UTAH NATIONAL GUARD

MUNITIONS REVIEW

News of the MMRP project at Camp Williams, Utah

June 2011

Residents receive MMRP update

Hi-Country Estates II residents received an update from the Utah National Guard (UTNG) at their monthly meeting on February 28, 2011 at the Herriman City Library. Robert Price, MMRP Technical Lead for the UTNG, provided residents with information about the Rose Canyon Training Area and Artillery Impact Area Buffer Zone munitions response sites.

These sites are located southwest of Herriman, near the northwestern side of Camp Williams and include portions of Rose Canyon and Yellow Fork Canyon. According to Price, the UTNG will be proposing a new boundary for these sites. "The new boundary combines the two sites and covers the area where the highest concentration of Munitions and Explosives of Concern (MEC) and Munitions Debris were discovered during the Remedial Investigation," said Price.

During the Remedial Investigations, some items such as 155 mm and 8-inch projectiles were discovered. The UTNG plans to begin the Remedial Action of the MEC at these sites this summer or fall.

Residents were concerned that they may need to be evacuated during the Remedial Action and asked how much notice they would be given. "During the Remedial Action, residents may be asked to evacuate their homes for a short period of time," said Price. "The Remedial Action phase will be different than the investigation and residents might only have 24 hours notice from the time they need to be evacuated."

To address resident concerns about the detonation process during the cleanup phase Mr. Price explained the precautions that will be taken in order to make the detonation process as safe as possible. He said, "The detonation process will depend on the size and location of the munition, but the UTNG will most likely use sandbags to contain the munitions in an igloo-like structure before detonating."

Price explained the UTNG is administering the Military Munitions Response Program (MMRP), a nationwide effort aimed at eliminating the risk old munitions may pose to human health and the environment. The MMRP has been in place at Camp Williams since October 2009, and since that time has made significant progress responding to the risk of old munitions at six sites near Camp Williams.

Bluffdale Community has new RAB representative

A recent vacancy on the Camp Williams Restoration Advisory Board (RAB) was filled by Mr. Marlon Jones, a 12-year resident of Bluffdale. Notice of the open Bluffdale community representative position was published on the project Web site, www.campwilliamsrab.org, and in the March edition of the Bluffdale Times, a monthly newsletter published by Bluffdale city. Bluffdale residents were able to submit an application for the vacant position online, or by mail. Two Bluffdale residents applied for the position. The existing RAB members reviewed the applications and selected Mr. Jones to serve as the Bluffdale community representative on the RAB.

The Camp Williams Restoration Advisory Board was formed in January 2010, to ensure that all stakeholders in the Utah National Guard's (UTNG) investigation have a voice and can actively participate in the Military Munitions Response Program (MMRP). The RAB is a group of citizen volunteers, city government, county government and other agency representatives who meet with the UTNG to discuss and monitor the MMRP underway at six sites located outside the Camp Williams Installation boundary.

A legacy of the past: artillery training at Camp Williams

Practice makes perfect is a saying that can apply to various activities ranging from sports to education, musical instruments to cooking, and the list goes on. This saying is also true for the U.S. military. A battle-ready military force is only created with practice and installations across the country have been used as training sites for decades to ensure soldiers are battle-ready.

Camp Williams is one such installation utilized by the Utah National Guard (UTNG) and other military organizations to ensure soldiers train in conditions and with equipment that helps them be battle-ready. Training at Camp Williams began shortly after its creation in 1914, when President Wilson set aside 18,700 acres of land for the purpose of military training.

Beginnings of UTNG

The Utah Legislature established the “National Guard of Utah” as the official territorial militia in 1894 under the Militia Act. The UTNG was immediately called upon to control organized groups of unemployed workers as they passed through the state on their way to protest in Washington D.C. Later in the year, units of the UTNG prevented violent conflict between settlers and Ute, Paiute, and Navajo bands during a regional grazing dispute.

A number of Utah units were mustered into federal service during the Spanish-American War, with two units providing combat service overseas to help open the way for U.S. infantry forces to enter Manila. The two Utah units remained in the Philippines following the war to fight against a growing Filipino insurgency that would become known as the Philippine Insurrection. The Utah units were welcomed home as heroes in August 1899.

Following the Spanish-American War, the UTNG was reorganized into two infantry battalions, a single artillery battery, a cavalry troop, a signal company, and a hospital company. Units were housed within drill halls, which consisted of converted school buildings, rented dance halls, and other public buildings. Training within their communities was largely limited to cleaning and maintenance of equipment, marching, and limited weapon drills.

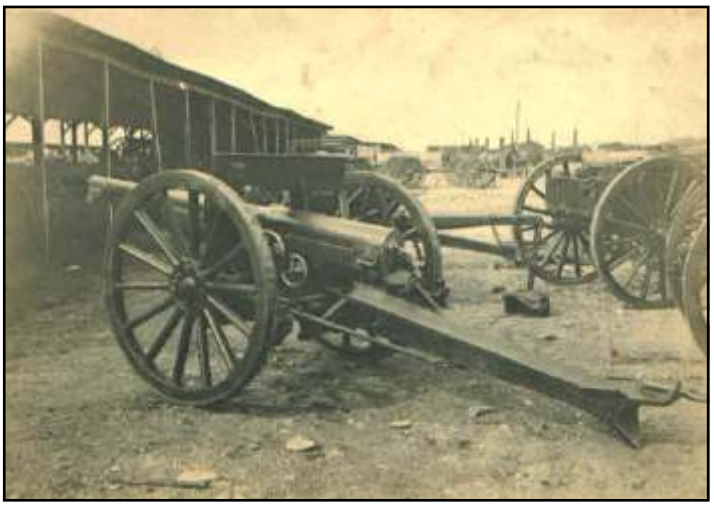
While facilities at Fort Douglas were suitable for limited field training, it was soon evident that the UTNG required a dedicated training area. A remote area near the Jordan Narrows was selected. On April 24, 1914, 18,700 acres of land were withdrawn by executive order of President Woodrow Wilson for use by the UTNG as a permanent maneuver area and target range for both artillery and small arms munitions. Though quite distant from population centers at the time, the area was centrally located and provided reasonable access to Utah's cavalry and horse-drawn artillery units.

Preparing for WWI

Training at the Jordan Narrows training site, later named Camp W.G. Williams, quickly grew in importance as the nation slowly entered the First World War. As the prospect of war loomed, the War Department directed yet another reorganization of the UTNG. The majority of cavalry units were converted to light artillery batteries, increasing Utah's artillery capability from a single battery to an entire regiment.

In preparation for their deployment in Europe, the regiment gathered at Jordan Narrows in July 1917 for a three-week period of intensive artillery training. Upon completion of the training, the regiment was issued orders to report to Camp Kearny, California, for continued training. The regiment was sent to France in September 1918, where they began training on the French 75 mm guns. The regiment arrived just as the war was drawing to a close, and were never assigned a combat mission. The war ended in November, and by January 1919, the regiment returned home.

Following the First World War, the remaining cavalry squadron was converted to a field artillery regiment. Both regiments continued to train with French 75 mm guns at Camp Williams into the 1930s. In the early



75 mm field gun similar to ones in use at Camp Williams following the First World War.

1930s, French 75 mm guns began to be replaced with towed 155 mm Howitzers and vehicle-towed 75 mm guns.

Service in WWII

The U.S. entry into the Second World War meant there would be even more changes in UTNG organization and training as artillery regiments were split and reorganized. All of Utah's artillery battalions and the newly formed 115th Engineer Battalion were sent overseas and served combat duty on Guadalcanal, New Britain, the Philippines, the Marshall Islands, the Marianas Islands, and Okinawa. The 204th was the only battalion sent to the European Theater, serving in a number of campaigns across France and into Germany.

When the National Guard entered federal service in 1941, Camp Williams was turned over to the regular Army and served as the main training center for Fort Douglas. Camp Williams doubled in size as the Army trained nearly 5,000 men at the post. By June 1943, the Army had constructed 100 permanent and temporary buildings at the camp. Additionally, airstrips and firing ranges were constructed in a number of locations at the training site. In April 1947, the Army concluded operations at Camp Williams and returned the post to the State of Utah.

Artillery Training Continues

The National Guard continued to train for their wartime mission at Camp Williams, and during the Korean War, three of Utah's artillery battalions were again sent overseas. Following the Korean War, UTNG units continued to change and adapt to their growing role in the nation's defense.

Present-day training at Camp Williams provides specialized winter, desert, mountainous and amphibious training. A unique benefit of current combat training at Camp Williams is that training areas resemble the same types of environments encountered by those currently serving in Iraq and Afghanistan.

While military training is beneficial to protecting our freedom, it can leave behind items that may pose a hazard. “So many years of artillery training left behind a legacy of the past and explains why old munitions are present on lands surrounding Camp Williams,” said Robert Price, MMRP technical lead for the UTNG. “Munitions may take the form of expended ammunition, munitions fragments, munitions that were discarded or abandoned and even rounds that didn't function properly.”

To address the problem of old munitions, the UTNG is administering the Military Munitions Response Program (MMRP), a specialized program to address the potential hazards that munitions may have created on non operational military ranges. “Artillery training has been and will continue to be an important part of the Camp Williams mission,” said Price. “Our hope is that the MMRP will ensure training that took place so many years ago will not create a hazard in the present day.”

**Historical information was obtained from Shaun Nelson, Cultural Resources Program Manager for the UTNG.*

William Gray Williams

William Gray Williams was born in Tredegar, Wales in July 1872 and moved to Malad, Idaho, with his family in 1875. He moved to Utah in 1883, where he lived until his death on January 23, 1948.

Williams began serving in the UTNG in 1900 and quickly moved up in rank and respect. He was first appointed adjutant general in 1917 but was called into active service during WWI, where he served as a major. Following his service in WWI, he was reappointed as adjutant general and served in that capacity from 1920 until 1946. In 1931 he was promoted to the rank of Brigadier General, his highest ranking prior to retirement.

Williams was instrumental in building up the training site at Camp Williams and has been recognized for bringing greater stability to the UTNG as it experienced changes in training and increased recruitment. By requiring hard work and discipline from his men, he earned their respect and elevated their combat readiness. Williams was a great leader who was well respected by his superiors, soldiers and staff, making him a worthy namesake for Camp Williams.

Assessing the risk: Risk Assessments and the MEC HA

Reports like the Remedial Investigation reports being published this summer and fall for the Military Munitions Response Program (MMRP) at Camp Williams can be summarized in one word: technical. A lot of technical work goes into a Remedial Investigation, so naturally, the information comes out in a technical way. In an effort to familiarize community members with some of the technical information contained in the reports, the concept of a Risk Assessment will be addressed.

"Part of the goal of a Remedial Investigation is to determine what risk a site may pose to human health and the environment, so that risk can be eliminated or minimized," said Robert Price, MMRP technical lead for the Utah National Guard (UTNG). "To achieve this goal, the UTNG completed Risk Assessments at each of the six sites involved in the MMRP."

Risk Assessments are required during environmental investigations. They use the information collected during field work to paint a statistical picture of what risks may be present at a site. "Traditional Risk Assessment methods have been in place for years and have been used during many different environmental investigations," said Price. "However, once the MMRP was underway, it was clear that munitions were not addressed by traditional Risk Assessment methods, and an alternative method for calculating the risk of munitions needed to be found."

In 2004, the EPA, in connection with other federal agencies, states and tribal participants, formed a working group to create a consistent method for calculating munitions risk at MMRP sites. This working group created an alternate risk assessment method known as the Munitions and Explosives of Concern Hazard Assessment , or MEC-HA.

Figure 1

Explosive Hazard Component	Input Factor	Maximum Scores	Weights
Severity	Energetic Material Type	100	10%
	Location of Additional Human Receptors	30	3%
Component Total		**130**	**13%**
Accessibility	Site Accessibility	80	8%
	Total Contact Hours	120	12%
	Amount of MEC	180	18%
	Minimum MEC Depth/ Maximum Intrusive Depth	240	24%
	Migration Potential	30	3%
Component Total		**650**	**65%**
	MEC Classification	180	18%
	MEC Size	40	4%
Component Total		**220**	**22%**
Total Score		**1000**	**100%**

Figure 2

Category	Site Score	Description
1	860 -1000	Sites with the highest hazard potential under current-use conditions.
2	720-855	Sites with a hazard potential under current-use conditions.
3	475-715	Sites compatible with current uses, not with more intrusive future uses.
4	115-470	Sites compatible with current or future uses.

"The MEC-HA allows a project team to evaluate the potential explosive hazards at an MMRP site by looking at three components: severity, accessibility, and sensitivity," said Price. According to Price, the severity component determines the severity of an outcome if an explosive munitions item were to detonate, accessibility determines how likely it is that a person would come into contact with an item, and sensitivity determines the likelihood that an item will detonate if found. Each of the three components use different input factors to numerically define the potential hazard. Figure 1 shows the categorical breakdowns, as well as the maximum possible score each sub-category can recieve on any particular site. Each input factor is scored to reflect the potential risk it poses.

Once all input factors are scored, the scores for each are combined to create a component total. Then component totals are combined to create a total score for each MMRP site. The total score is then associated with one of four hazard levels with Category 1 being the most hazardous and level 4 being the least hazardous (see figure 2).

"Knowing the category of sites assists us when we develop cleanup alternatives for each site," said Price. "Sites that score as a category one, two, or three will require some form of cleanup to lower the potential hazard to a Category 4 hazard level, which is considered an acceptable risk."

Sites that require cleanup will move into the next phase of the investigation process known as the Feasibility Study. During this phase, different cleanup alternatives will be evaluated and the best method to lower the site score to a Category 4 hazard level will be selected.