UTAH NATIONAL GUARD

MUNITIONS REVIEW

News of the MMRP project at Camp Williams, Utah

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CERCLA to act as guideline during MMRP investigation

Waste is something that every civilization produces, and learns to dispose of. As civilizations have progressed, the type of waste has become more complex. Our civilization has gone from having basic types of human waste to having nuclear waste, and other types of complex waste. Methods of disposal needed to progress as well, and until recent years people were unsure and uneducated of how best to dispose of these new types of waste.

In past years, it wasn't uncommon for people to dispose of hazardous waste in a landfill or body of water. Unfortunately, many people were unaware of the damage they were causing to the environment and human health. As a response to the improper disposal of hazardous wastes, the federal government created the Comprehensive Environmental Response, Compensation, and Liability Act or, CERCLA.

CERCLA is often referred to as Superfund and was created in 1980 to outline the methods and requirements that must be followed during the investigation and cleanup of hazardous waste sites. It has since become the standard procedure for other environmental investigations like the Military Munitions Response Program (MMRP) at Camp Williams.

"CERCLA establishes a known framework for the investigation and cleanup action," said Robert Price, the MMRP technical lead for the Utah National Guard. "It also provides guidance for public participation and regulatory involvement."

CERCLA creates consistency in environmental cleanups and investigations. When CERCLA is followed, it ensures that a site will be investigated and remediated thoroughly, meeting the standard set by the federal government.

Generally speaking, a site involved in an environmental investigation moves step by step through the CERCLA process. However, a site can be recommended for "No Further Action" if, in the early investigation stages, it is determined there is no risk to human health and the environment.

"If during the MMRP investigation it is found that a site does not contain munitions or other risks to human health and the environment, we may recommend 'No Further Action' for the site," said Price. "If this recommendation is acceptable, the site can then be closed out."

Of the six Munitions Response Sites, or MRS, two are in the Site Inspection stage of the CERCLA process. During this phase the Southeast Area and Southwest Area MRSs will be investigated to determine if there is any potential for munitions to be present at these sites.

"The Site Inspections at the Southeast and Southwest Areas won't quantify the contamination," said Price. "The Site Inspection will

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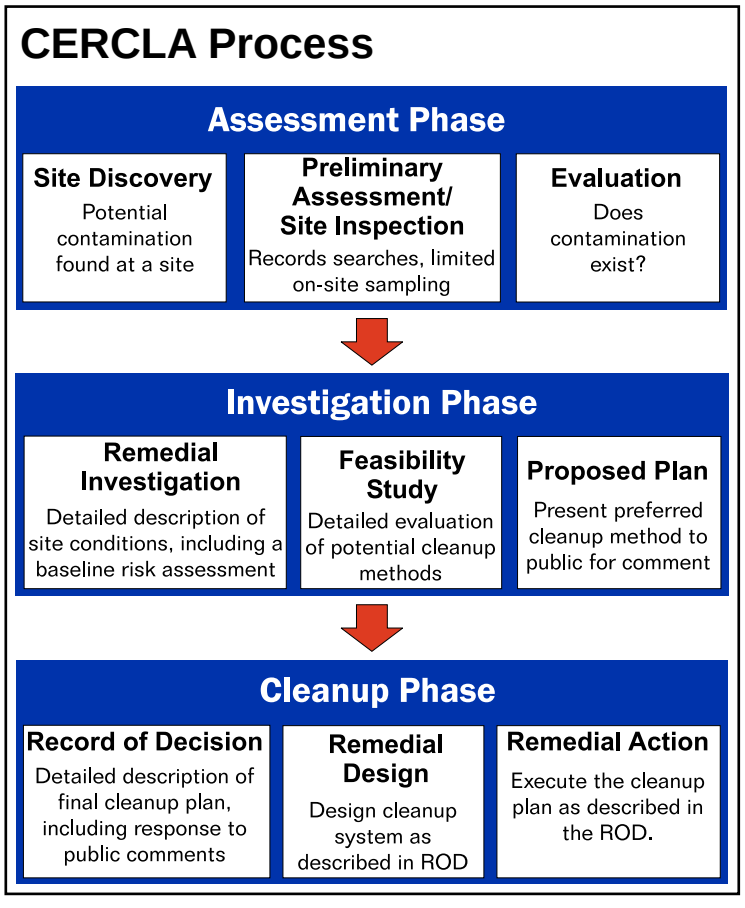

MMRP field work begins this spring

Contractors use hand-held magnetometers to detect metal anomalies. These instruments will be used during the investigations taking place this spring.

From a distance, one might think a group of people scanning the ground with metal detectors is searching for buried treasure. But this is no ordinary group of people. Yes, they are searching for something, but not buried treasure. They are looking for munitions--specifically, munitions from previous military training activities that took place many years ago at and around Camp Williams.

Contractors working for the Utah National Guard (UTNG) are conducting investigative field work this spring at six sites involved in the Military Munitions Response Program (MMRP) at Camp Williams. The purpose of the field work is to determine if munitions are present at these sites, all of which are located outside the current Camp Williams boundary.

"This effort will be the main data collection portion of this investigation," said Jeff Fitzmayer the technical lead for Parsons, the contractor performing the MMRP investigation. "The data collected during the field work will be used to help make decisions regarding the need for future investigation or cleanup at the six MMRP sites."

Each of the sites will be investigated by teams of trained professionals. "The crews conducting the field work are made up of munitions specialists," said Fitzmayer. "These crews are trained to investigate the sites. They know what they are looking for, and they know how to ensure the investigations are conducted in a safe and thorough manner."

Site Inspection

The Southeast and Southwest Areas, located near the southern boundary of the installation, are in the Site Inspection phase of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process. CERCLA is the law that outlines the cleanup process used during environmental investigations.

The Southeast and Southwest Areas are one phase behind the other four sites because they were added to the program after the other sites had completed their Site Inspections.

The preliminary field work for the Southeast and Southwest Areas was completed in April. The investigation methods used at these two sites differed slightly from the investigation methods that will be used at the other four sites, which are located near the northern and eastern boundaries of the installation.

The remaining four sites are farther along in the investigation process, and are undergoing the Remedial Investigation phase. According to Fitzmayer, a Site Inspection differs from a Remedial Investigation because the Site Inspection attempts to determine if

Field Work Points of Contact

Utah National Guard Technical Point of Contact	Parsons MMRP Technical Lead	Utah National Guard Public Affairs	Emergency Response
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munitions are present at the site. "During a Site Inspection, investigation methods involve a visual reconnaissance with minimal effort at locating subsurface items," said Fitzmayer. "The focus on visual reconnaissance allows personnel to make a quick determination if Munitions and Explosives of Concern (MEC) are likely present at the site." During the Remedial Investigation, the sites are more thoroughly investigated using more sophisticated equipment.

In April, contractors used hand-held analog magnetometers to help them search the surface for indications of past munitions use while they conducted visual reconnaissance at the Southeast and Southwest Areas. While this equipment is able to identify anomalies, it cannot store data, such as the size or location of anomalies, for future use. Contractors walked predetermined routes to ensure that each site was thoroughly investigated and a recommendation for the site could be made with an acceptable amount of data.

"The results of the Site Inspections at the Southeast and Southwest Areas are currently being evaluated," said Robert Price, the MMRP technical lead for the UTNG. "We will shortly make a determination whether or not the finds at these two sites merit moving them into the next phase of the CERCLA process, the Remedial Investigation phase, which would involve a more thorough investigation of these sites."

Remedial Investigation

The equipment used during the Remedial Investigation may be more sophisticated than that typically used during a Site Inspection. In addition to hand-held magnetometers, personnel will use Digital Geophysical Mapping (DGM) equipment. This DGM equipment is more sensitive and can measure and record the geophysical signals that result from buried metal objects. "Some DGM equipment is passive, measuring anomalies in the local magnetic field, and some DGM equipment sends an electromagnetic current into the ground," said Fitzmayer. "Either way, the resulting geophysical signal is recorded at a rate of approximately once per second as the DGM operator walks over the ground. Each geophysical signal is paired with a location coordinate from a high-precision GPS unit. This way, the location of metal anomalies is recorded, and anomalies can be flagged for follow-up investigation."

According to Fitzmayer, anomalies that match the signal of a buried munition will be dug up for further investigation. Crews will dig with shovels and other hand tools until they can visually observe the source of the anomaly and determine if the anomaly is a buried munition.

The field work at the four sites included in the Remedial Investigation will continue through the next few months. Updated information and a field work schedule will be provided at: www.cwmmrp.wordpress.com. J

Field Work Equipment

EM61-Mark2

The EM61-Mark2 is usually pulled on a cart by a single operator. However, in areas with rocky terrain, like some of those around Camp Williams, this instrument is more effective when "worn" by the operator.

G-858

The G-858 pictured above is a type of hand-held magnetometor. Contractors will use this instrument while walking in grids like those pictured above.

G-858

The G-858 can only detect ferrous (iron) metal. In munitions response work, most items of interest contain iron, making this an effective instrument.

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determine if there is potential for munitions to be present. If so, the sites will be moved into the Remedial Investigation phase of the CERCLA process and the contamination in those areas will then be quantified."

The remaining four MRSs have completed their Site Inspections, and are in the Remedial Investigation stage of the CERCLA process. During the Remedial Investigation, the Artillery Impact Area Buffer Zone, Rose Canyon Training Area, Wood Hollow Training Area, and the Southeast Simulated-Attack Area will be investigated further to identify munitions contamination.

"The purpose of the Remedial Investigation is to determine the nature and extent of contamination," said Price. "In other words, we will determine what types of munitions are present, roughly how much is there, and where munitions are located." If munitions are discovered during the RI, those sites will likely be moved into the next phase of the CERCLA process where remedial actions will be proposed. J

CERCLA Quick Facts

- Created in response to the discovery in the late 1970s of a large number of abandoned, leaking hazardous waste sites that posed a serious threat to human health and the environment.
- Commonly known as Superfund.
- Enacted by Congress in 1980.
- Amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. SARA introduced more stringent cleanup standards.
- Used as the framework for other environmental cleanups and investigations such as the MMRP program taking place at Camp Williams.

Restoration Advisory Board

Affiliation	Name	Email
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Utah National Guard, RAB Co-Chair	Robert Price	rprice@campwilliamsrab.org

Restoration advisory board established

The Restoration Advisory Board (RAB) is a group of stakeholders and citizens who are working with the Utah National Guard as it participates in the Military Munitions Response Program, or MMRP, at Camp Williams. The MMRP addresses munitions and explosives of concern that may be located on former training lands that are no longer owned by the UTNG.

RAB members were selected or appointed in February. The RAB includes representatives from the communities and counties affected by the MMRP project. Other stakeholders such as property owners and state regulators are also representing their organization on the RAB.

RAB meetings are open to the public and are held on a quarterly basis in an effort to provide RAB members and the public with updated information about the MMRP investigation taking place at Camp Williams. A complete listing of RAB members is included above. J