

These minutes were approved as written May 4, 2011

# Utah National Guard

## Restoration Advisory Board

### Meeting Minutes

Feb. 2, 2011

<b>Members Present:</b>	<b>Organization:</b>	<b>E-Mail:</b>
Ted Asch	U.S. Geologic Survey	tasch@usgs.gov
Dave Bennett	Utah County	dbennett@campwilliamsrab.org
Kim Harriz	Army National Guard Directorate	kim.harriz@us.army.mil
Jerry Iacopini	Army Corp of Engineers	jerry.c.iacopini@usace.army.mil
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Rik Ombach	Utah Department of Environmental Quality	rombach@campwilliamsrab.org
Patrick Osmond	Herriman Community	posmond@campwilliamsrab.org
Robert Price	Utah National Guard	rprice@campwilliamsrab.org
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Heather Upshaw	Herriman City	hupshaw@campwilliamsrab.org
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<b>Other Attendees:</b>	<b>Organization:</b>	<b>E-Mail:</b>
Rebecca Briesmaster	Concordia Communications	rebeccab@concordiacommunications.com
Jeff Fitzmayer	Parsons	jeffrey.fitzmayer@parsons.com
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Ed Staes	Parsons	ed.staes@parsons.com

## **Handouts Distributed at Meeting:**

Handouts:

*Site map*

### **Agenda Item #1. Welcome**

Restoration Advisory Board (RAB) installation co-chair, Robert Price, opened the meeting, thanked everyone for their attendance, and welcomed all RAB members. He introduced Ted Asch from the U.S. Geologic Survey as well as Jerry Iacopini from the Army Corp of Engineers. Mr. Asch and Mr. Iacopini both work closely with the Utah National Guard (UTNG) on the Military Munitions Response Program (MMRP). He then turned the meeting over to Michele Straube, the RAB facilitator. Meeting agenda is attached (**Attachment 1**).

### **Agenda Item #2. RAB Business**

Ms. Straube briefly went through the packet distributed at the meeting. She explained that approval of the November 2010 meeting minutes took place electronically. The minutes were approved and have been posted on the Web site, [www.campwilliamsrab.org](http://www.campwilliamsrab.org) for public viewing.

### **Action Items**

Ms. Straube noted that the current action item list was included in the packet (**Attachment 2**). She said all but one of the action items are complete. The open action item should be completed soon, as Mr. Price is awaiting signatures before making the Installation Action Plan available to the RAB.

### **Training**

Ms. Straube explained the artillery demonstration has been postponed until spring and a discussion about the date and time will take place at the May 2011 RAB meeting.

### **RAB Member Attendance**

Ms. Straube explained that John Roberts, the Bluffdale community RAB representative, has not attended any RAB meetings. Multiple attempts to contact Mr. Roberts by phone, email and regular mail have not been successful. A RAB member may be removed from the RAB if they fail to attend two meetings in a calendar year. Ms. Straube asked RAB members if they would like to vote to remove Mr. Roberts as the community representative for Bluffdale or impose other sanctions. RAB members voted unanimously to remove Mr. Roberts from the RAB. Solicitation for a new Bluffdale community representative will take place and the RAB will act as the selection panel once applications are received.

### **Meeting Day and Time**

Ms. Straube explained that an email survey found that Wednesday evenings are still the most convenient day for RAB meetings to be held. She asked if the starting time of 6:30 p.m. was also convenient for RAB members. Patrick Osmond suggested that the meetings start at 6:00 p.m. RAB members present agreed that 6:00 would be more convenient for them. The May 2011 RAB meeting will be held on a Wednesday evening at 6:00 p.m.

### **RAB Support Intern**

Dave Harris introduced Rebecca Briesmaster who is completing an internship for Weber State University. Ms. Briesmaster will be working with Concordia Communications and supporting the RAB until mid-April.

### **Agenda Item #3 Project Update (Attachment 3)**

Mr. Price explained that two of the Munitions Response Sites (MRS) have been recommended for boundary changes. The map on slide 3 shows the two boundaries that are proposed for revision. He then provided an update on each of the MRSs. Field work at the Southeast Simulated Attack Area MRS, located along the Jordan River near the city of Lehi, was completed in June. Limited munitions debris consisting exclusively of expended blank small arms ammunition was found at this site. The report is being finalized and should be ready for the RAB to review sometime in February.

Slide 6, shows the Rose Canyon Training Area and Artillery Impact Area Buffer Zone MRSs. Mr. Price explained that civilian debris, Munitions Debris (MD), and Munitions and Explosives of Concern (MEC) were found at these two sites. Mr. Osmond asked if people living near the Rose Canyon Training Area MRS were displaced during the field work. Mr. Price explained that some people were displaced during intrusive investigations. He pointed to the map on slide 6 and showed the area where intrusive investigations took place. Most residents were only displaced for a few hours because the field work went faster than anticipated and nothing was found in these particular areas.

Mr. Price explained that slide 8 shows the Southwest Area MRS, which underwent a Site Inspection (SI) last spring and recently completed a Remedial Investigation (RI). The field work for the RI was completed during the fall (2010). He said they didn't expect to find MEC at this site during the RI. Multiple pieces of MD were found in the plowed field at this site, and these turned out to be artillery fragments. Mr. Price explained that the Modified Record Firing Range (a rifle range), located on Camp Williams and just north of the MRS, was the same area where some artillery shells had landed off target and detonated some time ago. They believe the MD is present from the rounds that landed in this area. The Remedial Investigation report is being drafted and it has been recommended that No Further Action (NFA) take place at this site.

Mr. Price pointed out a map on slide 10 that shows the results of field work completed at the Wood Hollow Training Area MRS in November 2010. A large portion of this area has been part of a mining operation that was recently taken over by Staker-Parson Companies. This mining site is supporting the Utah Department of Transportation Mountain View Corridor project as well as the National Security Agency (NSA) data center project taking place at Camp Williams. Mr. Price explained some of the land-use changes that will take place at this site in the future. A road will be built during the summer of 2011 that will run through some of the Wood Hollow Training Area MRS. The UTNG is planning to provide construction support when that road is built. Mr. Price explained the next steps for this site will be to revise the MRS boundary and to finalize the Remedial Investigation report.

Mr. Price explained that Jeff Fitzmayer would provide a more detailed presentation about the Southeast Area MRS. The field work for this site was completed in November 2010 and a Remedial Investigation report is currently being written.

Mr. Price pointed to Slide 13 to show the proposed response area for a Time-Critical Removal Action near the Rose Canyon Training Area MRS and Artillery Impact Area Buffer Zone MRS. The proposed removal action will be done in two areas that lie within the revised MRS boundary. These two areas were burned by the Machine Gun wildfire that impacted this site last summer. The UTNG plans to conduct a surface sweep of this area to take advantage of the fact that much of the brush, which can obscure old munitions, was removed by the wildfire. Mr. Price pointed out slide 14 and showed a parcel of land they would like to include in the surface sweep, where

right-of-entry was not received. The UTNG would like to sweep 100 percent of the area impacted by the fire. Mr. Price explained that they will try to obtain right-of-entry to that parcel.

Kim Harriz took over the presentation and explained that she would provide RAB members with an overview of the various components that go into a Remedial Investigation report. Remedial Investigation reports for all six of the MRSs will be complete by June. She directed the audience's attention to slide 15, which outlines the different information that will be included in the reports. The data obtained from the field work will be used to show the nature and extent of MEC and munitions constituents (MC) contamination at each site, and to assess the risks related to MEC and MC at each site.

The assessment of risk has two main parts, the MEC Hazard Assessment (MEC HA) which addresses the explosive risks for humans, and the risk posed by MC contamination to human health and the environment. Ms. Harriz explained that the MEC Hazard Assessment applies only to the human population and does not address explosive risks to wildlife, plants, or the environment. She said that the risk assessment related to MC contamination would evaluate the risks to both humans and the environment, including wildlife.

Ms. Harriz explained that each of the six MMRP sites at Camp Williams will be categorized into one of four MEC HA categories based on the site score, and that each category represents a different level of risk related to explosives, with Category One being the highest risk, and Category Four the lowest. Slide 17 shows the different input factors used in the MEC HA. Ms. Harriz provided examples of the MEC HA input factors and explained how they would be scored. The MEC HA is used as a tool when looking at cleanup alternatives for a site. Different cleanup alternatives can reduce the overall risk score for a site. The goal of the cleanup alternative is to lower the site score to a category four, which is considered an acceptable risk.

Ms. Harriz explained that risks related to MC soil contamination are evaluated differently, and the assessment addresses the risks that chemical contaminants pose to both human and ecological (wildlife and plant) receptors. She explained that this type of risk assessment, known as a Baseline Risk Assessment, is very complex and that she would only be giving a brief summary of the process. MC risk is calculated by multiplying the level of exposure to MC contaminants by the hazard level of those contaminants. There are two results that come from Baseline Risk Assessments: cancer and non-cancer risks. Ms. Harriz explained the acceptable levels of excess risk, based on regulatory standards, found on slide 19. She said that cancer risks of less than one in a million are considered negligible. Cancer risks are considered acceptable if they are less than one in 10,000. Non-cancer risks are considered acceptable with a hazard quotient less than 1.0.

Rik Ombach from the Utah Department of Environmental Quality (UDEQ) commented that from the State of Utah's perspective, a cancer risk of one in 10,000 is not necessarily acceptable. Ms. Harriz said that a risk level between one in 10,000 and one in 100,000 is considered a gray area in Risk Assessment. Mr. Ombach explained a risk of that level would need to be negotiated with the state, may require some mitigation, and would require public comment before it could be considered acceptable. He said that slides 19 and 20 are showing the Risk Assessment in a very simple way, but that the Risk Assessment process is very complex. Ms. Harriz agreed and explained that the excess risks are based upon conservative estimates.

Slide 20, outlines the four step process involved in a Risk Assessment. Ms. Harriz then pointed out slide 21, which outlines a conceptual site model. Conceptual site models are created in the beginning stages of an environmental investigation to assist with work plans, but are later used as a basis for Risk Assessments. She

explained that the conceptual site model looks at all the potential contaminants and ways they can be transferred to human and ecological receptors. Surface soil is the most common exposure route in MMRP investigations.

#### **Agenda Item #4 Southeast Area MRS Update (Attachment 4)**

Jeff Fitzmayer explained that the Southeast Area MRS is a small, 20-acre parcel of land that was previously owned by the UTNG but has since been transferred and is now administered by the Bureau of Land Management. The Southeast Area MRS was added to the MMRP at a later time because the historic military use was unknown until a report, called the After Action Report, was discovered and linked this site to potential military training. Mr. Fitzmayer explained that a major utility corridor consisting of underground gas lines and overhead power lines runs through this site and has caused some complications with the field work.

Mr. Fitzmayer provided a history of the Southeast Area MRSs and its involvement in the MMRP on slide 6. The Southeast Area MRS underwent a SI during spring 2010, and was recommended for additional investigation with a Remedial Investigation (RI). After it was determined that the Southeast Area MRS warranted further investigation, there were several questions that needed to be answered by the RI. He outlined those questions on slide 7. This site posed several challenges during the field work. There is a large amount of civilian debris that caused interference with the digital geophysical mapping (DGM) equipment and created false positives with the data. The utilities at the site also presented a problem because they caused electromagnetic interference with the DGM equipment and rendered it inoperable in the utility corridor area.

Mr. Fitzmayer pointed out slide 8 and explained that the area impacted by the utility corridor had to be investigated with a different method known as “Mag and Dig.” During a “Mag and Dig” survey crews use a hand-held magnetometer and dig up any anomalies that are detected. This method is not traditionally used in MMRP investigations because the preferred method is to use DGM and get a digital record of the geophysical data collected. However, in cases where DGM is not possible, the “Mag and Dig” method represents a viable alternative and was the only way to investigate the utility corridor area.

Slide 9 describes in text the remedial investigation approach for the site, and slide 10 shows some photographs of the RI field work. MD, range-related debris (RRD), and civilian debris were found during the field work. Mr. Fitzmayer explained that all of the RRD and MD items found were consistent with the Southeast Area MRS having been used as an artillery firing point. These items included grommets that are used to protect the rotating bands on artillery shells during transport. Mr. Fitzmayer explained that the grommets are removed from the artillery shell just before it is fired. Additional RRD items included pieces of communication wire or “commo” wire, shipping lugs that fit in the nose of the artillery shell during transport, empty fuse containers, and expended M82 primers. Mr. Fitzmayer explained that the M82 primer contains a small black powder charge that is used to initiate the firing of the artillery shell, and that an expended primer is considered MD. He pointed out that the primer is much more akin to small arms ammunition than it is to an explosive munition.

The map on slide 11 shows nine suspected firing points found during the RI field work. Mr. Fitzmayer explained that each of these firing point areas received 100 percent “Mag and Dig” survey coverage over a 20-meter by 20-meter grid. The remainder of the Southeast Area MRS had 40 feet of spacing between investigation transect lines. Mr. Fitzmayer explained that DGM was performed using transects across the entire site, but as expected, the DGM data from the utility corridor area was useless due to interference from the utility lines and “Mag and Dig” was used instead. He also explained that qualitative reconnaissance surveys found additional firing points beyond the northern MRS boundary, so this area also received a “Mag and Dig” survey. The east side of the Southeast Area MRS has a large debris area that was investigated with a documented visual survey. During the documented

visual survey, the large debris area was divided into 10-meter by 10-meter grids and photographs of each grid were taken with a GPS camera and notes to document the observations made in each grid. Mr. Fitzmayer stated that only a couple of strands of “commo” wire were found in the vicinity of the large debris area and no other MD or RRD was observed.

Mr. Fitzmayer explained that four general characteristics were used to identify suspected firing points in the field. These were the presence of cheat grass, disturbed soil, the presence of “commo” wire, and metal detector “hits” that resulted in finding RRD or MD.

Mr. Fitzmayer pointed out a graphic on slide 14 and explained that during field artillery training exercises, it was common to set artillery batteries guns up in “gun lines” of six to eight guns with a fire direction center located anywhere from a few hundred yards to half a mile behind the gun line. He explained that communication wire ran between each gun and from each gun back to a fire direction center. Slide 15 shows the suspected firing points at the Southeast Area MRS and the areas where communication wire was found. Mr. Fitzmayer explained that the findings are consistent with the idea that a “gun line” was set up at this site, with the guns aiming to the northwest toward the Camp Williams Impact Area, about five miles away. Mr. Fitzmayer directed the audience’s attention to slide 16, which shows that the items found at the site during the investigation are consistent with items that are discarded when soldiers are preparing and firing an artillery shell.

Mr. Fitzmayer explained that most of the RRD and MD items found were shallowly buried in either linear-shaped trench features, or in more compact holes that appeared to have been dug and then covered over. Mr. Fitzmayer stated that the trenches, holes, and disturbed ground present at this site likely resulted from recoil spades found on the back of artillery guns. The recoil spades are dug into the ground when the gun is set up and help keep the gun in place while firing. This firing can result in a larger hole or trench being dug as the weapon recoils during firing. Mr. Fitzmayer explained that at the time the Southeast Area MRS was used, it was not uncommon for soldiers to dispose of the trash created during the training exercise in the trenches created by the recoil spades. Mr. Fitzmayer showed a video of an 8-inch self-propelled howitzer using its recoil spade.

Mr. Fitzmayer explained some beer cans were found in a trench with other buried RRD. Based on how the cans were constructed, it is believed that the cans were manufactured sometime between 1965 and 1971. This information, coupled with a late 1950s date attributed to a fuse container found during the SI, has allowed the UTNG to estimate that the Southeast Area MRS was likely used between the late 1950s and early 1970s. Mr. Fitzmayer explained the conclusions that have been made for this site as outlined on slide 20.

### **Agenda Item #5 Break/Breakouts**

RAB members were able to break into small groups to ask questions about the status of the MMRP investigation as well as the MRS boundary changes.

### **Agenda Item # 6 MRS Boundary Update (Attachment 5)**

Mr. Ed Staes explained how the Remedial Investigation field data collection and analysis process works. Software called Visual Sample Plan (VSP) is used to develop anomaly maps from data collected in the field. VSP software was originally developed by federal agencies for use with soil sampling but it has been revised for use with MMRP projects. Mr. Staes explained the basic concepts of contour mapping and summarized that the VSP software uses the MEC and MD items as data points to make color shaded contour maps that illustrate the MEC and MD density per acre. He explained that the revised MRS boundaries would be based on this contouring of MEC and MD density.

Mr. Staes pointed out slide 7 and explained that most of the MEC and MD was found near the southern boundary of the Rose Canyon Training Area MRS and within the Artillery Impact Area Buffer Zone MRS. A single MEC item was discovered farther north in the Rose Canyon MRS, but based on extensive investigation of this area, with no additional MEC or MD found, the UTNG believes that this MEC item is an isolated anomaly. The area of concern for the Rose Canyon Training Area MRS and the Artillery Impact Area Buffer Zone MRS was created using the VSP software, which focuses on the cluster of MEC and MD items that were found during the field work.

Mr. Staes explained that slide 8 shows a map with the preliminary revised MRS boundary for the Rose Canyon Training Area and Artillery Impact Area Buffer Zone. This area has been proposed to have Corrective Action completed. Mr. Staes explained that the preliminary MRS boundary was drawn to follow the 1.0 MEC/MD per acre contour line, and that this line is a good basis for the boundary because no anomalies were discovered outside of the 1.0 MEC/MD per acre contour line, and the line provides a wide buffer between the revised boundary and the next nearest piece of MD found during the RI.

Mr. Staes pointed out slide 9, which shows the current boundary for the Wood Hollow Training Area MRS. The site was originally comprised of about 80 acres of land, but the revised boundary now makes the site about 280 acres. Slide 10 shows the preliminary boundary for the Wood Hollow Training Area MRS. Mr. Staes explained areas that have been mined have been excluded from the boundary. There was a lot of data to support the preliminary revised boundary change because of the additional investigations that took place outside the original MRS boundary. The preliminary revised boundary will follow the 1.0 MEC/MD per acre contour line. He explained that when data was entered into the VSP software, MD was weighted the same as MEC. This ensures the preliminary revised boundaries are based on a conservative approach.

### **Agenda Item #7 Public Comment Opportunity**

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

### **Agenda Item #8 Adjourn**

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

### **Attachments:**

1. Meeting agenda
2. Action items
3. Presentation Slides – Project Update
4. Presentation Slides – Southeast Area MRS Update
5. Presentation Slides –MRS Boundary Update