Utah National Guard
Restoration Advisory Board
Draft Meeting Minutes
November 6, 2014 – 7:00 PM

Members Present:	Organization:	E-Mail:
Dave Allison	Utah Department of Environmental Quality (Alternate)	dallison@utah.gov
Richard Brown	Hi-Country Estates II Community	rbrown@campwilliamsrab.org
Walter Gee	National Guard Bureau	wgee@campwilliamsrab.org
Jory Howell	Herriman City - Alternate	jhowell@herriman.org
Alan Paxton	Herriman Community	apaxton@campwilliamsrab.org
Robert Price	Utah National Guard	rprice@campwilliamsrab.org
Michael Storck	Utah Department of Environmental Quality	mstorck@campwilliamsrab.org
John Waldrip	Utah Department of Environmental Quality	jwaldrip@campwilliamsrab.org
Tom Williams	Hi-Country Estates II HOA	twilliams@campwilliamsrab.org

Members Absent:	Organization:	E-Mail:
Boyd Dansie	Unincorporated Salt Lake County	bdansie@campwilliamsrab.org
LTC Steven Fairbourn	Utah National Guard Public Affairs	steven.a.fairbourn.mil@mail.mil
Marlon Jones	Bluffdale Community	mjones@campwilliamsrab.org
Noell Nelson	Bluffdale City	nnelson@campwilliamsrab.org
Gaylord Scott	Salt Lake County	gscott@campwilliamsrab.org
Heather Upshaw	Herriman City	hupshaw@campwilliamsrab.org

Other Attendees:	Organization:	E-Mail:
Jeff Fitzmayer	Parsons	jeffrey.fitzmayer@parsons.com
Dave Harris	Concordia Communications	dharris@concordiacommunications.com
Monica Morales	Parsons	monica.morales@parsons.com
Melissa Porter	Concordia Communications	mporter@concordiacommunications.com

Agenda Item #1 Welcome
RAB installation co-chair, Robert Price, opened the meeting, thanked everyone for their attendance, and welcomed all RAB members and community members. Meeting agenda is attached (**Attachment 1**).

Agenda Item #2 RAB Business
Mr. Price turned the time over to Mr. Dave Harris for RAB business.

Discussion of New Community Co-Chair
Mr. Dave Harris explained a community co-chair should be appointed. He invited RAB members to let him know if they are interested in applying for the community co-chair position.

Agenda Item #3 Project Update (Attachment 2)

Mr. Price outlined the agenda for his presentation on slide 2. He pointed out a map on slide 3, which shows the 1914 Camp Williams installation boundary. The 1914 map includes formerly owned defense lands that are no longer part of the current Camp Williams installation. Mr. Price pointed out a map on slide 4 showing land included in the 1990 Camp Williams Land Exchange Act. He explained the Munitions Response Sites (MRS), including the Artillery Impact Area Buffer Zone (AIABZ) and Wood Hollow Training Area, are a result of this land exchange.

Mr. Price pointed out a map on slide 5, which shows site conditions for the AIABZ, prior to the 2014 season fieldwork. He pointed out Munitions and Explosives of Concern (MEC) and Munitions Debris (MD) items that were found previously at the AIABZ. Mr. Price explained transect surveys were completed previously as well as a 100-percent surface clearance in the burn area outlined by the black boundary.

Slide 6 outlines the fieldwork completed at the AIABZ in 2014. Mr. Price said that 100 percent of the Right of Entry agreements were obtained and 100 percent of the acreage within the MRS boundary was investigated. Mr. Price explained no vegetation removal was required because the fieldwork was completed before the vegetation leafed out. He said the Utah National Guard (UTNG) installed a fence line along the installation boundary and is planning to place signage along the fence line to inform the public of the potential ordnance hazard that exists.

Mr. Tom Williams said the homeowners from Hi-Country Estates II are extremely pleased with the project. He said that it was a very positive experience for the homeowners. Mr. Williams said at the onset of the project, many homeowners were hesitant to participate, but the homeowners are very appreciative with how the project was handled.

Mr. Richard Brown asked what kind of fence was installed near the AIABZ site boundary. Mr. Price explained that a three-strand barbwire fence was installed to allow wildlife to pass over. Mr. Brown asked if the fence and signage will deter people from entering the Camp Williams installation. Mr. Price said the fence and signage may not deter people from entering the installation, but the UTNG hopes the fence will help establish the installation boundary, which hasn't been well marked in the past. The signage will address the public safety issue of people unknowingly wandering onto the installation and encountering munitions. Mr. Brown said that he is glad the fence has been installed because the installation boundary was not well marked before. Mr. Price said the UTNG is also glad to have the fence installed.

Mr. Price pointed out slide 7, which outlines the remaining work to be completed for the AIABZ. He said that Parsons will complete a Remedial Action Report in the upcoming months. Mr. Williams asked when High Country Estates II homeowners could expect to receive a result summary letter. Mr. Price said that homeowner letters won't be sent until the Remedial Action Report has been accepted by the UTNG and the Utah Department of Environmental Quality (UDEQ). Mr. Price explained homeowners could expect the letters in approximately six months.

Mr. Price pointed out a paragraph on slide 7, which outlines the educational awareness program that will be implemented. Mr. Williams said that the UTNG could address the topic of educational awareness at the High Country Estates II annual meeting next June. He said the meeting is usually held the first Saturday in June at 1:00

p.m. at Butterfield Elementary School. Mr. Price said the UTNG would be happy to bring educational materials to present at the meeting.

Mr. Price pointed out a map on slide 8 and outlined the previous work that has been completed at the Wood Hollow Training Area MRS. He explained the primary munitions of concern for this site are 75mm and 37mm artillery rounds. Mr. Price outlined the Wood Hollow Training Area project status on slide 9. He said the Digital Geophysical Mapping (DGM) equipment Parsons planned to use at this site was changed. He said the EM-61 DGM instrument had a difficult time differentiating between the magnetic rocks and the metallic objects at the site. Mr. Price said Parsons developed a new instrument and software that provided better results.

Mr. Price said the MEC and MD distribution at the Wood Hollow Training Area is more extensive and dense than anticipated. He explained that MEC and MD have been found along the current site boundary and Staker-Parsons mine personnel have found 75mm casings on parcels well beyond the current site boundary. Mr. Price said this means the site is not fully characterized and the site boundary will be expanded.

Mr. Brown asked why casings are present at the Wood Hollow Training Area. Mr. Price explained that the casings are from 75mm shrapnel rounds. He said that even when the round functions properly, a casing is left behind. Mr. Jeff Fitzmayer explained that the casing is not a cartridge casing you would associate with a fixed artillery shell, it is a left-over hollow casing associated with the old-style shrapnel rounds. Mr. Price explained that the casings aren't normally found on the surface, so it is difficult to know the full extent of the MEC and MD present at the site without expanding the site boundary.

Mr. Price pointed out a map on slide 10, which shows the live rounds that have been found to date at the Wood Hollow Training Area. He pointed out a map on slide 11 outlining a future development plan Herriman City has designed. Mr. Price explained the UTNG plans to survey all of this area because of the planned development.

Mr. Price pointed out a map on slide 12, which shows the previous site boundary, as well as future areas that will be investigated. He said a full set of transects (shown in black) will be surveyed directly outside of the current MRS boundary. Mr. Price explained that sparse transects (shown in yellow) will be surveyed further from the MRS boundary, and will concentrate on hilltops and ridgelines, and areas where MEC or MD are more likely to be present.

Agenda Item #4 Remedial Action Field Work Report, Artillery Impact Area Buffer Zone (Attachment 3)

Mr. Jeff Fitzmayer outlined the agenda for his presentation on slide 2. He pointed out a map of the AIABZ MRS on slide 3 and showed three areas that were cleared during the 2011 Time-Critical Removal Action. He explained that the Remedial Action fieldwork focused on the remaining areas of the site that were not cleared previously. Mr. Fitzmayer said that large caliber munitions were present at this site, mainly 155mm and 8-inch artillery shells. The terrain and geology of this site prevented the large caliber artillery shells from penetrating the surface. For this reason, Mr. Fitzmayer said the Remedial Action fieldwork only involved a surface clearance.

Mr. Fitzmayer pointed out a map on slide 4 and explained they used a grid system to ensure 100 percent of the site was investigated during the surface clearance. He explained the grid system helps maintain quality control. The site was mapped out in 100-foot by 100-foot grids by licensed surveyors.

Mr. Fitzmayer explained that brush removal was not required during the Remedial Action fieldwork. He outlined the process for the surface clearance on slide 6 and explained that each 100-foot by 100-foot grid was visually inspected by Unexploded Ordnance (UXO) teams using handheld metal detectors. Mr. Fitzmayer showed RAB members an example of the Schonstedt metal detector that was used.

Mr. Fitzmayer said the UXO team members met together for a training day before the fieldwork began (pictures shown on slide 7). Slide 8 shows pictures of the terrain and thick brush cover present at the AIABZ, which had not yet leafed out. Mr. Fitzmayer pointed out pictures on slide 9 showing the steep, rocky terrain present at the AIABZ and explained that the UXO teams encountered some inclement weather during the fieldwork.

The quality control process is outlined on slide 10. Mr. Fitzmayer explained that a UXO quality control specialist oversaw project activities, and conducted audits and inspections of the fieldwork to ensure all activities were in compliance with the approved work plans and procedures. He said that a government quality assurance representative also performed quality control checks during the fieldwork. Mr. Fitzmayer explained that 25 seed items were placed on the ground throughout the site as part of the quality control process and to ensure full-coverage of the site. Seed items are non-explosive metal objects placed in known locations by quality control teams, their purpose being to ensure UXO teams are thoroughly investigating the site. If any seed objects are missed in the clearance, the entire grid must be redone.

Mr. Fitzmayer pointed out slide 11 and outlined the quality assurance procedures conducted by the government representative. He said 29 additional seed items were placed at the site to be recovered by the UXO teams. The government representative also inspected ten percent of the grids to ensure quality control.

The results of the fieldwork are outlined on slide 12. Mr. Fitzmayer said eight MEC items had been found at this site previously, but no live MEC items were found during the Remedial Action fieldwork. Mr. Fitzmayer pointed out a map of the western side of the site on slide 13 and explained that illumination rounds and fragments were found, but no live MEC items were found. Slide 14 shows a map of the eastern side of the site. Mr. Fitzmayer explained illumination candles and fragments were also discovered on the eastern side of the site, but no live MEC items were found.

Mr. Fitzmayer summarized the work completed on slide 15. He said 100 percent of the ground surface was cleared (approximately 625 acres) during the fieldwork. No MEC items were found and a total of 153.7 pounds of MD was found and removed from the site. Mr. Fitzmayer said the work at this site went very well and was finished ahead of schedule.

Mr. Fitzmayer outlined the future actions for this site on slide 15. Mr. Williams asked how long it will take UDEQ to approve the Site Specific Final Report. Mr. John Waldrip explained once they receive the report, they will have it reviewed within 30 days. He said that UDEQ has been involved with the fieldwork throughout the process so he feels they have a sound understanding of what was found. Mr. Fitzmayer said the UDEQ regulators made almost weekly visits to the site during the fieldwork, and provided additional oversight on the project.

Agenda Item #5 Remedial Action Field Work Report, Wood Hollow (Attachment 5)

Mr. Fitzmayer outlined the agenda for his presentation on slide 2. He explained the Wood Hollow Training Area has smaller munitions, which penetrated into the subsurface. For this reason, a surface and subsurface clearance was conducted at this site.

Mr. Fitzmayer said the munitions used at this site were 75mm shrapnel rounds and 37mm rounds. He explained the 37mm rounds are very small and difficult to detect, but still pose an explosive hazard. Mr. Fitzmayer pointed out a map outlining the fieldwork activities at the Wood Hollow Training Area on slide 3. He said a portion of the site was cleared during the 2011 Time-Critical Removal Action. Mr. Fitzmayer pointed out a map on slide 4 and explained they also used a 100-foot-by100-foot grid system at this site to ensure 100 percent coverage of the site.

Mr. Fitzmayer explained brush removal was required at this site because the Digital Geophysical Mapping (DGM) equipment needs to be held six inches above the ground surface. Brush was cut to leave six inches of the main stem. Mr. Fitzmayer said this was done to allow the brush to grow back more quickly and to ensure the DGM equipment was six inches above the ground surface.

Mr. Fitzmayer pointed out slide 6 and explained they had planned to use the EM61 DGM instrument during the Remedial Action fieldwork. He said the EM61 is an industry-standard instrument that has been found to be very effective at sites with volcanic rock that can cause electromagnetic interference with DGM instruments. Mr. Fitzmayer explained the terrain at the Wood Hollow Training Area is very steep and rocky, which caused a safety concern because the EM-61 would be difficult to use in this type of terrain. He said they decided to change the DGM equipment to an F3 electromagnetic sensor. The F3 electromagnetic sensor had to be slightly modified to enable it to record the digital mapping data. He explained the F3 DGM instrument was more suitable to the rough terrain, but it also functioned better with the geologic interference present from volcanic rocks at the site.

Mr. Fitzmayer explained that because the F3 DGM was a new instrument, the Army Corps of Engineers, who provided oversight on the project, requested that Parsons test the F3 and EM61 DGM instruments against each other. Slide 7 shows anomaly maps generated from both instruments. Mr. Fitzmayer explained that the F3 DGM instrument had less geologic interference than the EM61 and provided clear identification of the subsurface anomalies.

Mr. Fitzmayer outlined the DGM mapping process on slide 8. He said the site was surveyed in 100-foot-by100-foot grids with two-foot spacing between transects. The DGM operator was led by a UXO escort to ensure safety and quality control. Mr. Fitzmayer said the data collected was downloaded at the end of the day and processed by geophysicists. Mr. Williams asked how many grids were surveyed in a day. Mr. Fitzmayer said the goal was for each team to survey four grids a day, but that usually didn't happen.

Mr. Fitzmayer explained that this site also used a blind seeding operation to ensure quality control. He said they did a Geophysical Prove Out, which means they buried fake munitions items in the ground and then used the E3 DGM instrument to find the buried items. Mr. Fitzmayer explained the Geophysical Prove Out was done to ensure the accuracy of the DGM instrument. Mr. Fitzmayer said that over the course of the project they noticed the E3 DGM instrument was missing some of the seed items, approximately 13 percent. He explained that wasn't accurate enough, so they changed the way the data was processed with the computer algorithms, and the missing seeds showed up. Mr. Fitzmayer said they are still reprocessing some of the DGM data.

Mr. Fitzmayer pointed out a map on slide 10, which shows the anomaly density per acre. The red, orange, and yellow squares represent high-density areas. He pointed out high-density areas along the MRS boundary. Mr. Fitzmayer explained the anomalies are intrusively investigated, or dug up to see if they are MEC or MD items. He explained a lot of the anomalies have been MD and civilian debris. Mr. Price said that they don't know what the anomalies are until they are dug up.

Mr. Fitzmayer pointed out pictures and outlined information about the intrusive investigation on slide 11. He said that each team would take a dig sheet to the grids they were intrusively investigating and would dig up the anomalies found previously by the DGM equipment. Mr. Fitzmayer explained that analog detection surveys, or "mag and dig" surveys, were performed in areas where terrain conditions were hazardous for DGM crews. He said they used the F3 DGM instrument to do the final check of the area where the anomaly was dug up. Mr. Ed Staes asked how many digs were completed each day. Mr. Fitzmayer said that each dig team averaged about 150 digs a day.

Mr. Fitzmayer outlined the quality control and quality assurance processes for the site on slide 13. Slide 14 shows a map summarizing the work completed. Mr. Fitzmayer explained the completed grids are colored peach, and the gray grids inside the site boundary will not be cleared because the mining operation already completed excavations in those areas. Mr. Fitzmayer summarized the types of MEC and quantity found on slide 15.

Mr. Fitzmayer pointed out a map on slide 16, which shows a summary of the MEC and MD items that were found during the fieldwork. Mr. Fitzmayer explained that a lot of MD items were found on the edge of the site boundary. He said this is important because the presence of MD can indicate a potential for MEC to be present.

Mr. Fitzmayer outlined the types and quantity of MD found on slide 17. He pointed out a graph on slide 18 and explained that 95 percent of the MEC and MD found have been within four inches of the ground surface. Mr. Fitzmayer outlined the future plan for the project on slide 19. He explained the DGM data previously collected is being reprocessed. He said the downside of reprocessing the data is that it increases the anomaly count approximately three to five times, which means more places to investigate.

Mr. Fitzmayer explained that when the Time-Critical Removal Action was completed in 2011, the EM61 DGM instrument was used, and they only investigated to a depth of 12 inches. For these reasons, the area investigated during the Time-Critical Removal Action will be resurveyed using the F3 DGM instrument to a depth of 24 inches.

Mr. Fitzmayer pointed out a map on slide 20 and explained they will be reprocessing all of the data, and will survey some small areas that were not previously included in the MRS boundary (shown in pink). Mr. Fitzmayer pointed out an area where step-out investigations (shown in black) will be performed to get a statistical sampling of the area outside of the MRS boundary. He said following the step-out investigations they will investigate the far outlying areas (shown in red).

Mr. Fitzmayer pointed out a map on slide 21, showing a close-up of the area where step-out investigations will be performed. Slide 22 shows a map of the far outlying areas that will be investigated. Mr. Fitzmayer explained the phase-one investigation will focus on the ridge tops and hilltops and in the center of gullies. He said if evidence of

MEC or MD is found in the far outlying areas, they will commence the phase-two investigations with more narrowly spaced transects. Mr. Fitzmayer explained the reason the far outlying areas are blocked off, rather than being one large investigation area, is so they can eliminate a block if nothing is found in that block.

Mr. Waldrip asked what the spacing distance between transects will be. Mr. Fitzmayer explained that during the phase one investigations they will focus transects on the ridge tops using USGS topographical map data. Mr. Price said that the phase one transects will be approximately 200 feet apart. Mr. Fitzmayer said the phase two transects will be approximately 100 feet apart. Mr. Fitzmayer explained that during the phase-one and phase-two investigations of the far outlying areas they will not be trying to find all of the MEC and MD items, they will only be categorizing the area to determine if further investigation is warranted.

Mr. Waldrip asked if the Staker-Parsons mining company owns all of the parcels included in the far outlying investigation areas. Mr. Price said that there are four additional landowners that will be coordinated with. Mr. Fitzmayer outlined the future project plan on slide 23 and the upcoming schedule on slide 24.

Mr. Waldrip asked if they have an idea of the approximate number of impacts there were at this site. Mr. Fitzmayer said they have removed close to one ton of MD from the site, they have found 50 exploded rounds, and approximately 90 casings to date. He said in terms of an impact area, this site would be considered a low-density area.

Agenda Item #6 Public Comment Opportunity

Mr. Price asked if there were any additional questions or comments from the audience. No one responded.

Agenda Item #7 Discussion of Agenda Items and Date for Next Meeting

Mr. Price asked RAB members when they would like to meet again. RAB members indicated they would like to meet when the remaining fieldwork is complete. Mr. Price said they would tentatively plan the next RAB meeting in the fall of next year (2015). Mr. Fitzmayer suggested a newsletter or fact sheet be prepared for distribution between now and the next meeting.

Agenda Item #8 Adjourn

The meeting was adjourned at 8:30 p.m.

Attachments:

1. Meeting Agenda
2. Presentation Slides – Project Update
3. Presentation Slides – Remedial Action Field Work Report, Artillery Impact Area Buffer Zone
4. Presentation Slides – Remedial Action Field Work Report, Wood Hollow