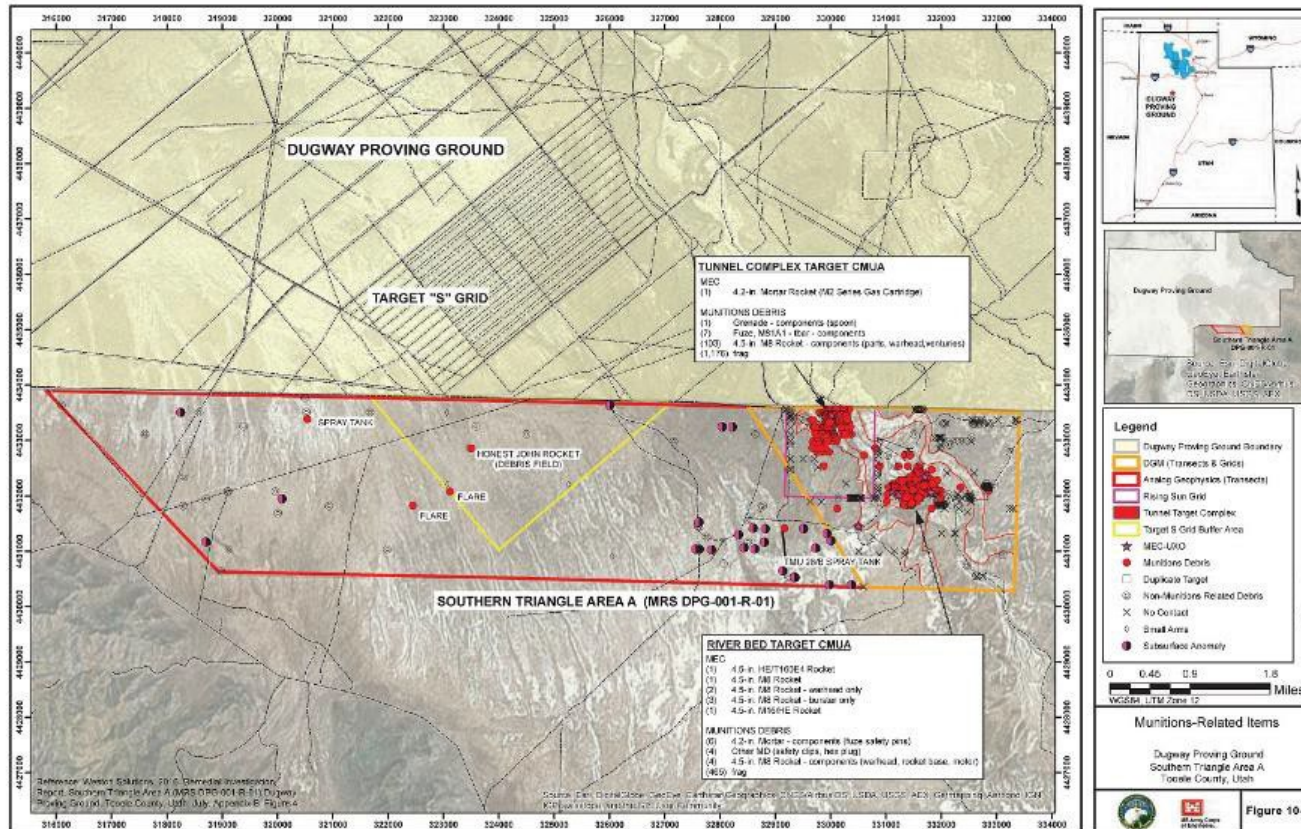
# PREVIOUS INVESTIGATIONS

- Phase I Remedial Investigation at the Southern Triangle Area A (STAA) MRS (Weston, 2015) - A phased approach was used to characterize MEC across the MRS.
- Analog instrument transect surveys were used in the western portion of the MRS
- Focused digital geophysical mapping (DGM) surveys were used in the eastern portion of the MRS.
- A total of 1,661 anomalies were identified by geophysical surveys, *of which 539 were left uninvestigated due to the early termination of field activities.*
- Nine MEC items were identified. Three of the MEC items were at the surface discovered by UXO personnel, five related to the River Bed Target, and one from the RSG.
- The item identified at the RSG was a 4.2-inch Mortar Rocket. The potential for the item to be CWM, and the potential for additional CWM to be present resulted in the termination of field investigation activities.





# MEC ITEMS FROM PREVIOUS INVESTIGATIONS





## PREVIOUS INVESTIGATIONS

- Phase I Remedial Investigation at the STAA MRS (Weston, 2015) cont'd -
  - Environmental sampling was performed to determine soil impacts from munition constituents (MC).
  - The sampling included six incremental soil samples from the MRS and eight incremental background samples collected to the south, outside of the MRS boundary.
  - No explosives were detected. The detected metals concentrations were similar to ambient soil.
  - The human health and ecological risk assessments determined that no potential concerns were present. However, the geophysical mapping had located and identified multiple MEC items.





## PREVIOUS INVESTIGATIONS

- Results from the Phase I RI –
  - Confirmed the presence of MEC and MD; however, the extent is not defined
  - *Potential for CWM exists; however, the extent is not defined*
  - Data gaps also include:
    - No digital geophysical record for the western side of the MRS.
    - On the eastern side of the MRS, the sloped riverbanks have no digital record, infill transects are incomplete for target area delineation, and grid surveys are incomplete for MEC characterization.
- **Addressing these data gaps provides the approach for completing the upcoming Phase II RI Field Work.**



# DATA GAP ANALYSIS



| Phase 1 RI Data Gaps and Phase II Survey Design |  |  |
|---|--|--|
| Area  | Phase 1 RI Data Gap  | Phase II Survey Design   |
| Western Side                                    | <ul style="list-style-type: none"><li>No digital record</li></ul>  | <ul style="list-style-type: none"><li>Perform Digital Geophysical Mapping along anomaly density transects</li><li>Perform Advanced Geophysical Classification (AGC) if high density areas are found</li></ul>  |
| Eastern Side                                    | <ul style="list-style-type: none"><li>Sloped riverbanks have no digital record</li><li>Target areas not adequately delineated</li><li>Intrusive investigation incomplete</li><li>Current preferred technology, AGC, not used</li></ul> | <ul style="list-style-type: none"><li>Collect digital data over the sloped riverbanks with UAV magnetometer</li><li>Perform infill transect surveys to refine target area boundaries</li><li>Perform AGC grid surveys in areas of high anomaly density</li><li>Complete intrusive investigation to fully characterize buried items</li></ul> |



## PHASE II RI/FS APPROACH

The overall goals of this project are to:

- Complete the characterization of the nature and extent of MEC and MC
- Identify Remedial Action Objectives
- Evaluate Remedial Alternatives
- Select a Remedy





## PHASE II RI/FS APPROACH (CONT'D)

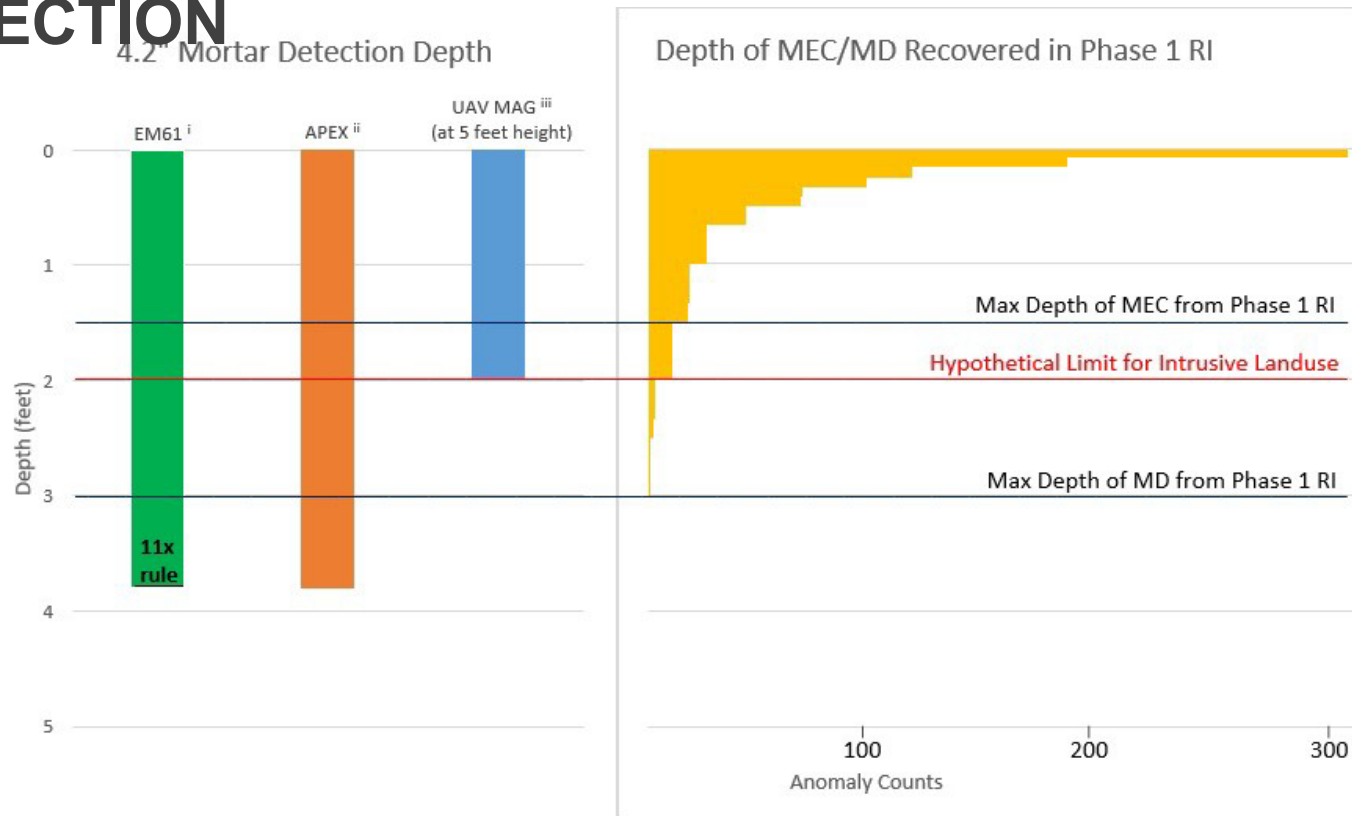
- Surface Clearance – items on the surface obstruct detection of subsurface items during geophysical mapping.
- Digital Geophysical Mapping
  - Transect mapping to identify areas of elevated subsurface anomaly density (potential target areas)
  - Unmanned aerial vehicle (drone mounted) magnetometers for steep terrain
    - Collect data in areas where man-portable surveys are less safe or data quality will be compromised
    - Sensor suspended from drone with nominal altitude of 5 feet or less



## PHASE II RI/FS APPROACH CONT'D

- Advanced Geophysical Classification (AGC)
  - Advanced sensor technology that can better determine if subsurface items are potentially munitions
  - Equipment and data processing more costly than standard geophysical equipment, but the ability to only dig up suspected munitions reduces overall field time and costs
  - AGC will be used in areas of increased anomaly density from DGM transect data

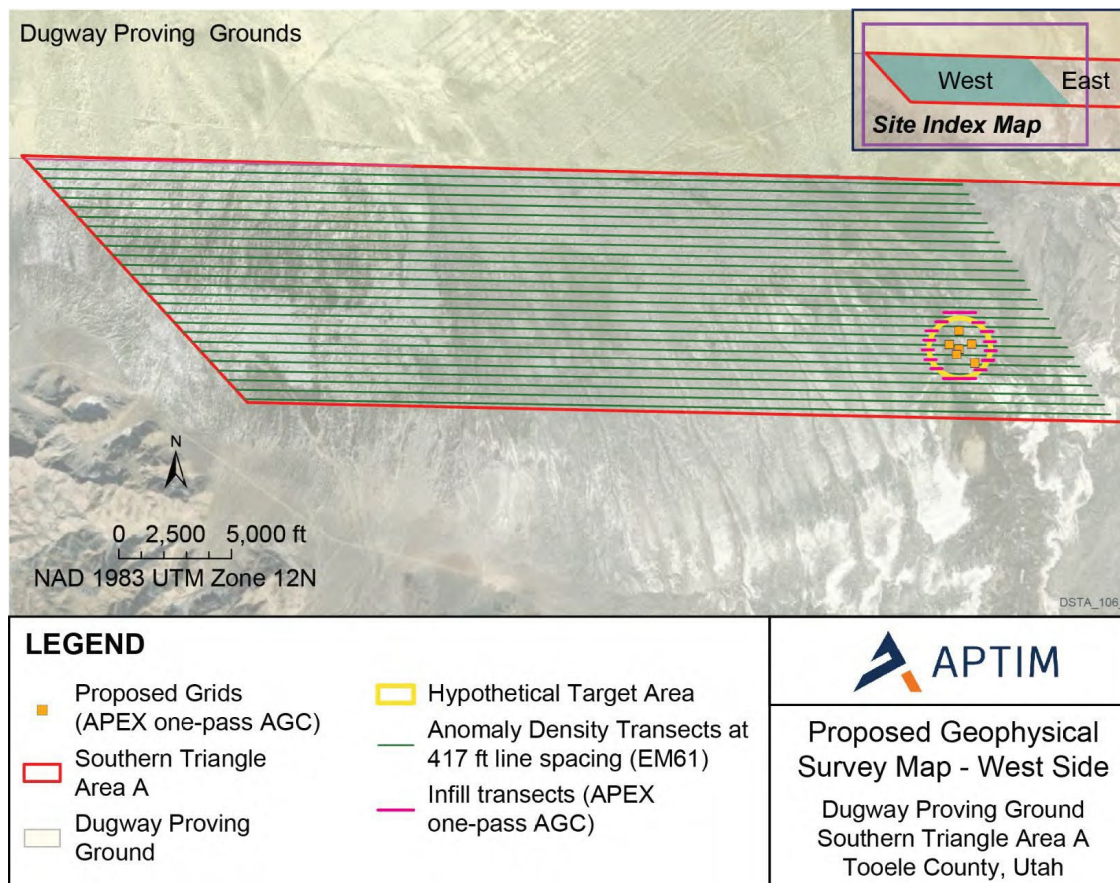
# GEOPHYSICAL INSTRUMENT SELECTION



Notes: <sup>i</sup> USACE Detection Depth Rule is calculated by multiplying 11x the munition diameter. <sup>ii</sup> APEX maximum detection depth represents the most favorable orientation; source: WRT. <sup>iii</sup> Drone detection limit is based on 5:1 signal noise ratio.

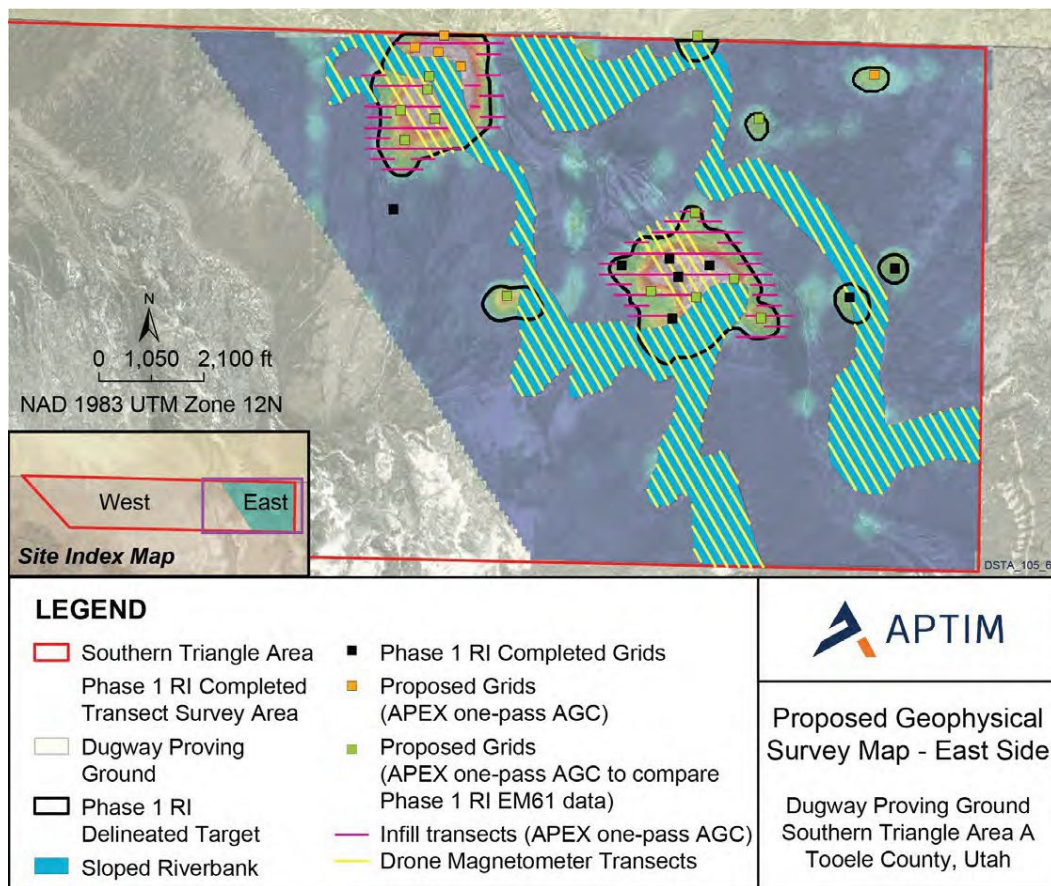


# GEOPHYSICAL MAPPING PLAN - WEST





# GEOPHYSICAL MAPPING PLAN – EAST





# UAV MAGNETOMETER AND APEX AGC







# INTRUSIVE FIELD WORK

Intrusive field work involves digging up anomalies with a 'MEC-like' signature from the geophysical mapping.

- Intact MEC items will be assessed for potential of CWM (weighed and x-rayed), then packaged and transported to the Interim Holding Facility.
- Explosively configured MEC will be detonated.

Intrusive field work will also include munition constituent (MC) soil sampling characterization.

- *Discrete Soil Samples*
  - Collected upon discovery of potentially leaking liquid filled munition, low-order MEC finds, and other evidence of releases (i.e. staining).
  - Analyzed for explosives and CA/agent breakdown products (ABP).
- *Composite Soil Samples*
  - Collected in areas of high anomaly density using incremental sampling methodology (ISM).
  - Sample area coinciding with the geophysics grids.
  - 30 increments per composite sample.



## PHASE II RI/FS APPROACH CONT'D

- Intrusive Field Work –intrusively investigate Targets of Interest (TOI) in AGC data
  - Currently estimate approximately 350 digs
  - Training and resources in place for potential MEC and CWM
  - Initial Assessment, Packaging, and Transportation – full-time team dedicated to the evaluation of MEC and CWM items
- Interim Holding Facility – specialized storage container used to safely and securely stage recovered munitions with unknown liquid





## CHEMICAL AGENT SAFETY

Performing intrusive activities at a potential CWM site requires specialized planning, training, and resources:

- Development of Chemical Siting Plan.
- Pre-Operational Surveys, Training and Exercises – field personnel undergo two weeks of training (personnel protection equipment, chemical agent release scenarios, rescue/extraction, mitigation, and decontamination. Requires Army review and approval before notice-to-proceed with intrusive field work.
- Personnel Decontamination System – Full-time team that is responsible for decontaminating potentially contaminated personnel and equipment.



## CHEMICAL AGENT SAFETY (CONT.)

- Medical Support –EMT and ambulance subcontractor trained in advanced life support and chemical casualty care is on-site full-time to provide emergency services and transport.
- Interim Holding Facility – includes specialized storage container and full-time security services when storing suspected CWM.
- Real-time air monitoring for chemical agent.



## PROJECT SCHEDULE OVERVIEW

- Currently in work planning phase
- April 2023: Mobilize to the field
- May – August 2023: Geophysical mapping
- October 2023: CWM training
- November – December 2023: Intrusive operations
- 2024: Reporting
- 2025 – 2026: Remedy Selection



## LATER TERM PROJECT TASKS (2024 – 2026)

- Remedial Investigation Report – presents the results of the investigation, nature and extent of contamination, MEC/CWM characterization, and revised Conceptual Site Model.
- Feasibility Study – includes the development of remedial action objectives and evaluation of remedial alternatives for MEC, CWM, and munition constituents based on all data generated to date. Also includes detailed cost estimates for each remedial alternative.
- Proposed Plan – summarizes the specifics of the preferred remedial alternative for public review and comment.
- Decision Document – summarizes the remedy selection and all major comments and Army responses on the proposed plan. The document also formalizes the remedy selection.





# QUESTIONS

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