



Badlands Bombing Range Newsletter

U.S Army Corps of Engineers

Omaha District



March 2003

RECONNAISSANCE REPORTS

The Badlands Bombing Range Newsletter is produced by the U.S. Army Corps of Engineers, Omaha District to present current information about environmental cleanup programs underway at the Former Badlands Bombing Range (BBR). Many state, federal, and tribal agencies are involved in the project including the Oglala Sioux Tribe (OST) and its BBR Project Office, the U.S. Army Corps of Engineers, the U.S. Air Force, and the National Park Service.

This team took great strides in its work and made much progress during the year 2002. For example, the U.S. Army Corps of Engineers conducted an Engineering Evaluation and Cost Analysis (EE/CA) to evaluate the cost and feasibility for OE Removal Actions and environmental investigations of potential OE residue at various sites. Other activities that will be further discussed in this newsletter include:

- Field activities at the Former BBR, which addressed sites with ordnance and explosives (OE).
- Homestead Investigations
- Preliminary Assessment/Site Investigations
- Planning for the Lakota Education and Heritage Center

The Oglala Sioux Tribe, working through Emma-Featherman Sam and the BBR Office, has been compiling Reconnaissance Reports. These reports will support future contractor logistics in the field as well as provide public information for future tribal developments, such as new home sites. Parsons Engineering Science, contracted by the Army Corps of Engineers, will be finishing up field work in Sector 10 this summer and will be investigating several homesteads in sectors 12 through 28. This information, and the information gathered during other activities described in this Newsletter, will help the USACE develop plans for removal of potential UXO. Plans are being made now for starting the first ordnance removal actions in 2004.

Technology Yields Promising Results for Ordnance and Explosives

Innovative use of airborne helicopter mounted geophysical technology at the former Badlands Bombing Range, Pine Ridge Reservation, S.D. has resulted in successful detection of buried Ordnance and Explosives (OE). During the fall of 2002, the airborne geophysical system was used to survey two 50-acre plots in Sector 10. The survey identified approximately 200 significant buried metallic anomalies, which will be investigated and excavated during the summer 2003 field season.

Parsons Engineering Sciences and Oak Ridge National Laboratory joined together to optimize the system, which uses cesium vapor magnetometers mounted to a helicopter. The helicopter flies about 3 meters above the ground, surveying up to 100 acres of flat terrain a day. This is a cost-effective method to map an area with large ordnance items and may be incorporated into future ordnance projects. Results from the investigation will be published in the Volume IV Engineering Evaluation and Cost Analysis (EE/CA).

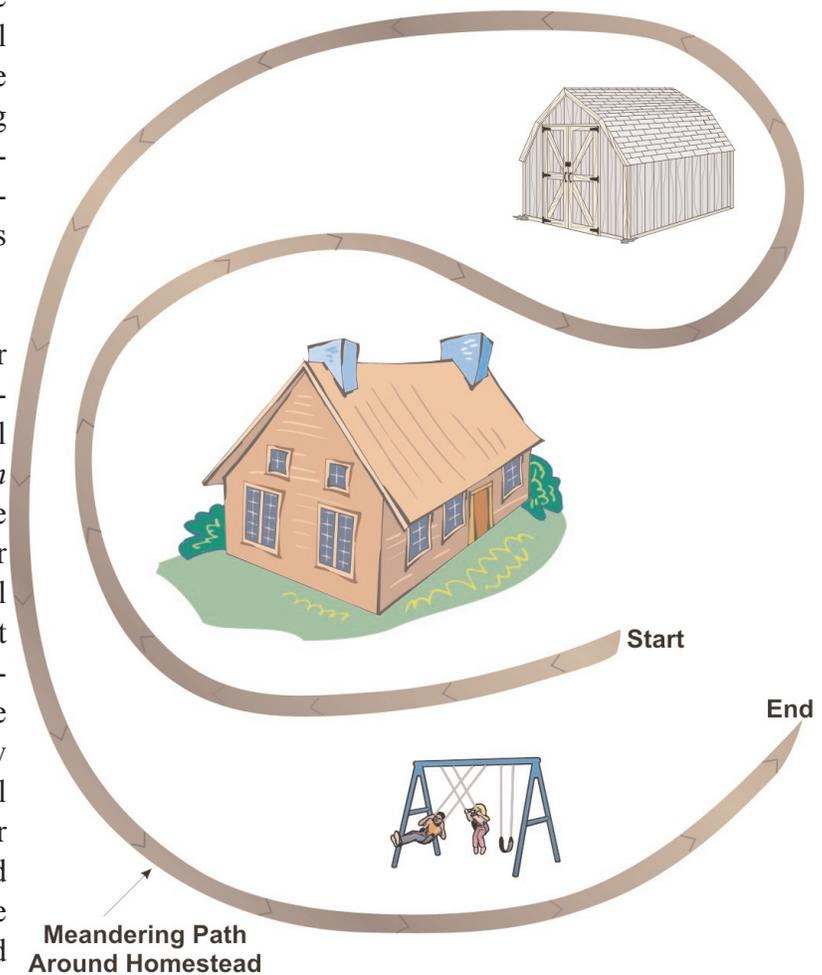
Partners in Progress

U.S. Army Corps of Engineers • Oglala Sioux Tribe • National Park Service • U.S. Air Force

Homestead Investigations Ensure Safety, Provide Valuable Information

The U.S. Army Corps of Engineers and the Badlands Bombing Range Project Office will be investigating homesteads in areas of the former Badlands Bombing Range this spring to look for evidence of past military operations. The primary purpose of the investigations is to ensure the safety of the residents living on these properties.

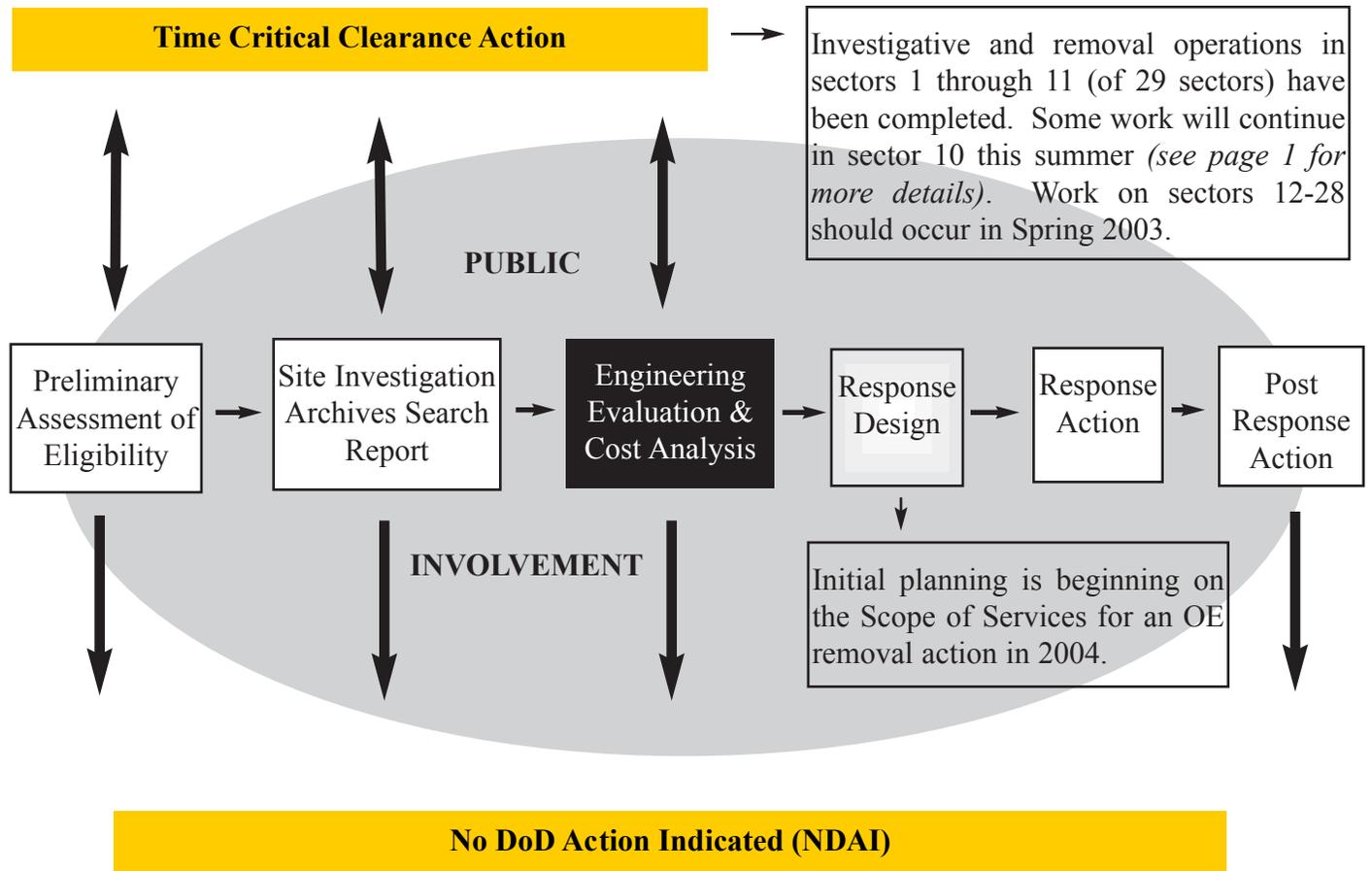
With permission from the property owner and occupants, trained technicians will perform visual inspections and use a metal detector on a meandering path (see picture on right) to locate any buried objects. These inspections help determine if further action/clearance is required. If buried metal items are found, we will arrange a convenient time for you to leave the area as a safety precaution so that excavation activities can take place. Most excavations should be shallow and performed with a shovel, but a small backhoe will be available to excavate deeper than two feet. All non-military items found will remain on the land as property of the land-owner. Military items will be identified and removed for disposal.



Planning for the Lakota Heritage and Education Center Continues

Planning funds for the cultural center were earmarked in 2000 according to Bill Supernaugh of the National Park Service. The funds were put to use developing planning concepts, engineering analysis and economic feasibility studies. The project, in the south unit of the Badlands National Park, has involved a multi-discipline and agency team headed by the National Park Service's Denver Service Center. The Innovation Group included alternative locations in its feasibility study, with a focus on the preferred site on Red Shirt Table. An environmental assessment (EA), which will describe the concept plan, preferred location and associated impacts, will be available during the summer of 2003. Unfortunately, there are no funds currently available in the Park Service's construction program to implement the project recommendations.

ORDNANCE AND EXPLOSIVES PROCESS



FIELD WORK: GATHERING DATA

Investigations at a former Army Demolition Area were conducted as part of an overall Preliminary Assessment/Site Investigation (PA/SI) for the Badlands Bombing Range, which includes previous investigations at four other disposal areas. The main objective of the PA/SI was to determine the presence or absence of contaminants in soil, surface water and sediments at the demolition area location.

The study consisted of first defining the boundaries of the demolition area. Soil samples were taken in areas within and adjacent to this boundary. Because White Creek, a tributary of White River, is adjacent to the Site, sediment and surface water samples were collected at and upstream of the demolition area. The results of these samples showed no contamination related to explosives in any soil, sediment or surface water samples collected in the vicinity of the demolition area.

The contaminants that were detected were compared to levels the U.S. Environmental Protection Agency (EPA) uses as a guideline to protect human health and the environment. All metals and organic constituents found in the soil and sediment were eliminated as contaminants of potential concern, because they did not exceed EPA's risk-based concentrations or were found to be naturally occurring elements.

TARGET AREAS SAMPLED FOR POTENTIAL EXPLOSIVE RESIDUE

Field investigations, which are nearly complete, have allowed the BBR team to pinpoint target areas for sampling. Areas with the highest potential for human exposure and concentration of ordnance debris will be selected for soil sampling during the summer of 2003. These areas will be sampled first to look for explosive residue, and if found, the sampling area may be increased.

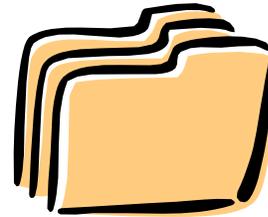
The soil study is in its planning stage. Members from the Badlands Bombing Range Project Office, U.S. Army Corps of Engineers, EPA and the State of South Dakota are working together to locate the best sampling locations. A work-plan is being developed and will be available for review and comment in the spring.

ACRONYMS

BBR	Badlands Bombing Range
EE/CA	Engineering Evaluation/Cost Analysis
EMI	Environmental Management, Inc.
EOD	Explosives and Ordnance Demolition
EPA	U.S. Environmental Protection Agency
OE	Ordnance and Explosives
ORNL	Oak Ridge National Laboratory
OSRWSS	Oglala Sioux Rural Water Supply System
OST	Oglala Sioux Tribe
RAB	Restoration Advisory Board
ROE	Right-of-Entry
USACE	U.S. Army Corps of Engineers
UXO	Unexploded Ordnance

WANT MORE INFORMATION ABOUT THE BBR PROJECT?

Visit one of the BBR Project Document Repositories:



Badlands Bombing Range Project Office
Pine Ridge, South Dakota

Oglala Lakota College
Kyle, South Dakota

Rapid City Public Library
Rapid City, South Dakota

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