



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
601 E. 12th STREET
KANSAS CITY, MISSOURI 64106-2896

June 17, 2010

Environmental Programs Branch
Planning, Programs and Project Management Division

Mr. Ken Rapplean, Remedial Project Manager
U.S. Environmental Protection Agency, Region VII
Superfund Division, Kansas/Missouri Remedial Section
901 N. 5th Street
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Ms. Stacey Stricker
Nebraska Department of Environmental Quality
The Atrium 1200 N Street
P.O. Box 98922
Lincoln, NE 68509-8922

Dear Mr. Rapplean and Ms. Stricker,

Enclosed for your records is the Final Public Involvement Plan for the former Nebraska Ordnance Plant. No additional comments were submitted on the Draft Final document and the document is re-submitted as Final. Two hard copies of replacement pages of the cover page, signature page and spines are included along with 1 compact disc (CD) in electronic format. If you have any questions, please contact me at (816) 389-3172 or by email at Kristine.M.Stein@usace.army.mil

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine M. Stein", is written over a faint, larger signature.

Kristine M. Stein
Project Manager

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**FINAL
PUBLIC INVOLVEMENT PLAN**

**Former Nebraska Ordnance Plant
Mead, Nebraska**

Prepared for

**United States Army Corps of Engineers
Kansas City District**

**Contract No. W912DQ-08-D-0001
Task Order 0002**

June 2010

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FINAL
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**Former Nebraska Ordnance Plant
Mead, Nebraska**

June 2010

I hereby certify that the enclosed *Public Involvement Plan*, shown and marked in this submittal, is that proposed to be incorporated with the Long-Term Response Action Contract Number W912DQ-08-D-0001, former Nebraska Ordnance Plant near Mead, Nebraska. This Plan is in compliance with the contract specifications and is submitted for government approval.

Approved by:



ECC Project Manager

6-17-10

Date

Accepted by:

USACE Contracting Officer

Date

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LIST OF ACRONYMS AND ABBREVIATIONS

AFBMD	Air Force Ballistic Missile Division
AOP	advanced oxidation process
ARDC	Agricultural Research and Development Center
CD	compact disc
CDM	CDM Federal Programs
CENWK	Corps of Engineers, Northwest Division, Kansas City District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CRA	Containment Removal Action
CWM	chemical warfare material
DERP	Defense Environmental Restoration Program
DOD	U.S. Department of Defense
EE/CA	Engineering Evaluation/Cost Analysis
EW	extraction well
FEW	focused extraction well
FFA	Federal Facility Agreement
FS	Feasibility Study
FUDS	Formerly Used Defense Site
GAC	granular activated carbon
GCW	groundwater circulation well
GMP	groundwater monitoring program
gpm	gallons per minute
HA	Health Advisory
LL	Load Line
MCL	Maximum Contaminant Level
MUD	Metropolitan Utilities District
µg/L	micrograms per liter
MW	monitoring well
NDAI	No DOD Action Indicated
NDEQ	Nebraska Department of Environmental Quality
NRD	Natural Resource District
NOP	Nebraska Ordnance Plant
NU	University of Nebraska
OE	Ordnance and Explosive
OU	Operable Unit
PIP	Public Involvement Plan
RAB	Restoration Advisory Board
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
ROD	Record of Decision
TCE	trichloroethene
TNT	2,4,6-trinitrotoluene

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

URS	URS Group, Inc.
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 OVERVIEW OF PUBLIC INVOLVEMENT PLAN

This section provides an introduction to the Public Involvement Plan (PIP), and describes the organization of this document.

1.1 Introduction

This PIP was prepared by ECC for the U.S. Army Corps of Engineers (USACE), Northwest Division, Kansas City District (CENWK). CENWK has developed this PIP to facilitate communication between the community surrounding and within the area identified as the former Nebraska Ordnance Plant (NOP), the state and federal regulators, and CENWK. CENWK encourages community involvement with the containment and remediation process at the former NOP, and will utilize the community activities discussed in this PIP to inform residents about site activities and provide opportunities to be involved.

This PIP revises and updates the previous PIP developed for CENWK in 2008 (URS Group, Inc. [URS], 2008). The 2008 PIP was a revision and update to the Site-Wide Community Relations Plan developed for CENWK in 1997 (Woodward-Clyde, 1997a). The purpose of a PIP is to outline community relations activities that are to be conducted throughout the containment and remediation process, as required by the National Contingency Plan.

This PIP includes the remaining Operable Units (OU) at the former NOP (OU2 and OU3) and the Ordnance and Explosives (OE) Areas. An OU is a term which refers to a discrete portion of a remedial response where action is undertaken in incremental steps to remedy risks to human health or the environment. OU1 focused on soils contaminated by explosive compounds; OU2 primarily addresses groundwater; and OU3 addresses a former landfill located on site, as well as any unidentified waste disposal areas not included in OU1 or OU2. The remedy is complete for OU1 and OU1 is not included in this PIP. OU5 consists of areas associated with University of Nebraska (NU) activities that involved the disposal of various wastes and, as such, is not included in this PIP. The term OU4 is not currently assigned.

The information in this PIP is based upon input received from the community through public meetings, open house events, community surveys, and community interviews. This PIP includes the results of interviews of local stakeholders including area residents and various agency representatives that were conducted as part of the Situational Assessment Report (CDM Federal Programs [CDM], 2009) (see Appendix A). Site history, environmental conditions, and remediation histories of OU1, OU2, OU3, and the OE Areas are summarized from the OU1 and OU2 Records of Decision (RODs) (USACE, 1995 and Woodward-Clyde, 1997b), and other investigation and remediation documents.

1.2 Public Involvement Plan Organization

This PIP is written in general accordance with the *Superfund Community Involvement Handbook* (U.S. Environment Protection Agency [USEPA], 2005) and *Public*

Participation in the Defense Environmental Restoration Program (DERP) for Formerly Used Defense Sites (FUDS) (USACE, 2004), which are appropriate for public involvement activities associated with the former NOP. Regulations for Restoration Advisory Boards (RABs) can be found in the RAB Rule, 32 Code of Federal Regulations (CFR) Part 202, May 2006. Additionally, the U.S. Department of Defense (DOD) has developed the *Restoration Advisory Board Rule Handbook* (Office of the Secretary of Defense, 2007) to supplement the RAB Rule.

This document includes five sections:

- Section 1.0 - Overview of Public Involvement Plan
- Section 2.0 - Capsule Site Description
- Section 3.0 - Community Background
- Section 4.0 - Public Involvement Activities and Techniques
- Section 5.0 - References

Appendices include:

- Appendix A - Situational Assessment Report
- Appendix B - List of Interested Parties
- Appendix C - Location of the Information Repository

2.0 CAPSULE SITE DESCRIPTION

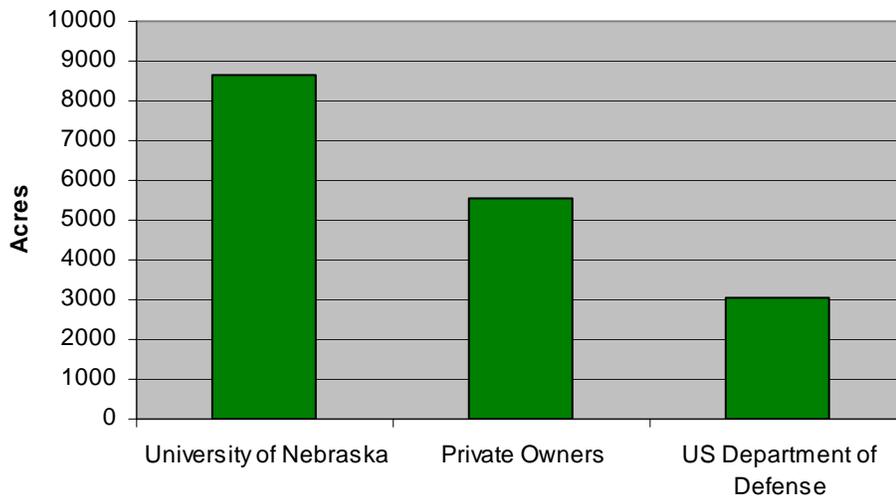
A summary description of the site location; a history of the former NOP; a history of the environmental condition and remediation efforts at the former NOP to date; and descriptions of OU1, OU2, OU3 and the OE Areas are provided in Section 2.0.

2.1 Site Location and Description

The former NOP is located in Saunders County (see Figure 2.1-1) in eastern Nebraska. It is located south and east of the Village of Mead. The Village of Mead is approximately 35 miles northeast of Lincoln and 30 miles west of Omaha. Figure 2.1-2 presents a map of the site and depicts the extent of groundwater contamination (OU2).

The former NOP is approximately 17,250 acres in size. Currently a little over half of that acreage (8,650 acres) is owned by NU, which operates an Agricultural Research and Development Center (ARDC). ARDC includes facilities for research in the areas of dairy, cattle, swine, crop, agronomy, entomology, and environment. Other portions of the former NOP are owned by DOD for use by the Nebraska National Guard and Army Reserves. Private ownership accounts for the remaining portions of the former NOP. The privately-owned land is utilized for pastures and crops, as well as light industry located near the northern end of the site. Adjacent land-use is primarily agricultural. Figure 2.1-3 below provides a representation of the current owners of the former NOP property.

Figure 2.1-3
Current Owners of Former NOP Property
Former Nebraska Ordnance Plant, Mead, Nebraska



The former NOP is nearly flat, but has a few gentle slopes. Surface water drainage in the eastern portion of the site is generally to the south-southeast, toward Johnson Creek, Clear Creek, and the Natural Resource District (NRD) Johnson Creek Reservoir. In the western portion of the site, surface water drains to the southwest toward Silver Creek.

The majority of residences, farms, industries, and municipalities in eastern Nebraska derive their water supply from groundwater. The groundwater is located in the naturally occurring sand and gravel deposits below the ground surface, as well as in a sandstone formation located 30 feet or more below the ground surface at the former NOP. The general trend of groundwater flow in the area is south-southeast, toward the Platte River Valley. Groundwater at the site is used for agricultural and domestic uses. Currently, 70 residential/water supply wells are sampled on a quarterly, semi-annual, or annual basis to monitor groundwater quality.

Groundwater within the Platte River valley west of Omaha has been developed by the Metropolitan Utilities District (MUD) to provide additional drinking-water supplies for residents of Omaha and the surrounding area. The Platte West Well Field, located approximately two miles northeast of the former NOP, consists of 42 production wells that pump water from the Platte River alluvial aquifer. Construction of the well field and associated water treatment facilities was completed in July 2008. As part of MUD's Clean Water Act Section 404 Permit (No. 199910085) which is administered by the USACE Omaha District, MUD is required to produce an annual report concerning the former NOP. The objective of the annual report is to use available hydrogeologic data, both physical and chemical, as well as groundwater modeling to evaluate the impact of the operations of the well field on the aquifer and, more specifically, on the contaminant plumes and remediation efforts at the former NOP. Annual reports will be available to the general public at the MUD website at www.mudomaha.com/plattewest.

2.2 Site History

The former NOP was primarily used for agriculture until the early 1940s. In order to provide support to the war effort during World War II, the U.S. Government purchased the land in 1942 and constructed NOP, an ordnance assembly facility. The Nebraska Defense Corporation operated NOP under contract to the Army from 1942 until 1945. NOP was a large facility that had numerous operations including:

- Four load lines that produced 90- to 2,000-pound bombs;
- Bomb Booster Assembly Area - Boosters amplified the effect of the detonators and ensured the complete detonation of the main explosive;
- Ammonium nitrate plant;
- The Burning/Proving Grounds where fuses were tested and materials were destroyed by burning;
- Landfill;
- Wastewater treatment plant;
- Analytical laboratories;
- Storage facilities; and
- Administration facilities which included offices, residences, maintenance shops, and a laundry.

Routine plant operations included washing bombs and explosives handling equipment prior to bomb loading and assembly. The completed bombs were washed again after assembly. Washwater from the plant operations was discharged into sumps and open ditches.

In 1945, ordnance production operations were terminated, and the facilities and operations were placed on inactive status. Finished munitions, bulk explosives, and related ordnance materials and components were stored and disposed at NOP.

During the 1945 through 1949 interim period, NOP was decontaminated and used primarily for storing and disposing of explosives and munitions, although the plant continued to produce ammonium nitrate for use as fertilizer. Decontamination procedures included scrubbing floors, as well as flushing them with high pressure water; scrubbing and cleaning rafters, pipes, and ventilation systems; flushing and sweeping contaminants into drainage ditches; and removing contaminated materials and soil for burning.

NOP was temporarily reactivated in 1950 to produce an assortment of weapons for use in the Korean Conflict. The munitions assembled included bombs, shells, rockets, warheads, block cast 2,4,6-trinitrotoluene (TNT), supplemental charges, and boosters. The use of the facility was temporary and by 1956 the facility was placed on inactive status again.

NOP was declared "excess property" in 1959, and was transferred to the General Services Administration for disposition. Approximately 1,000 acres were retained by the Army for National Guard and Army Reserve training. Twelve additional acres were retained by the Army for use as a Nike Missile maintenance area. Two thousand acres of the former NOP were transferred to the U.S. Air Force for the construction of the Offutt Air Force Base Atlas Missile Area. Forty acres were transferred to the Department of Commerce.

The Offutt Air Force Base Missile Site S-1 launch area (Atlas Missile Area) was built on 1,185 acres north of Load Line (LL) 4 of the former NOP between 1959 and 1960. Trichloroethene (TCE) was used during construction to degrease and clean pipelines used to carry liquid oxygen fuel for missiles. Historical information suggests that TCE was released as ground spills and/or discharged into surface drainage features during the construction activities. The exact locations, quantities, and dates of TCE disposal are not known. The missile facilities were abandoned in 1964 and the Atlas Missile Area and the Nike Missile maintenance area were transferred to the Nebraska National Guard. The Air Force also occupied 34 acres of the northern portion of LL 1 for use as the Air Force Ballistic Missile Division (AFBMD) Technical Area. The purpose of the AFBMD Technical Area is unclear, but historical site information suggests that parts were cleaned with TCE in a laboratory, and the spent TCE was discharged into the sewer (Woodward-Clyde, 1997b).

NU purchased approximately 9,600 acres of the former NOP in 1962 for use as an ARDC. An additional 600 acres were obtained by NU in 1964. The remaining portions

of the former NOP property were eventually purchased by private individuals and corporations.

Although the former NOP has been used primarily for agricultural and livestock production and research since being declared as excess property, several commercial enterprises have also conducted operations at the site. Apollo Fireworks operated at the former Bomb Booster Assembly Plant between 1969 and 1989. At various times, the former NOP administration buildings were leased to businesses, including insulation board and garage door manufacturing, packing material processing, and popcorn production.

Several environmental investigations resulted in the placement of the former NOP on the National Priorities List under Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) on August 30, 1990. The National Priorities List is the U.S. Environmental Protection Agency's (USEPA) list of most serious hazardous waste sites identified for possible long-term remedial response. In September of 1991, USEPA Region VII, the Nebraska Department of Environmental Quality (NDEQ) (formerly the Nebraska Department of Environmental Control), and the Department of the Army entered into a Federal Facility Agreement (FFA), previously known as the Interagency Agreement (USEPA, 1991), under Section 120 of CERCLA for investigation and remediation actions for the former NOP (USEPA et al, 1991). The USACE is the lead agency responsible for the cleanup at the former NOP. CENWK is the representative of the Army responsible for administering the FFA. USEPA and NDEQ are the regulatory agencies whose roles are to ensure that response actions at the site comply with CERCLA and the FFA.

Under the FFA, USACE is responsible for responding to releases of DOD contaminants at the former NOP. In general, the purpose of the FFA is to:

- (1) Examine environmental impacts associated with the former NOP to ensure that they are thoroughly investigated, and to ensure that appropriate remedial action is taken to protect the public health, welfare, and the environment;
- (2) Establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at the former NOP, in accordance with appropriate state and federal regulations; and
- (3) Facilitate cooperation, exchange of information and participation of the signatories in such actions.

2.3 Environmental Conditions and Remediation History

Because the former NOP is a large site with different types of contamination in different locations, investigation and cleanup activities are organized into categories termed "operable units." The OUs were organized in the following manner to help expedite investigation and cleanup activities:

- **OU1** included the upper 4 feet of soils contaminated with explosive compounds.

- **OU2** includes contaminated groundwater, explosives-contaminated soils not remediated as part of OU1 at depths greater than 4 feet below the ground surface which might act as a source of explosives contamination to groundwater, and soils contaminated with volatile organic compounds (VOCs).
- **OU3** included a former on-site landfill and former waste disposal areas not previously identified.
- **OU4** – this term is not currently assigned at the site.
- **OU5** consists of areas associated with NU activities at the ARDC and portions of the ARDC/former NOP that NU used for disposal of various wastes.

The OE Areas are not included in any of the OUs and include potential sources of explosives contamination and unexploded ordnance.

The Archives Search Report developed in 1983 was one of the first environmental restoration efforts at the former NOP (Environmental Science and Engineering, 1983). The report assessed the potential for contamination at the former NOP from military operations. The findings were primarily based on the U.S. Army Ordnance Ammunition Command's 1959 Survey of Explosives Contamination. The four load lines, the Bomb Booster Assembly Area and the Burning/Proving Grounds areas were identified as having the greatest potential for contamination from munitions production, testing and disposal. Additional studies discussed below that confirmed the contamination in these areas include:

- A Confirmation Study conducted by CENWK in 1989 (USACE, 1989);
- Polychlorinated biphenyls investigations by NU in 1984 and 1985, USEPA in 1988, and CENWK in 1993 (SEC Donohue, 1993);
- A soil, sediment, surface water, and groundwater Remedial Investigation (RI) at OU1 by CENWK in 1991 (USACE, 1991a);
- An unexploded ordnance survey and soil investigation by CENWK in 1991 (USACE, 1991b);
- A preliminary health assessment by the Agency for Toxic Substances and Disease Registry in 1991 (U.S. Department of Health and Human Services, 1991);
- A Supplemental Soil RI for OU1 by CENWK in 1991 (SEC Donohue, 1992);
- An OU2 RI by CENWK in 1992 to evaluate the nature and extent of potential groundwater contamination (Woodward-Clyde, 1993); and
- An OU3 RI by CENWK in 1995 and 1996 (Woodward-Clyde, 1996a and 1996b) to evaluate potential contamination in unidentified waste disposal areas.

The following sections summarize the environmental conditions and remediation efforts for soil and groundwater contamination at each OU.

2.3.1 Operable Unit 1

In 1991 and 1992 CENWK conducted an OU1 RI and supplemental RI to evaluate the extent (area and depth) of explosives-contaminated soil at the former NOP (USACE, 1991a, and SEC Donohue, 1992). Most sampling was based on historical wash water disposal practices during the ordnance production process. Explosive compounds

were detected in soil in all four load lines, the Bomb Booster Assembly Area, and the Burning/Proving Grounds. No significant explosives contamination was identified in the Administration Area. No live ordnance was found at the former NOP.

OU1 results indicated that explosives contamination in soil was primarily limited to soils in and under drainage ditches and sumps at the load lines and Bomb Booster Assembly Area. It is believed that this contamination originated from the discharge of water used to wash away explosives dust and residue, which resulted from the ordnance load, assemble, and pack process. In the Burning/Proving Grounds, testing and burning activities probably contributed to soil contamination. The majority of the explosives contamination was detected in shallow soil; however, at some locations explosive compounds were detected at depths of approximately 30 feet below ground surface. Explosives contaminant concentrations in the ditches generally decreased downgradient from collection sumps. The explosive contaminants most often detected were TNT, hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX), and 1,3,5-trinitro-benzene. The OU1 results are presented in the Supplemental RI Report for OU1 (SEC Donohue, 1992).

The remediation of OU1, which includes soils contaminated with explosive compounds, was completed in 1999 with the excavation and treatment of the soils using an on-site thermal treatment unit (OHM, 1998).

2.3.2 Operable Unit 2

USACE began groundwater sampling in 1989 by collecting samples from groundwater supply wells and monitoring wells. RDX, TNT, other explosives chemicals and TCE were identified in the groundwater samples. TCE concentrations at several locations exceeded the Maximum Contaminant Level (MCL) standard established by USEPA.

As a result, two ARDC water supply wells were removed from service and activated carbon treatment systems were installed at two residences southeast of the former NOP and at the ARDC Agronomy Building. Water supply well sampling has been conducted on a regular basis since 1989. Additional private residences were identified as having either TCE concentrations that exceeded the MCL or RDX concentrations that exceeded the Health Advisory (HA) standard. Currently, water is being treated and/or bottled water for human use is being supplied at five private residences southeast of the site.

In late 1989 and early 1990, a soil gas survey was conducted by CENWK to evaluate areas that may be contributing TCE contamination to the groundwater. TCE and other VOCs were detected in some samples.

CENWK conducted the OU2 RI in 1992 to evaluate the nature and extent of potential chemicals of concern in the groundwater at the former NOP that are attributable to past DOD activities. The secondary objective was to evaluate the potential nature and extent of VOC contamination in soils at three areas (Administration Area, Atlas Missile Area, and the AFBMD Technical Area) to assess whether or not these contaminated areas are possible continuing sources of VOCs in the groundwater. Groundwater samples were also collected from 136 monitoring wells and were analyzed for VOCs, explosive

compounds, and general water quality parameters. Selected monitoring wells were also analyzed for semi-volatile organic compounds and metals. Soil and soil gas samples were collected and analyzed for VOCs. Field data were also collected to characterize the geology at the former NOP and to estimate the direction and rate of groundwater flow. Groundwater samples were collected from every monitoring well on a quarterly basis beginning during the OU2 RI (August 1992) and continuing for one year. Subsequent sampling has been performed periodically at selected monitoring wells, and the site-wide groundwater monitoring program (GMP) is ongoing.

The OU2 RI identified four groundwater contaminant plumes with separate source locations identified for each plume. Two of the plumes consist primarily of explosives-contaminated groundwater (mainly RDX) and two of the plumes consist primarily of TCE-contaminated groundwater (see Figure 2.1-2). In three of the plumes, areas of comingled TCE- and explosive-contaminated groundwater exist. One plume extends past the southern boundary of the former NOP and one plume extends beyond the eastern boundary of the former NOP (see Figure 2.1-2). All four plumes are currently managed and contained by the groundwater containment system.

A groundwater Containment Removal Action (CRA) was developed for the former NOP to allow an early start for the TCE containment, which otherwise would have taken place following signature of the ROD. The specific objectives for the groundwater CRA were:

- Hydraulic containment of groundwater contamination to minimize expansion and stop downgradient movement of the two TCE plumes;
- Protection of unimpacted downgradient groundwater users;
- Treatment and discharge of extracted groundwater to meet applicable standards; and
- Periodic monitoring of the effectiveness of the containment system.

Because all of the proposed alternatives for the OU2 remedy, except for the no action alternative, included the element of hydraulic containment, the groundwater CRA was consistent with the final remedy.

The cleanup plan was documented in the Proposed Plan (Woodward-Clyde, 1995) released in October 1995. The final ROD (Woodward-Clyde, 1997b), which formalizes the selection of the cleanup method, was signed in April 1997.

The objectives of the OU2 remediation are as follows:

- Minimize the potential for ingestion of contaminated groundwater or reduce concentrations to acceptable health-based levels;
- Minimize the potential for dermal exposure to contaminated groundwater or reduce concentrations to acceptable health-based levels; and
- Minimize the potential for inhalation of chemicals released during the use of contaminated groundwater or reduce concentrations to acceptable health-based levels.

The OU2 ROD defines a remedy that included two different applications of aquifer restoration; containment and focused extraction. The goal of the hydraulic containment, (Phase I) as defined by the ROD, is to prevent groundwater outside the area of containment from becoming contaminated in excess of the Final Target Groundwater Cleanup Goals in the future. The containment portion of the remedy consisted of installing extraction wells to hydraulically contain the leading edge of contaminant plumes by pumping groundwater at a flow rate of approximately 2,300 gallons per minute (gpm). Subsequent to treatment, water is surface discharged or beneficially reused. The focused extraction portion of the remedy (Phase II) as defined in the ROD includes extraction wells located at or near high concentration areas so that contaminant mass is more rapidly removed from the aquifer relative to hydraulic containment alone. The focused extraction portion of the remedy currently consists of three focused extraction wells and a pilot scale groundwater circulation well.

Following signature of the ROD, preparation of the design documents for the selected remedy was initiated. The design was completed in phases. The objective was to design a groundwater remediation system for the groundwater contaminant plumes at the former NOP, incorporating the CRA activities initiated previously into the remedial action.

The Phase I system design included 11 groundwater extraction wells capable of hydraulic containment of the contaminant plumes, piping to transport the extracted contaminated groundwater to a central treatment facility (the Main Groundwater Treatment Plant), and piping to transport the treated water to discharge or reuse locations(s). Design and initial operating parameters for the groundwater extraction system were developed using the results of groundwater flow and contaminant transport modeling.

The final Phase I design called for groundwater to be intercepted by 11 extraction wells near the southern boundary of the former NOP. Two of the extraction wells (EW) EW--1 and EW-8, were initially installed and began extracting groundwater in October 1998 as a part of the CRA. Nine additional extraction wells (EW-2, EW-3, EW-4, EW-5, EW-6, EW-7, EW-9, EW-10 and EW-11) were installed in 2001, and began containment of the contaminant plumes at the former NOP site.

The goal of focused extraction, as defined in the ROD, is to rapidly remove groundwater contamination and shorten the restoration time in areas of relatively high TCE and/or RDX concentrations, when compared to hydraulic containment pumping alone (URS, 2008b). A Phase II system design (focused extraction) included 14 groundwater circulation wells designed to extract and treat contaminated groundwater at the former NOP, and re-inject treated groundwater back into the aquifer at the site. A groundwater circulation well remedial design was developed by URS (URS, 2001). Four groups of groundwater circulation wells were proposed, three groups to be placed in the Atlas Missile Area/LL 4 contaminant plume to treat TCE, and one group was proposed to treat RDX in the LL 2 contaminant plume.

As part of the focused extraction part of the remedy, two experimental or pilot groundwater circulation wells were constructed and operated beginning in 2000. Groundwater circulation well (GCW)-1 was placed north of LL 4 near monitoring well (MW)-40 downgradient of the Atlas Missile Area, and treats TCE contaminated groundwater using air stripping technology. GCW-1 remains operational at the former NOP, although flow in this groundwater circulation well has reduced from 50 gpm to about 22 gpm. GCW-2 was placed immediately downgradient of LL 2 (near MW-4 and MW-5) and treated RDX contaminated groundwater using ultra violet photolysis. However, GCW-2 was removed from service in 2008 because the concentrations at the influent were below 10 ppb, the system required constant maintenance, and the site was prone to flooding (URS, 2009).

The Phase II design, as described in the Five-Year Review Report. (URS, 2008b), will not be implemented. However, steps have been taken to perform focused extraction by initiating operation of FEW-11, originally installed as containment well, to function as a focused extraction well with extracted water being pretreated through the advanced oxidation process (AOP) treatment system before releasing the AOP-treated water to the Main Groundwater Treatment Plant for further treatment. FEW-14, located in the LL 3 plume, has been installed to extract relatively high concentrations of RDX for treatment at the Main Groundwater Treatment Plant. A third focused extraction well located in the Atlas Missile Area plume, FEW-15, is scheduled to begin operation in May 2010. Extracted groundwater from FEW-15 will be treated at the newly constructed LL 4 Groundwater Treatment Plant using air-stripping technology.

The major components of the selected remedial action for OU2, as presented in the ROD and the remedy that has been implemented to date (March 2010) include:

- **Hydraulically contain contaminated groundwater exceeding the Final Target Groundwater Cleanup Goals**

Extraction wells have been installed to contain contaminated groundwater. Groundwater is currently being extracted by eight extraction wells including EW-1, EW-3, EW-4, EW-6, EW-7, EW-9, EW-12, and EW-16. EW-13 is not currently in operation because groundwater transport simulations suggest that TCE will not migrate beyond the immediate vicinity of EW-12 in the next 5 years; however, the utility of EW-13 is being further evaluated.

An evaluation of all operational, hydraulic, and chemical data collected in 2009 indicates the remedy is meeting the requirements of the ROD and fully achieving the desired results, specifically as it relates to hydraulic containment.

Perimeter monitoring wells and residential wells within a 1-mile radius of the plume boundaries are regularly sampled as part of the yearly GMP. Groundwater chemical analyses from eastern and southern perimeter groundwater monitoring wells installed in 2006 demonstrate that there is no RDX above 2 micrograms per liter ($\mu\text{g/L}$) or TCE above 5 $\mu\text{g/L}$ downgradient of the extraction wells, and that the overall extent of contamination has not increased significantly. Furthermore, there was no evidence of

unacceptable risk to human health resulting from exposure to contaminated groundwater. Aside from the residences that already receive alternate water supply or in-home carbon treatment units, there have been no detections of site-related contaminants above action levels in any of the residential water supply wells located within a 1-mile radius of the contaminant plume boundaries.

- **Focused extraction of groundwater in areas with relatively high concentrations of TCE and explosive compounds.**

Focused extraction wells (FEW)-11, FEW-14, and FEW-15 have been installed in areas with relatively high concentrations of TCE and explosive compounds. Steps have also been taken to perform limited focused extraction of groundwater contaminants by continuing to operate a pilot study GCW-1, though it has not been formally adopted under the FFA.

Starting in the first quarter of 2008, FEW-11, originally installed as an extraction well, began functioning as a focused extraction well due to high concentration of TCE at this site. TCE-contaminated groundwater extracted from FEW-11 is pre-treated through the AOP treatment system at the AOP Groundwater Treatment Plant before being released to the Main Groundwater Treatment Plant for further polishing.

FEW-14 is a focused extraction well and was installed upgradient of EW-4 and side gradient to EW-5 in the LL 3 RDX contaminant plume to better capture the plume and remove contaminated groundwater for treatment. FEW-14 and EW-16 were installed and started up simultaneously; while EW-5 was removed from service because it was pulling the contaminant plume off its axis to the south and west, as depicted by the latest modeling interpretation. EW-16 was installed downgradient of EW-4, between EW-4 and EW-3 to provide containment of the RDX plume (EW-4 is pumping at its maximum capacity). Groundwater from FEW-14, as well as EW-3, EW-4 and EW-16 is delivered to the former NOP Main Groundwater Treatment Plant for treatment using granular activated carbon (GAC) technology to remove RDX and any minor levels of VOCs.

FEW-15 is a focused extraction well installed in the TCE contaminant plume immediately downgradient of the Atlas Missile Area. The purpose of FEW-15 is to remove TCE contaminated groundwater at relatively high concentrations from the contaminant plume to reduce its size and concentration at the former NOP. Groundwater from FEW-15 is transmitted via pipeline to the newly constructed LL 4 Groundwater Treatment Plant approximately 3 miles south of FEW-15 and co-located adjacent to the AOP Groundwater Treatment Plant. At the LL 4 Groundwater Treatment Plant, TCE will be removed from the groundwater using air stripping and vapor phase carbon technology. The treated water will be discharged to the former NOP Main Groundwater Treatment Plant for final treatment and discharge or discharged to the existing effluent line depending upon the TCE effluent levels from the LL 4 plant.

The Phase II design, as described in the Five-Year Review Report. (URS, 2008b), will not be implemented. However, steps have been taken to perform focused extraction by initiating operation of FEW-11, originally installed as containment well, to function as a focused extraction well with extracted water being pretreated through the AOP treatment system before releasing the AOP-treated water to the Main Groundwater Treatment Plant for further treatment. FEW-14, located in the LL 3 plume, has been installed to extract relatively high concentrations of RDX for treatment at the Main Groundwater Treatment Plant. A third focused extraction well located in the Atlas Missile Area plume, FEW-15, is scheduled to begin operation in May 2010. Extracted groundwater from FEW-15 will be treated at the newly constructed LL 4 Groundwater Treatment Plant using air-stripping technology.

Current groundwater optimization modeling includes a detailed analysis of focused extraction alternatives being considered. These elements are consistent with the ROD requirements and the GMP.

- **Treat all extracted groundwater using granular activated carbon adsorption, advanced oxidation process, and air stripping. GAC adsorption and AOP may be applied individually or in combination, while air stripping must be applied in combination with one of the other technologies to effectively treat explosive compounds.**

Groundwater treatment is being successfully accomplished using all three of the treatment technologies prescribed in the ROD. The former NOP Main Groundwater Treatment Plant treats influent groundwater from EW-1, EW-3, EW-4, EW-6, EW-7, EW-9, FEW-11 (following AOP treatment), FEW-14, and FEW-15 (following treatment by the LL 4 air stripper scheduled to go into full operation in May 2010) and EW-16. The LL 1 Groundwater Treatment Plant is successfully treating groundwater from EW-12 using air stripping as the influent stream contains only TCE. EW-13 is not currently in operation; its utility is being further evaluated. The AOP Groundwater Treatment Plant is successfully pre-treating groundwater from FEW-11 using a mixture of ozone and hydrogen peroxide. Pumping groundwater from EW-8 was discontinued when FEW-11 began operation due to the impact EW-8 was having on the LL 1 contaminant plume. When EW-8 is operating, the plume is pulled off its axis to the west, as depicted by the latest modeling interpretation. By operating FEW-11, contaminated water surrounding EW-08 is also treated. By pre-treating the TCE contaminated water from FEW-11 at the AOP Groundwater Treatment Plant, the concentrations from the primary source of TCE entering the former NOP Main Groundwater Treatment Plant is greatly reduced. The LL 4 Groundwater Treatment Plant will treat groundwater from FEW-15 using air stripping. GCW-1 is treating TCE-contaminated groundwater in an area containing relatively high concentrations of TCE through air stripping.

Influent concentrations of VOCs to the Main Groundwater Treatment Plant have decreased since EW-8 pumping was discontinued (in September 2007) with an average concentration of less than 1 ug/L. Explosive compound concentrations have remained constant, averaging 2.18 µg/L, since operations began. Total VOCs and

explosive compounds effluent concentrations have remained below the discharge levels throughout the operational lifetime.

Operation and maintenance of the LL 1 Groundwater Treatment Plant began in February 2006. Influent concentrations of VOCs have averaged 16.6 µg/L (TCE only) and explosive concentrations have been non-detect since operation began with the exception of an RDX detection of 0.11 J (estimated) ug/L in October 2008. Effluent concentrations, for both treated water and air have remained below the applicable discharge levels throughout the LL 1 Groundwater Treatment Plant operational lifetime.

Operation and maintenance of the AOP Groundwater Treatment Plant began in March 2008. Influent concentrations of TCE have decreased from a high of 5,800 ug/L to an average concentration of 3,330 ug/L. Influent RDX concentrations have remained constant with an average of 3.5 ug/L. The intent of the AOP Groundwater Treatment Plant is to reduce TCE concentrations from FEW-11 to an acceptable level that can be further treated by the Main Groundwater Treatment Plant. The AOP Groundwater Treatment Plant effluent concentrations for TCE have averaged 1.13 ug/L and concentrations of RDX have averaged 2.70 ug/L since operations began. The effluent from the AOP Groundwater Treatment Plant is conveyed to the Main Groundwater Treatment Plant where the remaining RDX and TCE concentrations are removed prior to discharge (polishing).

- **Dispose of the treated groundwater by beneficially reusing it or through surface discharge.**

This portion of the remedy is in place and functioning effectively. Two surface water outfalls are available for discharge of treated groundwater. Treated groundwater discharges into Wahoo Creek at an average monthly flow rate of approximately 1,880 gpm, and into Clear Creek discharges at an average monthly flow rate of approximately 470 gpm based on data collected in 2009 from the Main Groundwater Treatment Plant. Water is also being beneficially reused by the ARDC for irrigation purposes and by two local residents, one to maintain the level in a privately-owned pond and one for irrigation. The enforceable effluent discharge limitations established by NDEQ (NDEQ, 1998) are provided in the Main Groundwater Treatment Plant Operations and Maintenance Manual.

- **Provide a potable water supply to local groundwater users whose water supply contains RDX exceeding the HA and/or TCE exceeding the MCL.**

This portion of the remedy is in place and functioning effectively. Five residential wells are included in the program based on current and/or historic detections of RDX greater than 2 µg/L and/or TCE greater than 5 µg/L in their residential water supply wells. For these residences, one residence is provided with bottled water; two residences have wells equipped with GAC treatment units; and two residences are provided with bottled water and their wells are equipped with GAC treatment units. Aside from the residences that already receive bottled water or have a GAC treatment

unit installed, no site-related contaminants have been detected above action levels in any of the residential water supply wells located within a 1-mile radius of the contaminant plume boundaries.

In an effort to determine whether any new residences or water users are present in the area and may be impacted by contamination, the following activities are performed semiannually:

- A survey of the state of Nebraska Well Registry Database for any new potable water wells in the vicinity of the former NOP;
- A review of real estate transactions in the area; and
- Visual inspections of the local area to determine if any new potable water wells have been installed.

In addition to the state of Nebraska Well Registry Database surveys, a physical inspection of the former NOP is routinely performed by the operators of the Main Groundwater Treatment Plant and by CENWK contractor personnel during routine monitoring well and water supply well sampling events. The physical inspection is intended to identify new construction sites or activities that may indicate the installation of new potable water wells within or downgradient of the groundwater plumes. Based on chemical sampling results and visual inspections of the local area, no residents are known to be consuming drinking water that contains contaminants exceeding the OU2 Final Target Groundwater Cleanup Goals.

- **Monitor the groundwater elevations and water quality.**

This portion of the remedy is in place and functioning effectively. Groundwater level information and groundwater quality information is collected as part of the remedial system(s) operation and maintenance under the site-wide GMP. There are currently 70 residential/water supply wells and 258 groundwater monitoring wells that are sampled and analyzed either quarterly, semi-annually, or annually as part of the GMP. This includes perimeter monitoring wells, as well as residential wells, within a 1-mile radius of the plume boundaries. Groundwater chemical analyses from eastern and southern perimeter groundwater monitoring wells, installed in 2006, demonstrate that RDX levels are below 2 µg/L and TCE levels are below 5 µg/L downgradient of the extraction wells.

- **Excavate and treat explosives-contaminated soil which could act as a source of explosives contamination of groundwater and which does not meet the OU 1 excavation criteria.**

This portion of the remedy is in place and complete. Soils which could potentially act as a source of explosives contamination to groundwater were excavated and incinerated on site during implementation of the OU1 remedial action completed in 1997 (OHM, 1998). No further action for explosives-contaminated soil is required for OU1 and OU2.

Additionally, groundwater optimization modeling to evaluate alternatives to design and install focused extraction wells, is being conducted as required within the ROD.

Optimization of the OU2 groundwater containment and remediation system will continue throughout the life of the remediation effort. Optimization efforts may include:

- Installation of new extraction or focused extraction wells to improve the efficiency and/or timeliness of the remediation effort;
- Decommissioning of extraction or focused extraction wells that are no longer beneficial to the remediation effort;
- Modification of groundwater removal rates and schedules to improve the efficiency and/or timeliness of the remediation effort;
- Modification to the treatment system to include improvements in treatment technologies or to decommission portions of the system as remediation is achieved; and
- Modifications to the GMP to more effectively reflect site conditions.

2.3.3 Operable Unit 3

CENWK completed field investigations as part of the RI of other potential waste sites not addressed in OU1 or OU2 (Woodward-Clyde, 1996a and 1996b). These other sites are collectively referred to as the OU3 sites. During the RI portion of the study, over 2,000 individual soil, water, sediment, and surface wipe samples were collected from 20 separate investigation areas consisting of former waste disposal areas, burning grounds, proving grounds, demolition grounds, bomb production buildings, igloo storage areas, several underground storage tanks, an ammonium nitrate plant, and surface water bodies. Field activities included soil, sediment, groundwater, surface water and wipe sampling; field screening for explosive compounds; a hazardous waste inventory of all former NOP buildings; surface geophysical surveys; OE waste avoidance surveys; and physical habitat assessments. Field sampling was performed as part of Phase I (January through March, 1995), and Phase II (May and July, 1996) investigations. The results of the Phase I Investigation were presented in a Draft Final Preliminary Data Package Report (Woodward-Clyde, 1996a) issued February 1996, and were used in determining that additional sampling was required (Phase II study) to meet the OU3 Data Quality

Objectives. The results from both the Phase I and Phase II studies were presented in the RI Report (Woodward-Clyde, 1996b). The OU3 RI Addendum (URS, 2000a) and the Baseline Risk Assessment Report (URS, 2000b) were prepared following additional sampling at the Proving Grounds, Potential Landfill Area, North Burning Grounds, Northeast Boundary Area, NRD Reservoir, and at Johnson, Clear, and Silver Creeks.

Based on the findings of the RI and Baseline Risk Assessment, antimony was determined to be the major chemical necessitating cleanup for OU3. Three areas were identified for antimony contaminated soils removal; the LL 2 Paint Operations Area, LL 4 Paint Operations Area, and the Potential Landfill Area. The December 2000 Feasibility Study (FS) (URS, 2000c) identified all the essential elements of the Engineering Evaluation/Cost Analysis (EE/CA) process, including Removal Action Objectives, Screening Criteria, and Removal Action Alternatives for cleaning up contaminants, as part of OU3. Based on an evaluation of the various alternatives presented in the FS, excavation with off-site disposal was recommended as the preferred remedial alternative because it would achieve substantial risk reduction by removing contaminated soils from the former NOP and allow for safe management of the soils. In February 2007 an EE/CA Addendum was issued to the OU3 FS, formalizing the conversion of the FS to an EE/CA (URS, 2007). The OU3 Action Memorandum was finalized in December 2007 (USACE, 2007). The Action Memorandum presented the selected Non Time Critical Removal Action for the OU3 areas: LL 2 Paint Operations Area; LL 4 Paint Operations Area; and the Potential Landfill Area. The selected Removal Action was excavation and off-site disposal of soils that had elevated concentrations of antimony. The OU3 removal action was conducted in 2007/2008. Approximately 1,060 cubic yards of soil was excavated from the three areas and disposed off site. Additionally approximately 3 cubic yards of asbestos-containing material mixed with soil were also excavated and disposed off site. The three sites were backfilled and restored (Kingston, 2008). Additional investigations planned for OU3 include a RI that is planned for 2010.

2.3.4 Ordnance and Explosives Areas

The OE Areas include potential sources of explosives contamination and unexploded ordnance located at the former NOP. Previous investigations related to OE at the former NOP include an archives search by the U.S. Army Toxic and Hazardous Materials Agency (now the Army Environmental Center) in 1983; a Preliminary Assessment of Ordnance Contamination in 1991 (TCT-St. Louis, 1991); an OU3 site visit in 1994; an investigation of the suspected chemical warfare materials (CWM) burial at Site 8 in 1994; a geophysical investigation in 1995; an EE/CA in 1996; a Removal Action for Site 5 in 1997; the removal and destruction of two partially expended bomblets from the western shore of the NRD Johnson Creek Reservoir in 1999; an OE Recurring Review site visit in 2001; and an OE Recurring Review site visit in 2007.

The OE Recurring Review (USACE, 2010), conducted in June 2007, included a review of existing documentation, identification and review of current and new information, a site visit, and stakeholder meetings. A site visit was conducted to visually confirm the physical condition of the site, and to verify current land use, site accessibility, and other factors affecting public exposure to ordnance risk. Local community members,

community leaders, and regulators were interviewed to identify their concerns regarding OE response actions. The OE Recurring Review examined the twelve potential sites identified in the 1991 Preliminary Assessment and the Potential Landfill Area, identified during the 1999 OU3 RI field activities. With the exception of Site 5, Site 6, Site 8 and the Potential Landfill Area, all of the sites were classified as No DOD Action Indicated (NDAI) based upon archive search reports, site visits, and investigations. Areas of concern identified and observed during the OE Recurring Review include:

- Demolition Grounds (Site 5- Culvert Area and Site 6 – Turnout Area)
- Landfill Area, Former Wastewater Treatment Plant (Site 8)
- Potential Landfill Area

Demolition Grounds (Site 5- Culvert Area and Site 6 – Turnout Area)

A Removal Action was conducted in May 1997 at the Culvert Area (Site 5). Approximately 6 acres of land were cleared of surface and subsurface OE to a depth of four feet (CMS, 1997). Thirteen pieces of inert OE were uncovered during the excavations. The inert OE was located in the upper two feet of the site; no anomalies were located from two to four feet in depth. In October 1997, a Statement of Clearance was signed by CENWK, which recommended the cleared parcel on Site 5 be used for any purposes that do not involve intrusive activities below four feet (USACE, 1997).

The Turnout Area (Site 6) is located in the southwest corner of the former NOP. During the 1991 Preliminary Assessment aerial photography indicated five possible craters in this area. A complete magnetometer and metal detector survey (TCT-St. Louis, 1991) was conducted for each crater and any ferrous contacts were investigated by hand excavation. One contact turned out to be a M51 Series Point Detonating Artillery Fuse. No other unexploded ordnance or ordnance debris was located during the survey. The ARDC headquarters facility was constructed in close proximity to the assumed location of Site 6. No OE was discovered during previous investigations or during the large excavations for the new facility. The craters were also investigated during the OU3 RI. Surface geophysics was used to try to identify any anomalies to focus soil sampling locations. Soil samples for explosive compounds were collected and none were found at concentrations that warranted any further action.

During the 2007 site walk, attendees walked the creek bed adjacent to Site 5. In the bank of the creek two pieces of munitions debris were located. One item was a partial base plate and the other appeared to be a spent grenade fuse. The munitions debris was found outside of the original surface clearance area and was discovered approximately 15-20 feet below the ground surface, protruding from the creek bank, adjacent to Site 5. Due to this finding since the last OE Recurring Report, a Site Investigation will be performed to assess these new findings.

A review of safety hazards revealed negligible risk and unlikely probability that an OE-related accident would occur under current operating conditions. The May 1997 Removal Action involved clearing approximately six acres of the site of surface and subsurface OE to a depth of four feet. As no land use or accessibility changes were identified during this OE Recurring Review, this action remains protective.

Landfill Area, Former Wastewater Treatment Plant (Site 8)

The former Landfill Area at Site 8 is the suspected burial location of CWM, specifically mustard agent. The 1996 EE/CA stated that insufficient evidence and inaccurate documentation exists regarding the potential CWM burial and classified Site 8 as NDAI for OE. The potential CWM disposal area was not identified during the OE Recurring Review site visit. A security fence was installed around the landfill near the suspected CWM burial location in 1994 (Dames & Moore, 1996). Also in 1994, a site visit conducted by TCT-St. Louis on behalf of CENWK resulted in a former Civilian-in-Charge at the former NOP pointing out what he remembered as the burial location for the CWM. At that time the location was outside the fence line at Site 8. In 2009 CENWK moved the fence to encompass the suspected CWM burial location pointed out by the former Civilian-in-Charge.

Groundwater monitoring wells were installed downgradient of Site 8 in 1992. Samples from these wells have found no detections of thiodiglycol, a degradation product of mustard agent. Sampling of monitoring wells near the landfill was re-initiated in June 2007. These wells were sampled for three indicator parameters for mustard agent; thiodiglycol, 1,4-oxathiane, and 1,4-dithiane. Results from all wells sampled were non-detect for the three mustard agent indicating parameters.

Potential Landfill Area

During the 1999 investigation for the OU3 RI, two fragments of incendiary bomblets were found along the western shore of the NRD Johnson Creek Reservoir when the reservoir was lowered to accommodate field work. The partial bomblets were destroyed in accordance with unexploded ordnance policy and procedure. During the 2001 OE Recurring Review, the reservoir was down several feet due to dry seasonal conditions. Empty booster caps, an inert bomb fuse, and miscellaneous trash were discovered on the shore of the NRD Johnson Creek Reservoir in the potential landfill area (USACE, 2002). During the OE Recurring Review 2007 site visit, recent rainfall had elevated the reservoir water level so that the shoreline, where empty booster cups, an inert bomb fuse, and other miscellaneous trash discovered during the 2001 OE Recurring Review site visit, could not be evaluated. In 2005 a base plate was found by an NU representative while conducting RI activities. The finding of munitions debris has been the only OE-related incidence at the Potential Landfill Area since the 2001 OE Recurring Review. Warning signs and a gate at the entrance to the Potential Landfill Area warn of potential hazards in the area. The signs were installed by NU with monetary assistance from USACE, but were not recommended by DOD. A review of safety hazards conducted as part of this OE Recurring Review revealed negligible risk and an unlikely probability that an OE-related accident would occur under current operating conditions. A Supplemental Investigation will be performed in the Potential Landfill Area to assess the findings of munitions and explosives of concern in 1999 and during the 2001 OE Recurring Review site visit.

3.0 COMMUNITY BACKGROUND

Section 3.0 provides a description of the former NOP area community, a history of community involvement, key community concerns, and CENWK concerns.

3.1 Community Description

The former NOP is situated in the Todd Valley and Platte River Valley in Saunders County, Nebraska. Saunders County covers 760 square miles and has 15 incorporated communities including: Ashland, Cedar Bluffs, Ceresco, Colon, Ithaca, Leshara, Malmo, Mead, Memphis, Morse Bluff, Prague, Valparaiso, Wahoo, Weston, and Yutan. Grains such as corn, soybeans, sorghum, and winter wheat are the principal types of crops grown in the county. Raising cattle and swine is another main source of income. Farming is the primary employment in Saunders County (16.2%) followed by local government (12.8%) and construction (11.4%). Saunders County also has some light industry. Estimates from the Bureau of Census placed Saunders County's population at 20,184 in 2007 (NU Rural Initiative, 2010).

Historic structures and memorials reflect Saunders County residents' national pride. The Saunders County Courthouse, located in Wahoo (the County Seat) was constructed in 1904 and is listed on the 1990 National Register of Historic Places. It features a marble stairway and murals depicting county pioneers. The residents of Saunders County have erected a torpedo memorial on the courthouse lawn to the United States USS Wahoo, the decorated World War II submarine. The Eternal Flame Memorial erected in 1969 is also located on the courthouse lawn. Historical information provided by the County Clerk's office indicates that the establishment of the Ordnance Plant at Mead during World War II brought a flourish of new activity to the area. At its peak nearly 5,000 people were on the payroll at the plant.

The incorporated towns in Saunders County closest to the former NOP are Wahoo, Mead, Memphis, Ithaca, Yutan, and Ashland. These towns are briefly described below.

- **Wahoo**, the county seat of Saunders County, is home to approximately 3,942 residents and is located approximately 5 miles west of the former NOP. Wahoo is governed by a mayor-council with six council members and the mayor elected to a four-year term. "The Wahoo Newspaper" has been covering the Saunders County area since 1886. Wahoo is home to the Saunders County Historical Society which has preserved many artifacts and buildings from the area's early settlers. Wahoo is also the location of the annual Saunders County Fair.
- **Mead** is an agricultural community of approximately 564 residents situated one-half mile north of the former NOP. As a quiet bedroom community, it has become a favorite place for retirees. The village is governed by a Village Board consisting of the Board Chairman and four trustees.
- **Memphis** is a family-oriented, rural community of approximately 106 residents situated approximately two miles south of the former NOP. Most of the residents who work are either farmers or they are commuters to Lincoln or Omaha. The village is governed by a Village Board and Board Chairman.

- **Ithaca** is a community of approximately 168 residents situated approximately two miles west of the former NOP. The Village of Ithaca is a quiet, bedroom community and is home to a number of retirees. The village is governed by a five member Village Board and a Board Chairman.
- **Yutan** is located approximately three miles northeast of the former NOP and has a population of approximately 1,216 residents. Yutan is governed by a Village Board and Board Chairman. The largest portion of the population of Yutan is retirees.
- **Ashland** was the site of the first pioneer settlement in Saunders County. It was also the first county seat until 1873. A Mayor and City Council govern this town of approximately 3,680. In the past, Ashland was largely an agricultural town; today, however, most residents commute to Lincoln, Omaha, or the nearby state park for work. The town holds annual festivities such as a rodeo and Stir-Up Days. The longest-running business in the community is “The Ashland Gazette”, which was first published in 1879.

3.2 History of Community Involvement

Public interest in the former NOP has existed for a number of years. Initially, the Lower Platte North NRD attempted to bring the site to the attention of DOD. Later, NRD contacted U.S. Representative Douglas Bereuter about possible hazardous contamination at the site. CENWK was commissioned to do a confirmation study in 1987. This activity resulted in relatively steady press coverage for the next five months.

A public meeting was held at the ARDC in Mead in July 1989 to discuss the progress of the ongoing study at the site and to give the community a chance to voice their concerns and offer comments. In June 1990, CENWK's Colonel John H. Atkinson held another public meeting in Mead to offer an update of the Site Investigation. Though no definitive results were available at that time, Atkinson was leaving the service and wanted to give the community an update before the transition occurred.

3.2.1 Community Relations Plans and Public Involvement Plans

The first Community Relations Plan (SEC Donohue, 1992) for the former NOP was approved by USEPA and NDEQ in May 1992. This document listed contacts and interested parties throughout government and the local community and identified issues of concern. It also established communication pathways to ensure timely dissemination of pertinent information. A second Community Relations Plan (Woodward-Clyde, 1997a) for the former NOP became a draft final document in January 1997. The second Community Relations Plan was updated as a PIP in 2008 (URS, 2008a). Seven interviews and 26 surveys were completed as part of the 2008 PIP.

To proactively assess and improve the existing level of communication, CENWK requested assistance from the Corps' Institute for Water Resources Conflict Resolution and Public Participation Center in 2009. In response, the Institute contracted CDM to conduct an independent and impartial assessment of the communication issues related to the site. CDM, as part of the process, interviewed 43 site stakeholders and five past

project managers or other CENWK personnel who had worked on the site between 2003 and 2009. CDM compiled the information and provided recommendations in a *Situational Assessment Report* (CDM, 2009). The *Situational Assessment Report* has been provided in electronic form in Appendix A and is also located on CENWK's website at <http://www.nwk.usace.army.mil/projects/mead/History/MeadSAReport.pdf>

This PIP has been produced to update the 2008 PIP to better reflect current site conditions and to incorporate information from the *Situational Assessment Report*.

3.2.2 Technical Review Committee, Restoration Advisory Board, and Open House Events

In 1993, a Technical Review Committee was established to ensure that the cleanup of the former NOP would be carried out in the best interests of the communities involved. The committee reviewed and commented on all official plans and documents, and advised the appropriate agencies before a final decision was made by CENWK. The Technical Review Committee was converted to a RAB in 1997 to improve public participation by involving community members in the restoration decision making process. The first RAB meeting for the former NOP was held in January 1997. The RAB was co-chaired by a member of the local community and the CENWK project manager. For many years the RAB meetings were well attended and relationships among members were congenial; however, in later years the meetings had lower attendance as many people chose not to attend because of disputes and disagreements that arose. The last formal RAB meeting was held in October 2007. CENWK has communicated to the community that RAB meetings will be held only under the condition that the meetings are facilitated and formal operating procedures are adopted. The community RAB members declined CENWK's offer of a facilitated meeting. Transcripts of RAB meetings are maintained on the project website and in the information repository in the Mead Public Library since June 2005.

Since the last RAB meeting in October 2007, open house events have been held quarterly on the third Wednesday of January, April, July, and October to provide local landowners and other interested parties with up-to-date information regarding site activities. CENWK and subcontractor project staff, representing several disciplines including geology, hydrogeology, and chemistry, are available during these meetings to answer questions and provide technical support. Dates and locations of open house events are published in local newspapers, posted at gathering places (groceries and gas stations), posted on the former NOP website, included in the quarterly newsletter, and mailed to all interested parties on CENWK's mailing list. At each open house there is a sign-in sheet documenting attendance. The sign-in sheets also provide a means by which CENWK's mailing list is updated.

3.2.3 Public Comment Period

Public comment periods are required at certain steps of the CERCLA process. Legal notices of the public comment periods and corresponding public meetings are advertised in local newspapers and other local media. Technical representatives from CENWK and

other agencies attend the meetings to address questions and concerns regarding all aspects of the site restoration activities.

The following public comments periods are expected to occur within the next three years:

- **OU3** - Proposed Plan, January 2013
- **OU3** - ROD, August 2013

3.3 Key Community Concerns

For the *Situational Assessment Report* (CDM, 2009) interviews were conducted with 43 site stakeholders, including local area residents and five agency representatives, and with five CENWK personnel who had worked at the site between 2003 and 2009. CDM used these interviews to determine and gauge community concerns and to provide suggestions to CENWK for improving communication at the former NOP. The following text is a summary of the results of the *Situational Assessment Report* (CDM, 2009). An electronic copy of the full *Situational Assessment Report* can be found in Appendix A of this PIP.

3.3.1 Summary of Interview Process for Stakeholders

Forty-three interviews of stakeholders were conducted by CDM over the phone. To start the interview process, letters were sent to all names on the former NOP site mailing list (approximately 130 names) explaining the reason the interviews were to be conducted, presenting the basics of the process that would be used, and alerting the reader that they might receive a phone call about the interviews. If a phone number was not available with the address, a self-addressed stamped envelope was included to obtain contact information. Additionally, a handout was prepared and dispensed at the January 2009 open house to announce the upcoming interviews and solicit volunteers for the upcoming interviews. No one at the session signed up to be interviewed.

After the mailing, multiple attempts were made to contact individuals. Once potential interviewees were reached by phone and agreed to participate, the interviewee was asked if the interview could be conducted at that time or if another time would be more convenient. Two people were added to the phone list at the recommendation of a neighbor.

Interviews covered a set list of topics with the interviewees allowed to talk as long as they wished. Additionally, interviewees were allowed to take the conversation in whatever direction they chose. Interviews were conducted between February 23 and March 25, 2009. During that time 100 individuals were called, contact was made with 52 and 43 interviews were conducted.

Topics covered during the interview included:

- **General background.** How long they have lived in Saunders County? Do they live near the site? Do they have kids at home?
- **Familiarity with the site.** Had they or any of their family members worked there? What did they know about the site?
- **General level of concern** about the site in comparison to other issues in their life. For instance, three examples might be: high (worry about it daily), medium (worry about it occasionally), or low (almost never think about it).
- **History of interactions with the Corps or their contractors.** Have the interviewees' wells been sampled? Have they attended meetings? Have they had other types of interactions? How did they feel about those interactions?
- **Concerns (if any) regarding the site.** Examples could include contamination (soil and groundwater), property values, community participation in the process, water supply, etc.
- **Opinion on the work being done by the Corps at the site.** Do they have an opinion? Could they say if it was positive, neutral, negative, or other?
- **Satisfaction with the level of information they are currently receiving on the site.** Are they getting the information they need? Too much? Not enough?
- **Best way to get information to them about the site.** Do they prefer one method or a variety? Is there a resource they trust more than others?
- **Satisfaction with current level of involvement.** Do they wish they could get more involved? Are they happy with their current level of involvement with what's going on at the site?
- **Attendance at site meetings.** Have they attended site meetings? If so, which ones and how many?
- **Suggestions for improving site meetings.** Is there anything that could be done to make the site meetings more useful or appealing?
- **Other thoughts or comments.** Do they have any additional thoughts on improving communication in general at the site?

After the interviews were completed, the findings were compiled for each topic area to assess trends and to protect the privacy of the interviewees. Care was taken to ensure that specific responses were not attributed to an individual.

3.3.2 Summary of Stakeholder Interview Results

Results of the Stakeholder interviews were summarized in the *Situational Assessment Report* (CDM, 2009). The summary table is shown below. The summary paragraph from the *Situational Assessment Report* for each topic is included in this section. Specific comments from the interviews can be found in the *Situational Assessment Report* present in Appendix A.

**Table 3.3-1 Summary of Responses to Interview Topics
Former Nebraska Ordnance Plant, Mead, Nebraska**

Topic	Summary
General background	84% local residents, 16% other
Familiarity with site	100% were familiar, some said they were very familiar
Level of concern	19% low, 59% medium, 22% high
Past interactions with Corps or contractors*	60% positive, 23% neutral, 17% negative 58% wells sampled, 17% attend meetings, 36% other
Concerns about the site*	52% groundwater, 74% multiple, 26% property values, 26% health, 16% none
Opinion of the work the Corps is doing*	53% positive, 26% negative, 21% mixed, 15% none
Satisfaction with amount of information provided	61% happy, 39% want more
Preferred source of information*	59% written materials, 41% meetings, 24% e-mail, 24% other
Satisfaction with current level of involvement	88% happy, 12% would like to be more involved
Familiarity with meetings	68% have attended, 32% have not

*Interviewees could provide more than one response to this topic

General Background - Most of the area residents interviewed were individuals who had lived on their properties for most, if not all, of their lives. These people generally made part or all of their living off of agricultural pursuits on their land. Very often, the residents' property had been in their family for many generations; if the interviewee did not live on the property, their parents still did. Many residents were senior citizens. Only seven of the interviewees lived elsewhere. Eight of the people interviewed were current or former community representatives of the RAB; five were agency representatives (non-CENWK).

Familiarity with the Site - All of the people interviewed indicated that they had some familiarity with the site, and some considered themselves to be very familiar.

General Level of Concern about the Site - Almost 60 percent of the people who responded had a moderate level of concern about the site. The remainder was evenly divided between having a low or high concern.

Past Interactions with the Corps of Site Contractors - Most of the people who responded had interacted with CENWK or their contractors in one form or another, primarily through well sampling on their property or by attending public meetings. More than 80 percent of the people who responded reported the interactions as positive or neutral. Almost 60 percent of the people interviewed had water supply wells that were sampled by CENWK contractors. About 17 percent of the interviewees said their interactions with CENWK had primarily been through attending meetings or other events.

Concerns about the Site - When the topic of concerns was raised by CDM, about 85 percent of the people interviewed said that they had specific concerns. Many people had a variety of concerns. The most commonly expressed concerns were groundwater contamination, property values, and health effects. More than 50 percent of the people interviewed said that groundwater was their primary concern at the site. Among those people, the primary concern was the MUD wells. Almost 75 percent of the people interviewed said that they had multiple concerns regarding the site. Many people brought out their concerns in conversation without being questioned. If the interviewees were not talkative or were asked a question about their concerns and hesitated to respond, they were provided some example concerns that other residents had listed (i.e., groundwater contamination, soil contamination, property values, community participation in the process and water supply). Human health issues were not mentioned by CDM as a potential concern, yet they were raised by 26 percent of the interviewees. Property values were also mentioned by 26 percent of those who had concerns.

Opinion of Work being Conducted by the Corps - About 60 percent of the people interviewed expressed an opinion (positive, neutral, or negative) on the work being conducted by CENWK. Most of these people (53 percent) indicated they had a positive opinion of the work being conducted by CENWK. Less than 20 percent reported a negative opinion. Four people reported both positive and negative feelings. The remainder had no opinion.

Satisfaction with Level of Information Received - Most of the people interviewed provided a response to the question of whether or not they felt they were satisfied with the level of information they were receiving. About 60 percent of the people interviewed indicated that they were satisfied with the level of information they were receiving. Some interviewees indicated that the situation had improved over previous years. The remainder of the interviewees indicated that they would like to receive additional information about the site or that the type of information received was not appropriate. No one interviewed said they would like to receive less information.

Preferred Way to Get Information - Most people interviewed had opinions on the best way to get information about the site to residents and other stakeholders. The most often cited options were written materials (59 percent) and meetings (41 percent). About 25 percent of the people suggested using the Internet (either Web sites or e-mails). However, many people thought that option would not work for them. Many people said they preferred a mix of options.

- **Written Materials** - Written materials were the most commonly cited communication tool in the interviews. Almost 60 percent of the respondents thought that letters and fact sheets were an excellent way to communicate. This was especially true for people who had mobility or hearing problems or who had conflicts with the meeting times. Several interviewees said that it is important that the materials are written so that they are easily understood by the target audience, and many people felt that CENWK materials were understandable.

- **Meetings** - About 40 percent of the people interviewed cited RAB meetings as a useful tool in communicating information about the site. Several people indicated that they were aware of the RAB meetings but preferred to get their information in other ways because of difficulty getting to the meetings.
- **Internet or E-mail** - People were split on their endorsement of e-mail as an effective communication method. About 25 percent of those interviewed were in favor of communicating via e-mail. They were generally individuals who worked in office environments and relied on e-mail in their daily duties. Those with the strongest dislike of e-mail were generally retired, or worked in occupations that did not use electronic mail (e.g., homemaker or farmer).
- **Other** – Various other methods of communication including radio and other media, the library, and presentations to local groups were cited as effective tools by about 25% of the people interviewed.

Interest in Maintaining Current Level of Involvement - Almost 90 percent of the people interviewed were interested in maintaining their current level of involvement with activities at the site. Many of these people had other demands on their time and didn't feel that they could be more involved. Of the people who were not happy with their current involvement, most wanted to become more involved.

Familiarity with Various Meetings - Almost 70 percent of the people interviewed had attended RAB or other meetings.

Suggestions for Improving Meetings - Many people felt strongly that there should be RAB meetings and open houses. Comments on how to improve the meetings most often referred to meeting length and meeting format. Also addressed were meeting frequency, location, materials, documentation, and follow-up.

- **RAB Meeting Length** - The majority suggested that the RAB meetings were much too long, and that this made them less attractive to the average audience member. People generally believed that meetings should not last more than two hours. One person suggested breaking the meeting into segments to allow people to leave after their area of interest was addressed. Several people suggested that they start earlier in the evening, perhaps at 6 P.M.
- **RAB Meeting Format** - Many people expressed concern that the RAB meetings seemed to be dominated by specific people. They felt this was detrimental and that it discouraged people from attending. The majority felt everyone deserved a chance to speak, but that some form of meeting order and control had to be established. Suggestions included setting an agenda in advance and using a meeting facilitator to allow people to speak in an orderly manner.
- **Meeting Frequency, Location, Materials, Documentation, and Follow-Up** – Several people express a desire for more (quarterly) RAB meetings. Comments were also expressed on meeting locations, meeting room size and CENWK responses to questions.
- **Open House Events** – Responses were varied.

Other Thoughts or Questions on the Site - This was an open ended question that was used to close the interviews. It was a last chance for people to provide information on something that was important to them. Many people reiterated concerns that they had expressed at other points in the interview. Comments, grouped loosely by topic, included:

- MUD wells;
- Location and migration potential of plume;
- Communication;
- Information provided;
- Trust; and
- CENWK staffing.

3.4 U.S. Army Corps of Engineers' Interviews

For the *Situational Assessment Report* (CDM, 2009), CDM also interviewed five CENWK personnel who had worked on the former NOP project to gather information on site background, issues, and past outreach. CDM felt this information was necessary to develop suggestions for future outreach activities at the site. Those interviewees said the most contentious issue at the site was the installation and pumping of the MUD wells, and that those wells seemed to be the driver for most disagreements between CENWK and the community RAB representatives.

CENWK interviewees thought their work at the site had been good and that they were meeting their responsibilities in containing and monitoring the contaminant plumes. CENWK interviewees believed that pumping the MUD wells did not threaten the containment of the plumes. CENWK personnel also felt that the public did not understand that decisions and assumptions at environmental sites often have to be modified as new data are received. They felt that when such changes needed to be made at the site, they had sometimes been made to look like mistakes that were made by CENWK, rather than modifications necessitated by new data.

CENWK personnel interviewed believed that CENWK's relationship with the community at large was good, but that there was not much independent information to back that up. They said that relatively little time or money had been invested in outreach, and that various outreach methods had been tried in the past, but not in a consistent or long-term manner. Prior to the MUD well issue, CENWK personnel interviewed felt the relationship between CENWK and the community RAB representatives had been good. However, CENWK interviewees felt that the current relationship was unworkable and said that efforts to improve that relationship (e.g., hiring a facilitator) have been rejected. They believed suspending the RAB meetings was a good idea. CENWK interviewees felt there was little hope for improving the situation given the response received to date from the current RAB representatives.

4.0 PUBLIC INVOLVEMENT ACTIVITIES AND TECHNIQUES

The following three subsections provide descriptions of public involvement goals, objectives and activities to meet these goals and objectives.

4.1 Public Involvement Goals

Federal regulations require public involvement in the cleanup decision-making process. In addition to meeting regulatory requirements, the overall goals of this PIP include:

- Meet the community's needs for information, interaction, and communication; and
- Build trust between all stakeholders.

CENWK considers the PIP an integral part of the remedial activities at the former NOP. This PIP will be used to facilitate important communication links between CENWK, and all stakeholders, including local municipalities, the news media, local citizens, and property owners and their tenants, both nearby and adjacent to the former NOP.

4.2 Public Involvement Objectives

Based on the input received during the community interviews and open house events, CENWK has developed site-specific public involvement objectives which focus on communication between CENWK and the community during the containment and remediation of the groundwater contaminant plumes, and other cleanup actions. The objectives are as follows:

- Provide information to the community and interested parties through open house events, newsletters, fact sheets, information repository, and project website;
- Interact and communicate with the community and interested parties during open house events, through outreach to local groups, and through the interaction between CENWK and local land owners; and
- Build trust between all stakeholders by addressing community and interested party concerns in a thorough and timely manner.

4.3 Public Involvement Activities

CENWK will utilize the following activities to meet the goals and objectives of the public involvement program. General approaches, as well as specific suggestions which reflect the responses of the interviewees and the feedback provided in open house events, are provided below. While many of the activities are required by federal regulations, some of the activities are designed to provide the additional support necessary to achieve CENWK overall public involvement goals for the former NOP.

Many interviewees noted several means in which the public wanted to receive information related to the former NOP clean-up activities. The majority of the interviewees wanted to obtain information through written materials and meeting. About one quarter of the interviewees suggested the internet through email or websites.

It should be noted that many interviewees; however, thought the internet would not meet their needs. Most people preferred a mix of methods. It is important to match the communication method with the need and the issue. Consequently, a variety of meeting and information formats will continue to be implemented related to the former NOP activities.

- **Send Quarterly Newsletters** – CENWK will continue to send newsletters on a quarterly basis. Newsletters will be used to announce meetings and open house events, and to inform interested parties about ongoing efforts of the groundwater containment and remediation of the former NOP.
- **Conduct Open House Events** - CENWK will continue to hold open house events on a quarterly basis. Open house events will be held either on the former NOP or at nearby venues typically from 4-8 P.M. Project personnel will be available to answer individual questions, look up sampling results, or assist community members in finding other relevant information. Typically a variety of handouts and displays will be available. Brief informational presentations on site progress and events may be given at open house events. Open house events and any presentations will be announced in the quarterly newsletters, on the project website, through mailings to interested parties, posted at local gathering places, and through press releases to local newspapers.
- **Conduct Presentations to Local Groups** – CENWK will, when possible, conduct presentations to local groups requesting information.
- **Conduct Required Public Meetings** - CENWK will continue to hold public meetings, required by CERCLA and in accordance with the FFA, prior to public comment periods. Public comment periods are expected to occur within the next three years for the OU3 Proposed Plan and the OU3 ROD.
- **Provide Information to Directly-Affected Parties about Field Activities, Sampling, and Test Results** - CENWK will continue to contact directly-affected parties and receive permission prior to conducting any field activities or sampling events. CENWK communicates during sampling events through direct communication with the affected parties or through door tags that let the affected parties know the status of sampling their well. Letters containing sampling results will be mailed to directly-affected parties before the next round of residential well and groundwater monitoring sampling is conducted or upon the validation of data collected under separate field investigations (i.e., direct-push sampling).
- **Provide Handouts and Fact Sheets** - CENWK will continue to expand and update the current library of Fact Sheets on the former NOP. Fact Sheets are available at the Mead Public Library and the former NOP Web Site. New or updated Fact Sheets will be mailed to all interested parties on the CENWK mailing list. Handouts will be prepared for open house events as needed.

Current Fact Sheets available include:

- Background Fact Sheet
 - Containment Evaluation Fact Sheet (January 2010)
 - Monitoring Fact Sheet (October 2008)
 - Load Line 1 Plume Fact Sheet (June 2008)
 - Mustard Agent Fact Sheet (April 2007)
 - OU3 Fact Sheet (March 2007)
 - Ordnance and Explosives Fact Sheet (March 2007)
 - Advanced Oxidation Process Safety Fact Sheet (January 2007)
 - Surface Water Risk Fact Sheet (January 2007)
- **Address Issues of Concern** – CENWK will take an active role to ensure that stakeholder concerns are addressed in a timely manner using the most appropriate communication methods, such as quarterly project fact sheets and/or public meetings. CENWK will continue to have project personnel available at open house events to answer questions and address issues of concern.
 - **Exchange Information Through the RAB** - The RAB for the former NOP is currently suspended. For many years the RAB meetings were well attended and relationships among member were congenial; however, in later years the meetings had lower attendance as many people choose not to attend because of disputes and disagreements that arose. The last formal RAB meeting was held in October 2007. CENWK has communicated to the community that RAB meetings will be held only under the condition that the meeting is facilitated and formal operating procedures are adopted. The community RAB members declined CENWK's offer of a facilitated meeting.

The purpose of a RAB is to provide: (1) an opportunity for stakeholder involvement in the environmental restoration process; (2) a forum for the early discussion and continued exchange of environmental restoration program information between CENWK and the community; (3) an opportunity for RAB members to review progress, participate in a dialogue with, and provide comments and advice to CENWK's decision makers concerning environmental restoration matters; and (4) a forum for addressing issues associated with environmental restoration activities. RABs are typically formed at the start of the environmental restoration process at a DOD facility and are adjourned upon signature of RODs for all areas, achievement of response complete or remedy in place for all areas, achievement of the RAB goals, or the lack of sufficient and sustained community interest.

The RAB membership consists of interested community members, the Technical Review Committee, USEPA, NDEQ, and other state and local agencies that have a stake in the project.

- **Maintain the Information Repository** - CENWK has established and maintains an Information Repository at the Mead Public Library which contains former NOP environmental plans, reports and other project-related information as stipulated in the FFA. The location of the Mead Public Library and its hours of operation are presented in Appendix C of this PIP. The Information Repository contains the Administrative Record, as required by CERCLA. In July 2006, a computer dedicated to the Mead project was made available at the Mead Public Library. The computer has electronic versions of the documents in the repository. Users can download documents onto their own electronic media (compact discs [CDs] or memory sticks). As technological capabilities allow, the Information Repository documents will be made available on the project website. To make it easier for the public to use the documents contained at the repository, an easy-to-understand index is available at the library. The index lists all the project documents available at the Information Repository.
- **Conduct Yearly Site Tours** - CENWK will continue to conduct a yearly site tour for interested community members. These yearly site tours will continue to be held in the summer and will be announced in the local newspapers, through posted flyers, and through quarterly newsletters/mailings to the project mailing list. The site tours will highlight the locations of the major activities being conducted at the time of the tour. Major stops will continue to be the Main Groundwater Treatment Plant, the LL 1 Groundwater Treatment Plant, the AOP and LL 4 Groundwater Treatment Plants, and any other remediation systems in operation at the time of the tour.
- **Maintain the Project Website** - CENWK has developed and is maintaining a project website at www.nwk.usace.army.mil/projects/mead/. The current project website contains the following information for the public's use:
 - Site Technical Information
 - Community Relations
 - Project History and Implementation
 - Contact Information
 - Fact Sheets
 - Frequently Asked Questions
 - Newsletters
 - Open House Event Information

It was noted in the interviews that some of the community members do not have ready access to the internet; however, CENWK is committed to maintaining the project website for the interested public that can access project information in this manner.

- **Maintain Project Mailing List of Individuals and Organizations Interested in Receiving Information** - The CENWK Project Manager has established and is maintaining a mailing list of local residents and officials and government regulators interested in the site restoration activities as stipulated in the FFA. This mailing list helps CENWK keep the community informed of site activities. Contacts on the mailing list receive quarterly newsletters, copies of fact sheets as they are developed, and invitations to site events. CENWK provides the USEPA and the NDEQ an updated mailing list on an annual basis. The mailing list will be updated continually throughout the remediation process by adding people who request to be added and who attend the open house events; and by dropping individuals for whom mail is returned as undeliverable at least three times. Anyone who wishes to be added to the list should contact the CENWK Project Manager listed in Appendix B.
- **Maintain Communication with Federal, State and Local Government** - CENWK is committed to continued communication with our partners, USEPA and NDEQ, as required by the FFA. Communication and information exchange between such local agencies as the Lower Platte North NRD, the Lincoln Water System, and NU officials is a key component of the overall success of the project. CENWK also maintains communication with other municipalities surrounding the site, such as Ashland, Wahoo, Memphis, Ithaca, Yutan, and Mead, through mailings, periodic e-mails, and telephone conversations.
- **Update PIP** – This PIP will be updated every three years or when needed.

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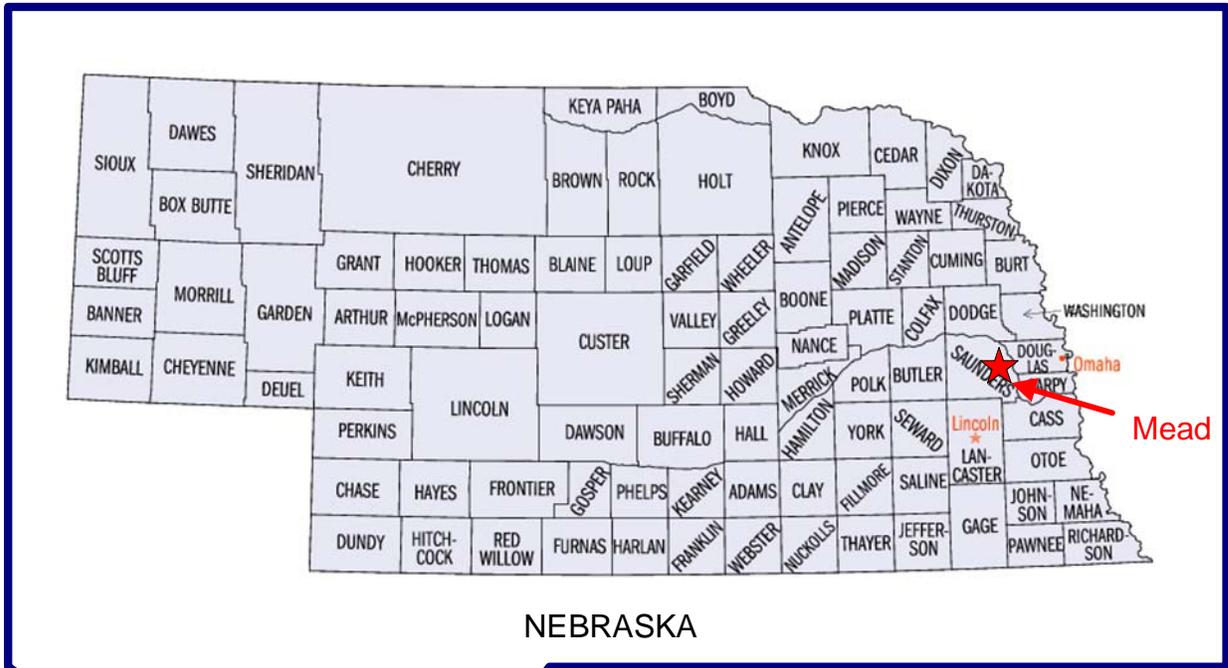
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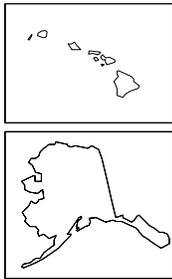
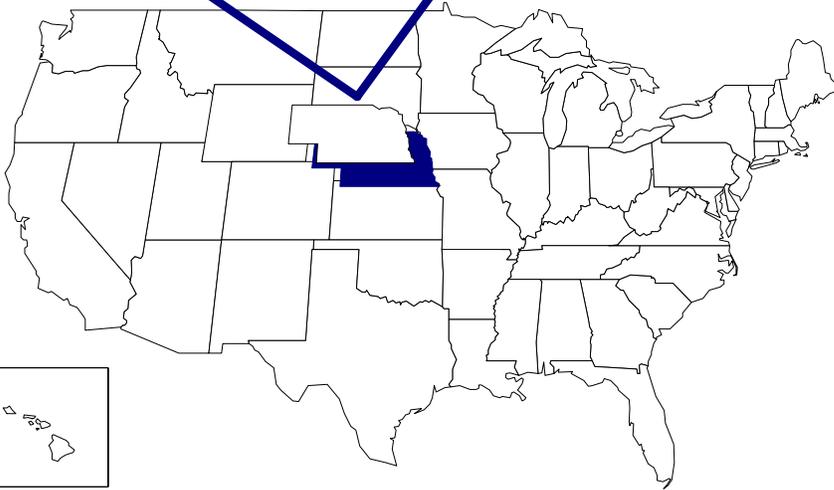
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Figures

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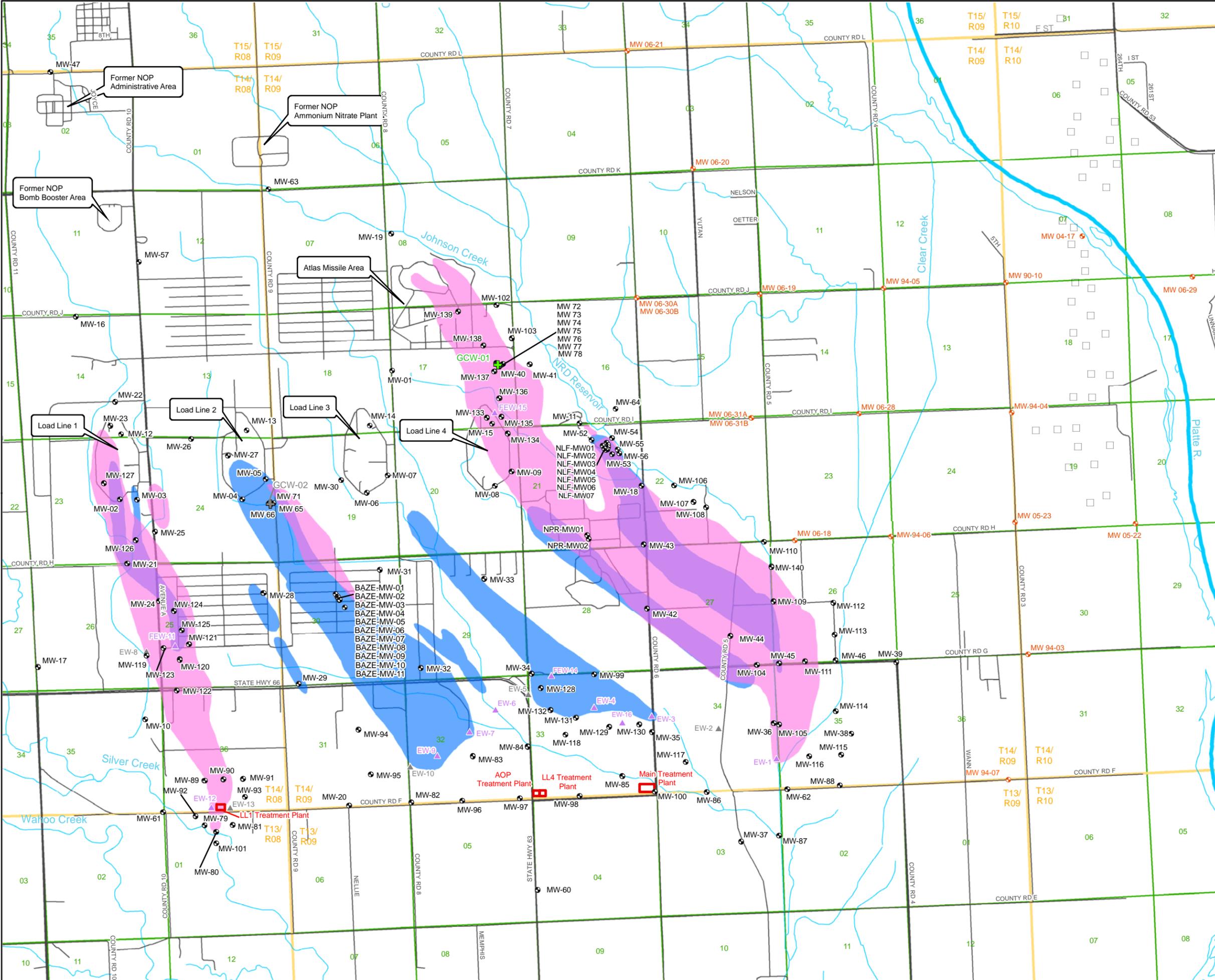


NEBRASKA



		 US Army Corps of Engineers ® Kansas City District			
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Checked by:	BB				
Submitted by:	MJ	Drawing No:	Figure 2.1-1	Date:	1/8/2010

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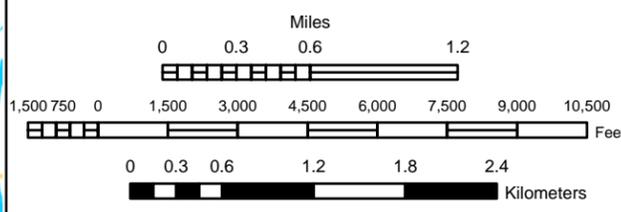


EXPLANATION

- Groundwater Monitoring Well/ Well Cluster
- Groundwater Extraction Well
- Groundwater Extraction Well (Inactive)
- Groundwater Circulation Well
- Groundwater Circulation Well (Inactive)
- Municipal Utility District Extraction Well
- Municipal Utility District Monitoring Well
- Treatment Plant
- Township and Range
- Section
- Approximate Area of TCE at a Concentration of 5 ug/L or Greater (2008)
- Approximate Area of RDX at a Concentration of 2 ug/L or Greater (2008)
- Approximate Area of Both TCE and RDX at a Concentration of 5 ug/L or Greater and RDX at a Concentration of 2 ug/L or Greater (2008)

NOTE:
TCE and RDX plume delineations are based on Groundwater Monitoring Program data, direct-push data, and other data. The plume delineations represent a combination of the shallow zone data and the intermediate zone data.

Observation wells not shown due to scale.
TCE - trichloroethene
RDX - hexahydro-1,3,5-trinitro-1,3,5-triazine
ug/L - micrograms per liter



**Figure 2.1-2
Former NOP Site Map**

Drawn by: M Johanson	Reviewed by: S Carter	Notes and Sources
Date: 2/17/2010	Date: 3/1/2010	Projection: North American Datum 1983 Nebraska State Plane
Version:	Revision Date / Initials: 3/3/2010 / MGJ	Units: Feet

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Appendix A

Situational Assessment Report
(electronic copy)

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**SITUATIONAL ASSESSMENT REPORT
NEBRASKA ORDNANCE PLANT SITE
MEAD, NEBRASKA**

submitted by:

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submitted to:

U.S. Army Corps of Engineers
Institute for Water Resources
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under:

Task Order #115
Contract No. W912HQ-04-D-0007

August 26, 2009

Views, opinion and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other official documentation.

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- Appendix C: RAB Letters*

Abbreviations and Acronyms

24DNT	2, 4-dinitrotoluene
4-H	youth leadership program (Head, Heart, Hands, and Health)
ARDC	Agriculture Research & Development Center
CDM	CDM Federal Programs Corporation
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
Corps	United States Army Corps of Engineers
DDT	dichlorodiphenyltrichloroethane
DEQ	Nebraska Department of Environmental Quality
DNAPL	Dense Nonaqueous Phase Liquid
DOD	U.S. Department of Defense
EPA	U.S. Environmental Protection Agency
FAQs	frequently asked questions
FFA	Future Farmers of America
IWR	Institute for Water Resources
M.U.D.	Metropolitan Utilities District
NOP	Nebraska Ordnance Plant
NPL	National Priorities List
NRD	Nebraska Resource District
OU	operable unit
OPPD	Omaha Public Power District
PCBs	polychlorinated biphenyls
PCE	perchloroethene (tetrachloroethene)
PIP	Public Involvement Plan
Q&A	question and answer
RAB	Restoration Advisory Board
ROD	record of decision
RDX	cyclotrimethylenetrinitramine
site	former NOP Site
TCE	trichloroethylene
USGS	U.S. Geological Survey
VOCs	volatile organic compounds

Executive Summary

The United States Army Corps of Engineers (Corps), Kansas City District has been implementing remediation of a contaminant plume beneath the former Nebraska Ordnance Plant (NOP) Site (the site), in Mead, Nebraska since 2002. This remediation is expected to continue for decades. It is the Corps' desire to meet its cleanup obligations at the site and the communication needs of the stakeholders.

To identify ways to improve communications, the Kansas City District requested assistance from the Corps' Institute for Water Resources (IWR) Conflict Resolution and Public Participation Center. IWR subsequently contracted with CDM Federal Programs (CDM) to conduct a situational assessment. The first phase of the assessment consisted of conducting interviews with as many local stakeholders as possible to gauge their feelings about the site and the Corps. The second phase was to use the results of those interviews to provide suggestions for improving communication at the site. To complete the second phase, CDM also interviewed Corps personnel to discuss their experiences with communication at the site.

CDM interviewed 43 local stakeholders including area residents and various agency representatives. The results of those interviews (see Section 3, below) indicated a fairly high level of satisfaction with the work being conducted by the Corps, although several issues were raised that were worrisome to the interviewees. Most residents had lived on their properties for much, if not all, of their lives and had made part or all of their living in agriculture. Properties had often been in families for many generations. Many of the residents were senior citizens, and only seven interviewees lived outside of the area. All interviewees indicated they had at least some familiarity with the site, and most considered themselves to be very familiar. Many of the interviewees were current or former Restoration Advisory Board (RAB) members.

Almost 60 percent of respondents said they had a moderate level of concern about the site. The remainder was evenly divided between a low or high level of concern. The most common concerns expressed were groundwater contamination, property values, and health effects. As at almost all environmental sites, people were most concerned about how the contamination or site activities would affect them or their property.

Most respondents had interacted with the Corps or their contractors in one form or another, primarily through well sampling or by attendance at public meetings. More than 80 percent reported those interactions had been positive or neutral. About 60 percent of those interviewed had an opinion on the work being conducted by the Corps. Most (53 percent) said it was positive. Less than 20 percent had a negative opinion.

Most people (about 60 percent) said they were satisfied with the information they were receiving about the site, and some indicated the situation had improved. The remainder said they would like more or different information. The most-often cited options for getting information were written materials (59 percent) and meetings (41 percent). Opinions were divided on using the Internet (either Web sites or e-mails). Many people

wanted a mix of information options. Almost 90 percent of interviewees were interested in maintaining their current level of involvement. Many said they had other demands on their time and didn't feel they could be more involved.

Almost 70 percent of the people interviewed had attended RAB or other meetings. Many of those people felt strongly that such meetings were important. However, the majority were unhappy with the way the RAB meetings were run. Suggestions for improving the RAB meetings focused primarily on length and format. Also cited were meeting frequency, location, materials, documentation, and follow-up.

CDM also conducted separate interviews with some Corps personnel to gather information on site background, issues, and past outreach (see Section 4, below). This information was necessary to develop suggestions for future outreach activities at the site. Those interviewees said the most contentious issue at the site was the installation and pumping of the Metropolitan Utilities District (M.U.D.) wells, and that those wells seemed to be the driver for most disagreements between the Corps and the community RAB representatives.

The Corps interviewees thought their work at the site had been good and that they were meeting their responsibilities in containing and monitoring the contaminant plume. Corps interviewees believed that pumping the M.U.D. wells did not threaten the containment of the plume. Corps personnel also felt that the public did not understand that decisions and assumptions at environmental sites often have to be modified as new data are received. They felt that when such changes needed to be made at the site, they had sometimes been made to look like mistakes made by the Corps, rather modification necessitated by new data.

The Corps personnel interviewed believed that the Corps' relationship with the community at large was good, but that there was not much independent information to back that up. They said that relatively little time or money had been invested in outreach, and that various outreach methods had been tried in the past but not in a consistent or long-term manner. Prior to the M.U.D. well issue, Corps personnel interviewed felt the relationship between the Corps and the community RAB representatives had been good. However, Corps interviewees felt that the current relationship was unworkable and said that efforts to improve that relationship (e.g., hiring a facilitator) have been rejected. They believed suspending the RAB meetings was a good idea. Corps interviewees felt there was little hope for improving the situation given the response received to date from the RAB.

Based on the results of the interviews with the stakeholders and the Corps personnel, it appears that the Corps is meeting its obligations for communication at the site. The Corps has held public meetings, distributes newsletters, maintains a Web site, provides a contact person for questions, maintains an information repository, and sponsors the RAB (although the RAB is currently indefinitely suspended). In general, the opinion of the Corps in the community seems to be relatively good.

Although the Corps is making a good effort to communicate with the public, there is room for improvement. These improvements are especially important given what may

turn out to be irreconcilable differences between the Corps and the community representatives of the RAB. To focus the suggested improvement activities, CDM developed three communication goals (see Section 5, below) for the site: meet the stakeholder's needs for communication and interaction, increase trust, and reevaluate the viability of the RAB.

Nine specific steps were developed (see Section 5.4, below) to assist in meeting these communication goals. The following steps have been ranked on the basis of ease of implementation and priority and can be used alone or in combination to improve communication at the site:

1. Understand the audience
2. Understand issues and answers in advance
3. Involve the team in communication
4. Ask and answer questions
5. Continue to have public meetings
6. Improve existing outreach materials
7. Reach out to new groups
8. Develop new outreach tools
9. Resolve the issues related to the RAB

Each of the steps above is important; most of them include activities the Corps is already doing (to one degree or another). For each step, details are provided for improvements that can be made within the framework of the Corps' existing outreach program. Many improvements are very simple and require little extra time or effort, just tweaks in behavior or thinking. Others require more effort, but can have a significant payoff (e.g., development of new outreach tools). Finally, some improvements (e.g., reaching out to new groups) are extras that could build valuable relationships, but require more of a commitment of time or resources.

Improving communications at an environmental site can seem like a luxury when basic communication needs are being met, especially with the limited resources available to the Corps and the other demands placed on its personnel. Indeed, if the RAB was functioning as envisioned in the RAB guidance issued jointly by the Department of Defense (DOD) and the U.S. Environmental Protection Agency (EPA), many of these suggestions could be considered extras rather than necessities. However, given its current relationship with the RAB the Corps could make a prudent investment in the long-term success of the project by committing the resources necessary to implement at least some of the steps identified in this report.

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Section 1 Introduction

The United States Army Corps of Engineers (Corps) Kansas City District has been conducting investigation and cleanup activities at the former Nebraska Ordnance Plant (NOP) Site (the site), in Mead, Nebraska since 1991. Since that time, the Corps has worked to maintain a cooperative relationship with the wide variety of stakeholders at the site. To proactively assess and improve the existing level of communication between the Corps and the stakeholders, the Kansas City District recently requested assistance from the Corps' Institute for Water Resources (IWR) Conflict Resolution and Public Participation Center. The IWR Center provides assistance to Corps' field offices in areas of conflict resolution and public participation.

In response, IWR contracted CDM Federal Programs (CDM) in January 2009 to conduct an independent and impartial assessment of communication issues related to the site. CDM was to assess current conditions and suggest appropriate follow-up measures in response to conflicts the Corps has been experiencing at the site. This situational assessment is to be the first phase of a longer process. The second phase of the project will entail carrying out the situational assessment's recommendations.

1.1 Background

The site occupies approximately 17,250 acres located one-half mile south of Mead in Saunders County, Nebraska. During World War II and the Korean War, bombs, shells, and rockets were assembled at the site. The NOP included four bomb load lines, a Bomb Booster Assembly plant, an ammonium nitrate plant, two explosive burning areas, a proving range, a landfill, a wastewater treatment plant, analytical laboratories, and storage and administration facilities. Most of the raw materials used to manufacture the weapons were produced at other locations and shipped to the NOP facility for assembly. Routine plant operations included washout of explosive materials prior to bomb loading and assembly, and bomb washing following assembly. Wash water was discharged to sumps and open ditches.

From 1942 to 1956, the NOP produced munitions at four bomb-loading lines, stored munitions and produced ammonium nitrates. The property also contained burn areas, an Atlas missile facility, and a sewage treatment plant. During the 1950s and early 1960s, the US Air Force operated an Atlas Missile Launch facility. Construction and maintenance activities at the site resulted in the release of trichloroethylene (TCE), an industrial solvent, into the groundwater near Load Lines 1 and 4.

Most of the property is now owned by the University of Nebraska, Nebraska National Guard and private entities. The Corps has identified soil contaminated with polychlorinated biphenyls (PCBs) and munitions and on-site and off-site groundwater contaminated with explosives and volatile organic compounds (VOCs). The U.S. Environmental Protection Agency (EPA) placed the property on the National Priorities List (NPL) in 1990 and signed an interagency agreement in 1991.

Because the site is very large, with different types of contamination in different locations, investigation and cleanup activities were organized in categories called “operable units.” Three operable units (OUs) were organized to help expedite investigation and cleanup activities.

- **OU1 - Soils.** OU1, which includes soils contaminated with explosive compounds, was completed in 1999 with the excavation of soils and treatment through an on-site incinerator.
- **OU2 - Groundwater.** OU2 consists of a groundwater extraction and treatment system that hydraulically contains 11 square miles of contaminated groundwater, preventing its further migration to the south and east. The system consists of a network of 13 extraction wells, 3 water treatment plants, and almost 400 groundwater monitoring wells, private water supply wells, and surface water locations sampled on a regular basis. Alternate water supply is provided to residents whose domestic wells are contaminated from military activities at the site. Three additional groundwater extraction wells are currently being constructed under separate contract.
- **OU3 - Miscellaneous Sites, Ordnance and Explosives.** OU3 includes a former on-site landfill and former unidentified waste disposal areas not previously identified. Contaminants evaluated include metals, explosives, volatiles and semi-volatiles. Ordnance and explosives, previously managed as a separate project, will be merged into the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) process.

In 1997, the Corps converted the property’s technical review committee to a Restoration Advisory Board (RAB). The RAB is co-chaired by a member of the local community and the Corps project manager. For many years, the RAB meetings were well-attended and relationships among members were congenial. However, in recent years the meetings have had lower attendance as many people choose not to attend because of the ongoing disputes and disagreements that have arisen. Trust between the Corps and the various other members of the RAB has deteriorated. The last formal RAB meeting was held in October 2007, although the Corps has continued to hold other quarterly meetings that are open to the public. The Corps has informed the community that RAB meetings will be held only under the condition that the meeting is facilitated and formal operating procedures are adopted. Some RAB members claim that the imposition of these requirements is “illegal.”

1.2 Report Structure

This report is formatted to include specific information requested by the Corps, as follows:

- **Executive Summary.** Synopsizes the information provided in the report.
- **Section 1. Introduction.** Provides project background and an outline of the report's structure.
- **Section 2. Scope of Work.** Details the activities conducted as part of the situational assessment.
- **Section 3. Results of Interviews with Stakeholders.** Summarizes the scope of relevant issues and concerns that were identified. Neutrally describes the range of perspectives and concerns related to these issues.
- **Section 4. Results of Interviews with the Corps.** Summarizes what Corps personnel said are the main issues at the site. Discusses the outreach and communication efforts that were made by the Corps at the site.
- **Section 5. Suggestions for Improving Communication.** Summarizes the interviews, sets goals for improving communication, and lists steps for attaining those goals.

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Section 2 Scope of Work

As stated in Section 1, CDM was brought in to conduct an independent and impartial assessment of communication issues related to the site. This work was intended to assess current conditions (Phase 1) and suggest appropriate follow-up measures in response to conflicts the Corps has been experiencing at the site (Phase 2). The site-specific information was to be gathered primarily through interviews with local stakeholders and past Corps project managers. This section describes the process undertaken to conduct those interviews and complete the situational assessment.

2.1 Phase 1 - Assessing the Current Situation

2.1.1 Identification and Notification of Interviewees

The intent of the interviews was to gather information from 30 to 40 site stakeholders. These stakeholders could include local residents, property owners whose wells were sampled by the Corps, RAB members, and people who had knowledge of the site, either due to their physical location, job, or particular interests. The Corps provided CDM with a site mailing list as a basis for contacting potential interviewees. That mailing list contained approximately 130 names. The Corps also took advantage of its January 2009 public availability session to announce the upcoming interviews and solicit volunteer interviewees (see Appendix A). No one at that meeting signed up to be interviewed.

As a first step to the interviews, a letter signed by the site project manager was mailed to everyone on the mailing list. The letter explained the reason for conducting the interviews and the basics of the process that would be used (see Appendix B). The letter alerted people that they might be receiving a phone call about the interviews in the next few weeks.

For individuals who had a mailing address, but no recorded phone number, a separate insert was included in the letter that requested interested individuals to send the Corps their contact information in an enclosed self-addressed, stamped envelope. The six people who responded to that request were included in the interview process. An e-mail interview request was sent to people who had only an e-mail address, but there were no responses.

2.1.2 The Interview Process

After the letters were mailed, multiple attempts were made to contact the individuals. Once potential interviewees were reached by telephone and agreed to participate, they were asked if the interview could be conducted at that time, or if another time would be more convenient. Two people were added to the list at the recommendation of a neighbor.

During the interview, the interviewee was guided through various topic areas. Notes from each interview were compiled separately to use as a basis for the summarization

process. Interviewees were assured that the names of the people who participated in the process would not be linked to their responses. For that reason, neither the individual interview write-ups nor the names of the people interviewed are provided.

Interviewees were allowed to talk as long as they wished. With a few exceptions, most interviews generally lasted about 10 to 15 minutes. The interviews were conducted between February 23 and March 25, 2009. During that time frame, 100 individuals were called, contact was made with 52 people, and 43 interviews were conducted.

A prepared list of discussion topics was used to allow a broad range of topics to be covered and to facilitate summarization of the results of multiple interviews. However, interviewees were allowed to take the conversation in whatever direction they chose. Most people covered all the discussion topics, but a few interviews were very short and consisted of people giving a brief statement.

The initial topics of conversation that were covered with the interviewees were:

- **General background.** How long they have lived in Saunders County? Do they live near the site? Do they have kids at home?
- **Familiarity with the site.** Had they or any of their family members worked there? What did they know about the site?
- **General level of concern about the site in comparison to other issues in their life.** For instance, three examples might be: high (worry about it daily), medium (worry about it occasionally), or low (almost never think about it).
- **History of interactions with the Corps or their contractors.** Have the interviewees' wells been sampled? Have they attended meetings? Have they had other types of interactions? How did they feel about those interactions?
- **Concerns (if any) regarding the site.** Examples could include contamination (soil and groundwater), property values, community participation in the process, water supply, etc.
- **Opinion on the work being done by the Corps at the site.** Do they have an opinion? Could they say if it was positive, neutral, negative, or other?
- **Satisfaction with the level of information they are currently receiving on the site.** Are they getting the information they need? Too much? Not enough?
- **Best way to get information to them about the site.** Do they prefer one method or a variety? Is there a resource they trust more than others?
- **Satisfaction with current level of involvement.** Do they wish they could get more involved? Are they happy with their current level of involvement with what's going on at the site?

- **Attendance at site meetings.** Have they attended site meetings? If so, which ones and how many?
- **Suggestions for improving site meetings.** Is there anything that could be done to make the site meetings more useful or appealing?
- **Other thoughts or comments.** Do they have any additional thoughts on improving communication in general at the site?

After the interviews were completed, the findings were compiled for each topic area (see Section 3) to assess trends and to protect the privacy of the interviewees. Care was taken to ensure that specific responses were not attributed to an individual.

2.2 Phase 2 - Understanding Past Actions at the Site and Developing Recommendations for Improvement

After discussing the results of the community interviews with the Corps, it became apparent that interviews with current and former site personnel would be useful to provide the background information on what had or had not been done at the site in terms of outreach. That information was necessary to develop relevant recommendations for future outreach work at the site. Those recommendations would rely on an understanding of the community's concerns and issues and a knowledge of what had previously been done by the Corps at the site. Those interviews are summarized in Section 4.

2.2.1 Interview with Past Project Managers

The Corps provided a list of five past project managers or other personnel who had worked at the site between 2003 and 2009. The following are the initial topics of conversation covered in those interviews:

- **Background.** When did you work at the site? What activities were ongoing? Were there any non-NOP issues in the area that you feel affected the NOP?
- **Major issues.** What do you think were the major issues with the public during your tenure and now?
- **Outreach activities.** What outreach activities were in place when you became project manager? What are your thoughts on how well they worked? Which do you think were the most successful?
- **Changes to outreach.** Did you drop any existing outreach activities or try new ones? What were the results? Which were the most successful?
- **Relationship with other RAB members.** What was your relationship with the other RAB members (community members and agency members)? Did you try anything to improve the relationship?

- **RAB meetings.** Please describe the RAB meetings. How often were they held? How long were they? How well attended were they? Were all groups represented? Were there specific groups with issues? What was the format? What was the general tone, and did it change over time?
- **RAB continuation.** Do you think the Corps should continue the RAB? If yes, do you have any suggestions for future managers in facilitating those meetings? If no, do you think there is a more effective way to get information to the public (i.e., in a meeting or other format)?
- **Relationship with the community.** What was your relationship with the community as a whole?
- **Wish list.** Is there anything you wish you could have achieved?

The findings for the interviews with Corps personnel are provided in Section 4.

2.2.2 Development of Goals and Steps for Improvement

Based on the results of the interviews with stakeholders and past project managers, a series of three communication goals and nine steps for attaining those goals were developed for the Corps to improve communications at the site. Those recommendations are provided in Section 5.

Section 3 Results of Stakeholder Interviews

This section summarizes the scope of relevant issues and concerns that were identified as a result of the stakeholder interviews.

3.1 Results for Individual Topic Areas

The results of the interviews with 43 residents and other site stakeholders are summarized in this section by individual topic areas described in Section 2. Comments that help provide a more detailed response are also provided. No interviewee names have been attributed to specific comments. To further protect privacy, most personal information has been removed from the comments. The exception is for comments provided to the first two questions (general background and familiarity with the site) as those comments provide a sense of the respondent’s history with the area and the site and do not espouse particular opinions about the site.

For ease of reading, an attempt has been made to sort the comments into similar categories (e.g., positive or negative). However, comments may also overlap a category. A summary of the results is shown in Table 3-1. Because this information was derived from conversations with interviewees, rather than from detailed written surveys, the numeric summaries are somewhat subjective and do not represent precise measurements.

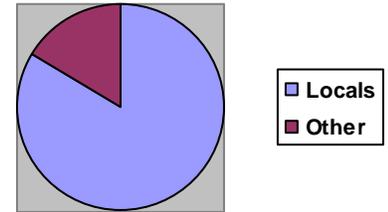
Table 3-1. Summary of Responses to Interview Topics

Topic	Summary
General background	84% local residents, 16% other
Familiarity with site	100% were familiar, some said they were very familiar
Level of concern	19% low, 59% medium, 22% high
Past interactions with Corps or contractors	60% positive, 23% neutral, 17% negative 58% wells sampled, 17% attend meetings, 36% other
Concerns about the site*	52% groundwater, 74% multiple, 26% property values, 26% health, 16% none
Opinion of the work the Corps is doing	53% positive, 26% negative, 21% mixed, 15% none
Satisfaction with amount of information provided	61% happy, 39% want more
Preferred source of information*	59% written materials, 41% meetings, 24% e-mail, 24% other
Satisfaction with current level of involvement	88% happy, 12% would like to be more involved
Familiarity with meetings	68% have attended, 32% have not

**Interviewees could provide more than one response to this topic*

3.1.1 General Background

Most of the area residents interviewed were individuals who had lived on their properties for most, if not all, of their lives. These people generally made part or all of their living off of agricultural pursuits on their land. Very often, the residents' property had been in their family for many generations; if the interviewee did not live on the property, their parents still did. Many residents were senior citizens. Only seven of the interviewees lived elsewhere. Eight of the people interviewed were current or former community representatives of the RAB; five were agency representatives (non-Corps). Individual comments are provided below.



3.1.1.1 Local Residents

- I've lived on this property all my life. It was owned by my great, great grandfather. I raised my children here.
- I have farmed and lived in Saunders County forever. I was only gone while I was in the service. I'm lucky to live where I was raised.
- I live in Saunders County. I've lived here all my life. I put a well in this house in 1975 and had 2 children.
- I've lived here all my life, and I'm 82 years old.
- I've lived my whole life in Saunders County. I live in town now because I'm afraid to live on the farm. My parents live on the farm. I keep telling them to move into town, to move away, but they don't want to. I worry about them.
- I have lived in Saunders County for 52 years.
- I've lived in Saunders County all my life - about 45 to 50 years.
- I live near the site and have been here for 40-some years.
- I've lived in Saunders County near the site for about 35 years.
- I've lived here 30 years.
- I live here part time. My Ma had property there. After she died, I just visit on weekends, etc. We've lived here for 30 years.
- I've lived in Saunders County for 30 years.
- I've lived here most of my life (about 30 years). My Grampa worked at the NOP 70-80 years ago.
- I've lived in Saunders County since 1980. I have children at home.
- I've lived here since 1983.
- I have lived in the town of Mead for more than 24 years.
- I have farm that has contamination under it for 20 years.
- My relatives have lived in the area since the 1870s, and I've lived here 15 years.
- I've lived in Saunders County for 12 to 14 years. I live near the site and have kids.
- I've lived in Saunders County for 12 years. I am near the site - my kids are in college now.
- I've lived here for 10 years.
- I've lived in Saunders County for 5 years.
- I have lived here about 1 year.

3.1.1.2 Other Stakeholders

- I don't live in the area, but I'm familiar with everything that goes on. I've been working on the project for about 5 years.
- I work in Omaha.
- I live in Omaha, but I'm concerned about potential contamination of M.U.D. wells, and I attend many meetings.
- I live in another county. I'm an environmental specialist. I work on the site.
- In our district, we assist when we can and work directly with the Corps.
- I don't live in Saunders County. I did my thesis project out there and have remained interested. I went through all the literature.

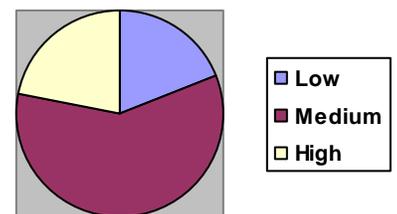
3.1.2 Familiarity with the Site

All of the people interviewed indicated that they had some familiarity with the site, and most considered themselves to be very familiar. Specific comments beyond this are provided below.

- I feel quite well informed. I am regularly asked to explain things to my neighbors.
- Very familiar. They're trying to protect groundwater, as mandated by law. With a 100-year cleanup plan, I wonder if we're really getting anywhere.
- I'm very familiar. My background is in geology, and I was a consultant.
- Very familiar. I don't work on the site, but visit regularly. I get Corps reports. I capture and file data. Sometimes we scan newspaper articles.
- Pretty familiar. My family has been in the area for a long time.
- The site is right across the street from my house.
- I keep up on everything. I read all of the minutes. I attend meetings when I can.
- Pretty good level of knowledge. Working on the site
- I read stories and have attended many RAB meetings.
- I'm fairly familiar. I served on NRD [Nebraska Resource District] board and did appraisal work for the Corps.
- Yes, fairly familiar. I go to open houses, and the Corps sends materials to review.
- Very familiar. I was the co-chairman for 4 to 5 years on site info via RAB.
- Yes, I was on the City Council.
- Yes, I'm within 1.5 miles of some really bad contaminants.
- Yes. I'm a scientist.
- I've been to a couple RAB meetings and have done some research on the internet.
- I try to keep up. I'm a RAB member, but don't attend all of the meetings.
- I am fairly familiar, and I am a RAB member.

3.1.3 General Level of Concern about the Site

Almost 60 percent of the people who responded had a moderate level of concern about the site. The remainder was evenly divided between having a low or high concern. Specific comments beyond identifying their level of concern are presented below.



3.1.3.1 Low

- I was not formerly concerned. My well tested clean, but I do worry about it more now because what if the groundwater testing comes back and it's not good?
- I don't worry about it, at least not until it gets to Mom's house. The government has been slow to admit that there's a problem. When they started doing this stuff about 50 years ago, they had no idea it was dangerous.

3.1.3.2 Moderate

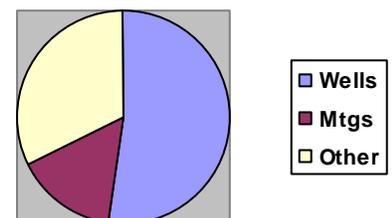
- Medium to Low. I know that it's a contaminated site. I think the Corps is trying to do their best. I see quarterly reports from whatever they find.
- On a scale of 1-10, my level of concern is 5.
- I try not to think about it, but my boy lives across the road, and I worry about him. They test his well regularly and so far the reports have been good. No complaints so far about the way the Corps does its work.
- Medium, but I am not a resident. If I were a resident, it would be "high."
- Medium. I worry about the water. I worry about things moving onto our property. I worry about our kids.
- Medium to High. There is a good deal of concern in the District. I would say my top five concerns might not be representative of the residents' top five concerns.
- Medium. Our property is within the one-mile buffer, and I'm a bit concerned with the M.U.D. wells now. I would really like to build a new house, but I'm hesitant to do that until I know what's going on for sure.
- I used to be way more concerned when I had children at home. I worry for people that have children. I'm concerned that today's children will get cancer or tumors. I'm worried that there are also nitrates and DDT [dichlorodiphenyltrichloroethane] in the soil, from the site and from farmers. I am not personally concerned, but I'm concerned for others.
- Medium. My son owns property that is in the line.
- Medium-High. I'd be more worried if I lived in the plume.
- Medium-High. I drive by the treatment plant daily, so I think about it every day.
- Medium-High. I don't really "worry" about it, but I think about it every day. I mean, I see it every day, so of course, I think about it.
- Medium-High. My concern is bigger than just myself as an individual.

3.1.3.3 High

- High. Every time that I take a drink, I worry. Even when I shower, I worry. The Corps is making mistakes that are dangerous to the citizens.
- High. I worry. One plume comes down near me. But, I trust the Corps, and I think that they are doing everything they can do.

3.1.4 Past Interactions with the Corps or Site Contractors

Most of the people who responded had interacted with the Corps or their contractors in one form or another, primarily through well sampling on their property or by attending public meetings. More than

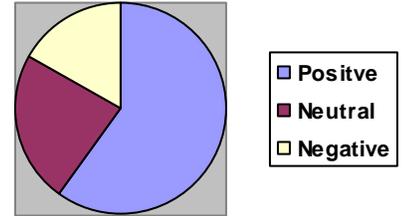


CDM

80 percent of the people who responded reported the interactions as positive or neutral.

3.1.4.1 Well Sampling

Almost 60 percent of the people interviewed had wells that were sampled by the Corps' contractors. Their specific comments are provided below.



- The Corps regularly samples my well. Once a month in summer and 2 to 3 times in winter. They always call or send a letter first. I was at home for one of the first visits, but they seem to know what they're doing and now I just let them come whenever they want and do their work.
- The Corps comes out twice a year to sample. It's a very positive experience.
- The Corps has called to see if they could sample water, and I let them. It was no big deal. They seemed to respect my property and didn't disturb anything.
- The Corps started sampling my wells several years ago and they've done it twice a year since. It's been a positive experience. I'm very glad that they check it. Otherwise, I would really wonder what was going on.
- The Corps is always very polite. Testing is good for the residents. I always get the results within a month, and I appreciate that.
- My water is sampled, and it's a positive interaction. The contractors are available, polite, and ask good questions.
- I recently had people come out to check water. I haven't received any results yet. The neighbors really helped us get the well samples going.
- Yes, I've had positive interactions with Corps. When they sample our well, they always call and come by at a convenient time. It's been very positive.
- My wells are sampled quarterly. I just say "hello." I don't really interact with them. They always call and are polite. My interactions have been pretty positive.
- I had my water sampled in January, but I haven't received any results yet. I received drinking water in the past, but now it's getting treated.
- NRD samples irrigation wells, and the Corps sampled the house well.
- They've sampled wells, and I felt neutral about the interactions.
- Yes, they've sampled. I feel neutral.
- Our wells are sampled.
- We have monitoring wells on our property.
- They take samples from my son's property. The interaction is okay.

3.1.4.2 Meetings

About 17 percent of the interviewees said their interactions with the Corps had primarily been through attending meetings or other events. Their specific comments are provided below.

- My experience is limited to correspondence and meetings. The Corps seems open and honest, but you have to ask the right questions to get your answers and the average Joe might not have access to the lingo. People want to know "What is my water sample like compared to others?" But they don't know what "turbidity" is,

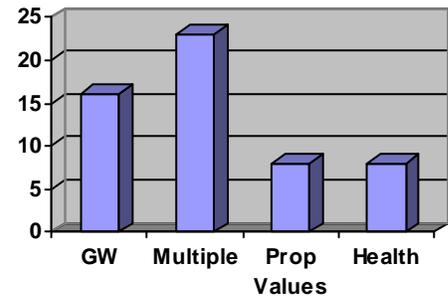
- etc. I don't believe the Corps is hiding, but their engineers need to make a sincere effort to exchange information with community members without having to dig.
- I've gone to open houses, talked on the phone, and gone on bus tours. All have been very positive.

3.1.4.3 Other

- I've only had paperwork contact.
- I am not impressed. They didn't seem to accomplish anything, but maybe I just don't understand what is going on.
- The Corps gives me sampling reports and data as a courtesy.
- Yes, but not recently. It was fine.
- Yes, positive.
- Yes, it's been great. The people are very nice.
- My interactions with the Corps have been very, very positive.

3.1.5 Concerns about the Site

When the topic of concerns was raised by CDM, about 85 percent of the people interviewed said that they had specific concerns. Many people had a variety of concerns. The most commonly expressed concerns were groundwater contamination, property values, and health effects. Specific comments regarding those concerns are found below. When one comment covers a number of concerns, it was placed in the "multiple concerns" category, but the individual concerns listed in the comment were tallied.



3.1.5.1 Groundwater

More than 50 percent of the people interviewed said that groundwater was their primary concern at the site. Among those people, the primary concern was the M.U.D. wells.

- I didn't really have concerns as long as contaminants didn't get into my groundwater. But now there are more pumps and more cleaning, so I am concerned.
- I am concerned that the plume will be pulled towards my property and that OPPD [Omaha Public Power District] is taking water to process sewage instead of growing food. I am concerned those big corporations have run small farmers out of business, and that petrochemicals will further destroy groundwater.
- I am mainly concerned with groundwater. I know the Corps is trying to keep up with things, but I tell my boy to drink bottled water and not take risks even though the reports have been good.
- The aquifer may change directions. I don't know that they will get all the work on the plume done before it moves further south because of the natural flow.
- I got involved because I am concerned about the potential movement of the plume since they installed the new M.U.D. wells. Those wells are supplying the city where I live, and I want to know they are taking the issue seriously.

- My biggest concern is water and the long-term clean up. I don't think the public understands what that really means. They don't understand environmental remediation. If there's garbage on the ground, you pick it up, and it's done. They wonder "Why hasn't the Corps picked everything up and called it done?" It's a very different issue. The Corps has to work harder to educate the public on this.
- My primary concern is groundwater quality and quantity.
- All of the above, but mostly that groundwater could be contaminated.
- My top worry is that someday they'll pull my well out with all of this water they're pumping for M.U.D. I'm not too far away from the M.U.D. wells.
- Groundwater is the thing that concerns me most. I don't think they have the contaminants clearly contained. M.U.D. really complicates matters, and it's a tremendous amount of money. It bothers me to see so much money being spent when I can't see much progress.
- I am primarily concerned about groundwater. I'm concerned that M.U.D. tap water can come from the Platte, the Missouri, or these fields and citizens have no idea where it is coming from at any given time. M.U.D. already got their plant. It's not like they asked the public what we wanted.
- My biggest concern is that M.U.D. is going to contaminate more of the groundwater. Our water now is excellent. M.U.D. pumping is very concerning.
- The Corps will not sample my wells. I water vegetables, and I wonder if they are being contaminated. I've asked for samples. I just don't think it's that complicated. If your house is within a few hundred feet of the plume, they should give you water. They don't know all the answers. Water is cheap. They spend billions on other things. We're in the plume.
- M.U.D. is supposed to pump 52 million gallons per day. So, what are things going to be like here in another 5 or 10 years? I'm worried about lowering water tables. It is sand and gravel out here. I'm very concerned it will affect my land. If the water table is pulled lower, my centrifugal pump might not work. There are lots of these pumps in the area, and they only work because of a high water table. People west of us are on bottled water because of TCE and RDX [cyclotrimethylenetrinitramine]. I think pumping will move the plume.
- I have city of Ashland water. So I'm worried about the water supply to residents.

3.1.5.2 Multiple Concerns

Almost 75 percent of the people interviewed said that they had multiple concerns regarding the site. Many people brought out their concerns in conversation without being questioned. If the interviewees were not talkative or were asked a question about their concerns and hesitated to respond, they were provided some example concerns that other residents had listed (i.e., groundwater contamination, soil contamination, property values, community participation in the process and water supply). Human health issues were not mentioned by CDM as a potential concern, yet they were raised by 26 percent of the interviewees. Property values were also mentioned by 26 percent of those who had concerns.

- I am concerned about it all.
- I have several concerns. If it gets worse, I'd be in a bad spot due to my location. The Corps is doing all they can, and I believe they are doing a good job.
- I'm worried about all of that stuff and especially water supply. I read in reports that everything is ok. But then I see numbers out of range, and I don't know exactly what that means.
- All of those things are of a bit of concern to me. It seems like a vocal minority of people want to stir up animosity. Some of it is true, and some of it isn't. I am not very concerned about these things. The most negative things are said by people who don't understand what the hell is going on. Every day, people tell me crazy stories, but they believe those stories and there's not a thing anyone can do to change their minds. It's like a built-in prejudice. You cannot change their beliefs.
- All of these things. My biggest concern is when M.U.D. starts really pumping. What will that do to groundwater and the plume? Property values are a huge concern. Water is brought in because of contamination, so it's a large concern for people trying to sell. There's a lot of cancer in the area, but I don't think there's been a study to show correlations between contaminants and cancer rates.

Primarily Health

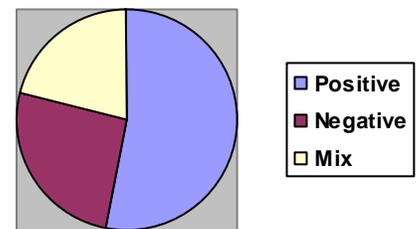
- I am concerned about it all, but am very concerned about people's health. There are 60 chemicals in the aquifer, and 23 of them can cause cancer. Water is bottled or in a filter, but I suspect that more areas are contaminated than we currently know about. There needs to be more testing.
- Everything listed is of concern to me. A farmer farms our land for us. I'm especially concerned about the water. We have children at home. I also worry very much about our property values.
- All of the things listed concern me. Our high rates of cancer concern me. I really wanted to raise my family on the farm, but I'm afraid, so we live in town. This is not the life I wanted for them. I can't even sell the land because people are afraid to buy. Suppose the next guy gets sick and sues me? The Corps should relocate us and give us another farm. This only affects about six farmers. Most of our land is contaminated and completely devalued.
- All of these things really concern me. My largest concern is health. I drink well water which concerns me the most. If M.U.D. is drawing off the aquifer, then of course it is going to change the dynamics. Exactly what does this do to the plume? As I learn more, I get more concerned. I haven't had time to attend meetings; but I grow more concerned daily, as I speak with my neighbors.
- I'm concerned with all of the above, but also I am concerned with cancer. Although one professor that I talked to said you'd have to drink 20 gallons per day for 50 years to get cancer. Our cancer rates are higher than the rest of the state. Maybe contamination isn't even all in the water. How volatile is it? People are feeding the cattle, so what about feedlots? Are cows contaminated? Farmers could lose millions if so (or if the public becomes concerned about it).
- I'm concerned about all of these things. I'm very concerned about contamination. When people run pivots on County Rd 5 and west, people get headaches. That's a big concern. On Johnson Creek there are signs, "Don't fish or let cows drink."

Primarily Property Values

- I am concerned about all of the above, especially that the lake that I live on has moved a lot. We're drinking bottled water, so we're ok; but, if the lake gets contaminated, it can't be fixed. It's a lifetime investment for us and our neighbors. If M.U.D. hadn't been allowed, I would not be nearly as concerned.
- If the contamination got to here, it would definitely drop our property values. Drinking water is also a huge concern to me.
- I'm concerned with groundwater contamination, soil contamination, property values, community participation in the process, water supply. But primarily, I am concerned with the quality of the water and our property values.

3.1.6 Opinion of Work being Conducted by the Corps

About 60 percent of the people interviewed expressed an opinion (positive, neutral, or negative) on the work being conducted by the Corps. Most of these people (53 percent) indicated they had a positive opinion of the work being conducted by the Corps. Less than 20 percent reported a negative opinion. Four people reported both positive and negative feelings. The remainder had no opinion. Specific comments are provided below.



3.1.6.1 Positive

- I think Corps is doing a good job. They check wells on our land, so I think they are trying. I'm not one for giving advice on something I don't know much about. I have faith that they will tell me if or when the water gets bad. Until then, I know the contamination is out there, and I'm concerned about it, but I'm not a scientist or an engineer and I don't really know that much about it. I just have to trust that the Corps will take care of me.
- The Corps has done a good job. They say what they're going to do in advance and do what they say they're going to do.
- Very positive. I've been out there when they're working. They're professional, well-trained, and courteous.
- Positive. We have monitoring wells on our property.
- A few years ago, on a scale of 1 to 10, I would have given the Corps between a 2 and 4. But, I'm more positive lately. I'm very happy about the 130 sampling wells, but why didn't they do this in 2005? That EPA guy was good, but now he's gone, and there is a new top guy in EPA, so we'll have to re-educate him.

3.1.6.2 Negative

- Negative. The plume is supposed to be completely contained by 2011, but they haven't met a date yet. If they were a private company, I would have fired them long ago.
- Very negative. There are too many project managers in a short time. They tell people what they think we want to hear and provide lots of information, but it's not the right information. There are at least three areas that are not contained.

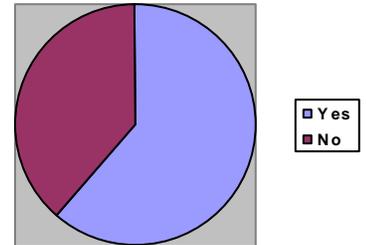
- The Corps says they are stressed by the meetings, but it's our health and community that is being affected. They did not do enough sampling before starting clean up. They shouldn't be spending money on these interviews when they can't even clean up the site. PCE [perchloroethene] and RDX are being drained down Johnson Creek, and the RAB had to beg them to put up signs so kids wouldn't play there. Signs are easy and inexpensive, yet it took them months to do that. They are always polite and say they hear our concerns, but they don't follow up. They don't even have maps.
- There is nothing good to say about the Corps. We pay them to take care of us, and they deny things. M.U.D. has wells all over, and they don't care that there's pollution. Why did RAB members have to lead the way to get the public wells tested? I'm not confident that my water will remain okay. If M.U.D. draws down the water, pollution could enter my well. I understand that everyone needs water and the large aquifer is large; but, if the plume gets in the aquifer, it's going to be really bad. Why do we get a new project manager every year? They say they're looking into something, but they never come back with answers. Why haven't they addressed the contamination in Johnson Creek? The ROD [record of decision] said they would, but they haven't.
 - I am disgusted at the way things are going. It seems the Corps tries to hide things. They don't tell us things. It's Lincoln/Omaha water supply, so it's ultimately a big problem. They are wasting a ton of water. They pump it out, but they don't put it back into the ground. It discharges to the stream.

3.1.6.3 Both

- Both. Communication with the public is fine, but direct involvement is not good. The monitoring wells are an example. They put in the first set of wells, and we should have gotten a payment back, but we didn't get it for a long time. Finally I met with people that were higher in command and this Kansas City officer took care of it for me because she had the power to make it happen. They were communicating with me when they wanted an easement, but then they never follow through. They're very bureaucratic. Nothing is timely.
- Positive and negative. I am upset about the lack of RAB meetings, and there seems to be a constant changing of personnel at the Corps. Every new person has to come to up to speed. It's positive that they are giving out information on the site. Where is the plume moving? A little knowledge is good. It's good to be tested often. I would like the lake to be tested.
- Both. The Corps has tried to keep in touch, but they need to be consistent and contact residents and interested citizens with meeting notices. Engineers just want to get the job done. They identify and address the problem and think they are done. They have to educate residents because the people are concerned or scared. The farmer with the sick wife doesn't know if it is related to the site. If he is made to feel foolish at a public meeting, he won't ask again, but his concerns don't go away. We just want to be reassured that issues affecting our homes and our families are being taken seriously and addressed adequately.

3.1.7 Satisfaction with Level of Information Received

Most of the people interviewed provided a response to the question of whether or not they felt they were satisfied with the level of information they were receiving. The specific responses to that question (other than yes or no) are provided below.



3.1.7.1 Yes

About 60 percent of the people interviewed indicated that they were satisfied with the level of information they were receiving. Some interviewees indicated that the situation had improved over previous years.

- Yes. The current level of information is good. Citizens have chosen not to be more involved. People ask me what is going on. It is hard when you have children and other obligations to get to meetings. People choose not to go to meetings. It's not that the Corps hasn't tried to inform people.
- Yes. The letters are adequate and sample reports are sent in timely manner.
- Yes. It's my own fault if I don't know more. I toured the site on a bus and I really liked that. Lisa always makes sure that I'm informed.
- We quite often get reports on tests and results, which make me feel the Corps is trying to keep on top of things.
- Yes. I believe the Corps is doing as much as they can right now.
- Yes, I am getting enough information. If something comes up, I want to know as quickly as possible.
- Yes, but I've taken a more proactive stance than some.
- Yes. I am getting enough information. More information just confuses things.
- Yes. I am satisfied. It's our own fault if we don't know. The Corps provides the information.
- Three years ago I wanted more information. Now, the Corps is going out of their way to keep the public informed.
- Communication has gotten better in the last year or two. I've received more notices about things that are going on.

3.1.7.2 No

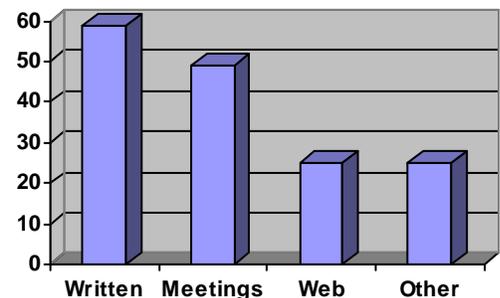
The remainder of the interviewees indicated that they would like to receive additional information about the site or that the type of information received was not appropriate. No one interviewed said they would like to receive less information.

- No. I would like more information. We do not have enough info about the site. The last map that I've seen is from October 2007. We need to see updated maps regularly. Also, the fact sheets are not accurate.
- I'm not getting any information now. Public Information meetings are worthless to me because I am not a scientist, and I don't research this. I don't know what questions to ask, so I rely upon RAB members. When I go to Public Info

- meetings, I go in, I look at the map, and I don't know what to ask. I want to see questions asked and then answered in order to make an informed decision.
- I would like more information. My perception from my neighbors is that it is being withheld. But I can't really say from my personal experience. I haven't received a thing from any agency. I'm surprised that when a well is so close to me, I haven't received more information. My neighbors can't sell their property, because they had to disclose a problem. Property values are a big concern. I would really like to understand what is happening with the M.U.D. wells and how this will affect the plume. It seems like the results can vary depending on who is paying for the study. Citizens don't have money like M.U.D. The Corps doesn't provide the answers. From an objective viewpoint, what is really happening?
 - I would like more information. I don't feel the Corps is giving us the whole story. They need to be more honest. I think that they're withholding information. For example, how far and how quickly the contamination has spread, and the affect the M.U.D. wells have.
 - No. I would like more information, but I don't know if I can absorb much more. My kids are involved in activities. I let people on RAB fight for me, but I would love more reading material via snail mail or e-mail.
 - No. I would like more information. It seems like there's been a breakdown in communication between the Corps and the citizens.
 - No. It's not the amount of information that needs to be changed, it's the delivery. RAB members brought up some concerns I was not aware of (I like RAB for these questions). The Corps needs to be honest and provide more explanation.
 - There's lots of info, but it's not the right info. What is the Corps going to do to get the site contained? Why does it take so long to get the sample results posted?

3.1.8 Preferred Way to Get Information

Most people interviewed had opinions on the best way to get information about the site to residents and other stakeholders. The most often cited options were written materials (59 percent) and meetings (41 percent). About 25 percent of the people suggested using the Internet (either Web sites or e-mails). However, many people thought that option would not work for them. Many people said they preferred a mix of options. Specific comments received on this topic are presented below.



3.1.8.1 Written Materials

Written materials were the most commonly cited communication tool in the interviews. Almost 60 percent of the respondents thought that letters and fact sheets were an excellent way to communicate. This was especially true for people who had mobility or hearing problems or who had conflicts with the meeting times. Several interviewees said that it is important that the materials are written so that they are easily understood by the target audience, and many people felt that the Corps is doing that.

Letters

- Letters are good. I can never make it to meetings. I can't think of a better way to communicate with folks.
- Letters are best. I trust the Corps to get in touch with me if there's any problem or something I should be aware of.
- Mail is good or the local newspaper.
- Send us letters and sample results.
- I like hardcopy letters.
- I think letters are great.
- I appreciate the letters we receive.
- I like conventionally mailed letters.
- Call or write us if there is something we need to know. Seniors are often hard of hearing, so letters are best, with follow-up phone calls if needed.

Fact Sheets or Newsletters

- A one-page fact sheet at least quarterly would be good. It should say what went on that quarter and what they hope to accomplish next.
- I suggest more direct mailings like newsletters and fact sheets. I think it would be helpful to have a pamphlet on historical things. People focus on today and may not realize how we got here.
- Fact sheets are great. They are very different than receiving a packet of info. If people are sent "raw" well monitoring data (as requested by a small group), it's just not useful to most. If you present what the data means today, what it has meant over time, and what it means in relation to other results (as with a fact sheet) it becomes valuable information.
- Mailing updates is very helpful. A newsletter is good. Ask residents for specific questions and tell them you will answer them in the next newsletter.
- Fact sheets have to be reader friendly and in a format that people enjoy reading.

Both

- Letters and fact sheets sent to my home are the best way to communicate.
- Fact sheets and letters are very helpful.
- Give us the updated news in letters and in a newsletter.
- Communicate directly with residents via letters, newsletters, flyers, emails. Make sure they are in plain language. Most people don't understand cleanup lingo. When they see a note like, "This element is out of range," they freak. Write a special letter to those folks explaining why there was a spike.

Other

- I read things published in the newspaper, and I visit in coffee shops. These are good ways to communicate
- Send a book or pamphlet of information to everyone potentially affected. There are not that many people, so it wouldn't be that expensive.

3.1.8.2 Meetings

About 40 percent of the people interviewed cited RAB meetings as a useful tool in communicating information about the site. Several people indicated that they were aware of the RAB meetings but preferred to get their information in other ways because of difficulty getting to the meetings.

Like Meetings

- The RAB meetings are a good idea. But, let me tell you what it's like. There are some people that get the farmers all riled up. The Corps can't present the facts clearly because of the wild claims.
- I think we should have a RAB meeting.
- I really want RAB.
- Continue to have meetings.
- Some people want more info, and these people should come to the meetings.
- We want RAB meetings. The Corps wanted to bring in a mediator who they picked. We should choose a mediator together. For years, the Corps ran the meetings and they like to be in control. But, when they were in control, we didn't get the wells in place. We really need both sides. People need to listen. It's give and take. The Corps needs to learn how to give a bit more.
- Of all the different types of communication, RAB meetings are by far the most effective. I can hear different sides and form an opinion.
- The meetings have been attended by many elderly people.
- The Corps must participate in RAB meetings.
- I'm retired and not as active as I used to be. Meetings are a really good way to communicate.
- For me, talking and listening is better than reading.

Don't Like Meetings

- RAB meetings are not a wise use of my time. But, I'm not a landowner, so my opinion should be taken with a grain of salt. I would like RAB more if I were the landowner or if I were more personally affected.
- I went to RAB meetings for 5 or 6 years. I think it's a bunch of mumbo jumbo that's above my head. They use terms that I'm not familiar with.
- Meetings happen locally and are hard to attend. I've been in and out of the hospital and it's just too hard to attend meetings.
- I just haven't had time to attend the meetings.
- I haven't gone to any public meetings. Between kids and work, we have just never been able to go.
- Many people are too busy to go to the meetings.

3.1.8.3 Internet or E-mail

People were split on their endorsement of e-mail as an effective communication method. About 25 percent of those interviewed were in favor of communicating via e-mail. They were generally individuals who worked in office environments and relied on e-mail in their daily duties. Those with the strongest dislike of e-mail were generally retired, or worked in occupations that did not use e-mail (e.g., homemaker or farmer).

Like Internet or E-mail

- E-mail is a good way to communicate with 50 percent of the folks.
- E-mail works very well for me.
- E-mails are really best for me.
- I love e-mails that I can check at midnight with links to websites and meeting notifications that I can drag and drop into my calendar. That said, I'm probably an anomaly because internet access isn't great out by Mead, and the older residents may not use the internet like I do.
- When something happens, the Corps lets me know by e-mail.
- I feel like I can e-mail the Corps. I feel good about the level of communication. I have not used their Web site, but I know it's there.
- The Corps' Web site is pretty good and should be maintained.

Do Not Like Internet or E-mail

- Not e-mail.
- I do not use e-mail.
- I do not do online stuff. My husband tried to but the computer blew up or something. Ugh, I hate computers.
- I don't use the Corps' Web site. Dial up is too hard and slow.
- Do not send e-mails. I don't even have Internet access.
- I hate e-mail. We don't even have e-mail at home.
- E-mail is not good for me. I just don't check it.
- Internet access is readily available, but lots of people around here don't have computers or won't pay \$30 a month. Information on the internet is good. But you can't just put everything out there because people misunderstand things.
- You could send documents electronically, but, many of these people are farmers that only use the computer for specific business functions such as buying seed.
- The Internet is not really helpful to me. The Corps needs to put timely and factual information on the Web site.

3.1.8.4 Other

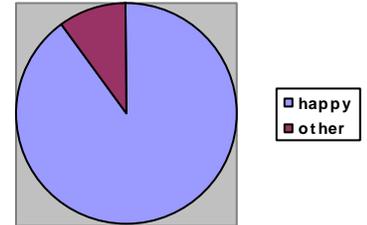
Various other methods of communication were cited as effective tools by about 25 percent of the people interviewed.

- Advertise on radio and put info in several libraries (maybe schools), not just the Mead Library (limited hours). Make presentations at schools, FFA [Future Farmers of America], and 4-H [Head, Heart, Hands and Health] and include them in updates and meeting notices.
- Everything should be available at the library. Also, people listen to their neighbors. Get young people talking and start educating them. They may become the neighbors that people are listening to.
- People that are more closely involved provide me with info, and we discuss it.
- The variety of media is good. Try to get to everyone one way or another. If people don't know about this, it's their own choice. There's always someone working out here, and you could ask them anything.

- Field trips are very interesting and helpful.
- I've attended both kinds of meetings, but I really like tours.
- I like phone calls.

3.1.9 Interest in Maintaining Current Level of Involvement

Almost 90 percent of the people interviewed were interested in maintaining their current level of involvement with activities at the site. Many of these people had other demands on their time and didn't feel that they could be more involved. Of the people who were not happy with their current involvement, most wanted to become more involved.



3.1.9.1 Maintain Current Level

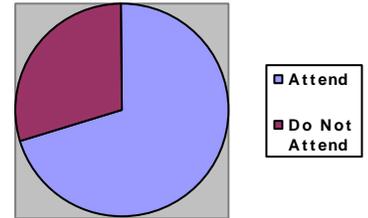
- I'm involved enough. It's my own fault that I don't keep up. I go to meetings, I get results from my wells, and I call them when I have concerns.
- I have the perfect level of involvement. I only really care about my property.
- It's really a government operation. I'm as involved as I can be.
- I really don't think the Corps can do any more than they're already doing.
- Happy with current level. The Corps tells me when things are going on.
- I'm happy with my current level of involvement. If I'm going to be more involved, I need to have the time to do a good job.
- I don't really see how the Corps could let citizens be more involved.
- Further involvement wouldn't really help. Many people aren't involved because it doesn't affect them. The squeaky wheel gets the grease, and there aren't enough of us to make a loud enough squeak.
- I don't understand how I could be more involved.
- I think it's our own fault if we don't get more involved. There are plenty of opportunities to get involved.
- Happy. It would be up to me to get more involved.
- Happy. I feel especially concerned and obligated to represent the people.
- I'm happy with my current level. I don't have time to be more involved.
- Happy. I try not to take sides.

3.1.9.2 Get More or Less Involved

- I would like to be more involved. Please send letters and/or call.
- I'd like to be more involved, but it's not the fault of the Corps. I just can't attend most meetings. I keep up by looking at materials put out by the Corps and others. I try to get a balanced picture.
- I would like to be on RAB. I feel fairly involved. I don't know if Corps has even verified who's on the RAB currently.
- I feel badly for not going to more meetings, but I can't blame the Corps for that. I don't always read what they send me. They try to keep me informed, but I can't even pronounce the words they use.
- I'd rather not be involved at all. But I feel like I have to be because the Corps is not doing their job. If they were, I could focus on other things.

3.1.10 Familiarity with Various Meetings

Almost 70 percent of the people interviewed had attended RAB or other meetings. Specific comments about meeting attendance are presented below.



Attend Meetings

- I liked the meetings and would like more.
- The meetings are informative. There are many meetings at convenient times, in convenient locations with charts and overheads. It's helpful.
- I have attended lots of meetings.

Do Not Attend Meetings

- I'd like to go to meetings, but I have other things going on.
- I haven't attended RAB or Open House because of demands in raising children and working odd shifts.
- No, I never attend meetings.
- None. It's my own fault that I haven't been to meetings.
- No, but it's my fault. The meetings have been inconvenient for me.

3.1.11 Suggestions for Improving Meetings

Many people felt strongly that there should be RAB meetings and Public Availability Sessions. Comments on how to improve the meetings most often referred to meeting length and meeting format. Also addressed were meeting frequency, location, materials, documentation, and follow-up. A summary of those responses is provided below .

3.1.11.1 RAB Meeting Length

The majority suggested that the RAB meetings were much too long, and that this made them less attractive to the average audience member. People generally believed that meetings should not last more than two hours. One person suggested breaking the meeting into segments to allow people to leave after their area of interest was addressed. Several people suggested that they start earlier in the evening, perhaps at 6 p.m. Specific comments regarding meeting length are presented below.

- They're too long, and there's too much for the Corps to respond to.
- The Corps should limit the length of the meetings to two hours max.
- Start the meetings at 6 p.m. Have meetings more often so that we can address all the concerns within a two-hour limit.
- RAB gives good questions, and I would like to see the meetings continue. But, until there is more control, I don't know if it is possible. They need to limit the meetings to two hours.
- Those meetings start at 6 or 7 p.m. and some of them go to midnight. That's crazy. The Corps makes a presentation, and then they get berated. The general public doesn't want to attend these meetings any more.

- I don't know how to make meetings shorter. The RAB's explanations are often really drawn out, but this is not what residents do for a living. We have to rely on experts to look at the data for us and give us their opinions.
- I like public gatherings where knowledgeable people ask questions so I can just listen. The Corps needs to answer questions. Maybe meetings could be broken into segments or held in close proximity on different days.
- Most meetings are too long.
- I've been to two meetings that lasted four hours. That's way too long. The Corps needs to isolate topics and organize in advance to ensure time is not wasted. More frequent meetings might help. They should rotate between RAB and Corps, if both are open to questions and will work together.
- The number of meetings that people will go to is limited. If you're on the board, it's interesting. If not, you might not want to listen to it all. At the four-hour meetings, control was lost and mud was thrown. The Corps needs to publish an agenda, set a two-hour meeting limit, and limit the time individuals can speak. Coordinate with RAB ahead of time to address questions on the agenda.
- The meetings need a small, clearly defined subject. Try to anticipate questions. For example, there could be a meeting exclusively on the study. Then the Corps should be able to answer, "Exactly how many water supply wells did you test?" The key people should come to the meeting and be able to answer all questions in lay terms, or the Corps' presenter should understand the info well enough to be able to answer all questions. A mother just wants to know if her kids are okay.
- The Corps should consider scheduling a shorter meeting about one specific issue. For example they might just discuss the results of test samples, the procedure, the amount of testing completed, etc. Follow-up via letter or e-mail would be ok.

3.1.11.2 RAB Meeting Format

Many people expressed concern that the RAB meetings seemed to be dominated by specific people. They felt this was detrimental and that it discouraged people from attending. The majority felt everyone deserved a chance to speak, but that some form of meeting order and control had to be established. Suggestions included setting an agenda in advance and using a meeting facilitator to allow people to speak in an orderly manner. Specific comments heard on this issue are provided below.

- RAB meetings are rancorous at times. Most people are concerned about the effects of M.U.D. wells. A small group is extremely concerned, but I suspect most people are neutral. Activists dig deeper and have found things the Corps has missed, but they sometimes exaggerate. Also, they interrupt continually. The Corps needs to do something. A facilitator might be needed.
- It's great to get information, and I appreciate the questions, but it's too radical. Someone always takes over the agenda. RAB members have small children, so it makes sense that they are more concerned, but the Corps has to get control. The activists won't even let the Corps answer a question. I don't know what they want. A high cancer rate is a valid concern, but what do they want the Corps to do? The attorney says "Don't interrupt!" but she interrupts the Corps all the

- time. RAB members say that there is not enough communication, but when the Corps has meetings, it is all RAB communication.
- The Corps needs to participate in legally convened meetings, like the RAB. The RAB adopted operating procedures according to law, and the Corps doesn't have a right to vote on them. RAB members are trying to ask direct questions. We don't need a facilitator. We aren't monsters, just very concerned citizens.
 - The lawyer monopolizes the meetings and is a hindrance to people who want to learn. People leave early because of her. We should be able to have an organized meeting. Give everyone a chance to be on the agenda for a defined period. At the last meeting, EPA explained why the Corps wasn't coming and tried to ask the lawyer how to work together, but RAB attacked him. No one came to RAB meetings for years. Then the M.U.D. well field came and everyone is freaking out.
 - Sometimes it's like RAB meetings are a bitch session. The Corps could counter this by posting the agenda locally at least 24 hours prior and then sticking to it. Open Meeting laws specify how this can happen. Citizens get X minutes to speak, and when the time's up, it's up. The meetings are a crazy free-for-all.
 - Local agitators keep people until midnight and bring a lot of theatrics to the meeting. Give them a specific window of time to address concerns.
 - The meetings are horribly unorganized. The Corps should post agenda items and time for discussion. Time limits would be excellent. No one can absorb that much in one sitting. Maybe break meetings into two parts: new info first, then a break, and then a rehash of some of the older info. I wish the Corps and the RAB could work things out.
 - People towards the river bottom don't like anything, and they harass the Corps. When the Corps makes them mad, they don't want to cooperate. That group with the lawyer created problems. I don't like to choose sides.
 - The Corps has been asked some very touchy questions by the lawyer. She is too radical. They need someone that is more middle ground.
 - I don't go any more because the RAB controls the meetings. The Corps needs to get a moderator, because RAB members are outspoken, strong willed, and unruly (in an area that's full of abnormally polite people). A moderator might be able to stop the catfights.

3.1.11.3 Meeting Frequency, Location, Materials, Documentation, and Follow-Up

- They need to have quarterly RAB meetings.
- Semi-annual meetings are not enough. It has to be at least quarterly.
- Have more meetings.
- We haven't had a RAB meeting in 2 years. The RAB meetings are long and drawn out, but you hear some information that you wouldn't otherwise hear. More frequent meetings with time limits would be good. Now, they're feuding about a mediator. I don't care. I just want a RAB meeting.
- There will always be a small component who doesn't like anything the Corps is doing. The Corps could try more meetings to report incremental milestones (such as a meeting covering the potential impact to water supply wells).

- The Corps needs to inform people of the meetings well in advance (maybe a month). Meeting rooms are often not large enough to hold everyone.
- The Corps needs to be more efficient and come back with answers. If there are unanswered questions and the meeting is over, they should write down the questions and answer via phone or mail.
- The Corps needs to have RAB meetings quarterly or more often. It's a violation of their Interagency Agreement with EPA if they don't. RAB meetings are the law. Give citizens all the information. Include handouts. Put minutes from all internal meetings at Nebraska DEQ [Department of Environmental Quality]. Use the most current maps.
- Meetings in Ashland are better than meetings in Mead.

3.1.11.4 Public Availability Sessions

- The Public Availability meetings are good, but they don't have good attendance.
- I think it's good to keep holding the Public Availability Sessions.
- The Corps' information meetings are not helpful.

3.1.12 Other Thoughts or Questions on the Site

This was an open ended question that was used to close the interviews. It was a last chance for people to provide information on something that was important to them. Many people reiterated concerns that they had expressed at other points in the interview. Comments have been grouped loosely by topic and include the following:

- M.U.D. wells
- Location and migration of plume
- Communication
- Information provided
- Trust
- Corps staffing

Several people also asked that the Corps answer specific questions and concerns; those questions and concerns are presented below.

3.1.12.1 M.U.D. Wells

- It seems that there are different rules for different parties. For example, a farmer can only put in 2 to 3 wells in a square mile, but M.U.D. can put in 200 to 300 wells in the same area. M.U.D. starts pumping water to Omaha and drops the groundwater level. The community has been fighting with M.U.D. since 1986. When M.U.D. pumps water, the contaminant plume moves toward my property.
- Many people have a big concern with the M.U.D. well field. Over 60 municipal wells were sunk in 2006 and pumping began in 2008. Farmers are very concerned with what will happen as the aquifer declines. Will the plume be kept in containment? Will the farmers have enough water? There are cones of depression as far as 2 miles away that could influence the plume. Now that M.U.D. is pumping, maybe the lush wet meadows will be more dependent on rainfall. Will the plume be pulled into domestic wells? The plans are to pump 15-20 million

- The Corps is adding more monitoring wells. They added some up north which is good. But I'm concerned that the M.U.D. is going to pull the plume down onto our land. I think the M.U.D. wells will change things.
- The Corps doesn't have anything to do with the M.U.D. wells going in. When M.U.D. went in, there were concerns that it would deplete the groundwater and/or draw the plume onto people's property. But M.U.D. has to pump water. There are 400,000 people that need water.

3.1.12.2 Location and Migration Potential of Plume

- The site is not contained, and the community is very concerned that the contamination is moving toward the well fields.
- The Corps needs to stop the plumes from going further. I don't see how M.U.D. is going to help. There is a cone-shaped depression where people irrigate, and contaminants can concentrate. What about fertilizers? A filter here and there doesn't help if the water is just getting contaminated elsewhere.
- I am tickled that they are finally checking 130 wells. We'll be surprised if the plume doesn't move. They gave houses east of the wells bottled water in 1992 and then filters. But Load Line 1 got farther south than they realized, and the heavy contamination clogged up the filters. The contamination has spread, and people are concerned. TCE and RDX are serious, especially if people don't know they are there. There is a lot of cancer in the area. It's hard to tell who will get it. We're so concerned that it's sneaking through somewhere.
- We've asked the Corps to put in a rural pipeline and give everyone water if their wells are contaminated. Residents have tried to work with the Corps, but our farms just aren't a priority. The contamination has been creeping up. It's out of control and that doesn't make me feel safe about our water. I've tried to talk to them, but they don't hear our concern. They're set on doing what they want to do. But we want more help.
- Build a tertiary treatment plant. It would be expensive, but would guarantee clean water. Citizens shouldn't just hire attorneys. They should read what's already out there. They should bring specific concerns to the meeting and ask good questions. Also, they need to realize property values are tanking all over right now. It's not just their property because of this site.

3.1.12.3 Communication

- The Corps has been fairly good at communicating. The distraction during meetings is not their fault. The Corps was trying to deliver information, but they are verbally attacked.
- People are cordial and answer all my questions.
- The Corps has been upfront with us. Once RAB started, they were constantly being attacked. The county, NRD, and the Corps worked closely together on the dirt cleanup, and used to have meetings prior to RAB meetings in Lincoln. RAB doesn't represent all citizens. Get the information out to the people. Continue to

- The Corps is doing the best job that they can.
- The Corps has to ease people's fears. In the beginning, farmers didn't want government guys ruining their property values. Now they can test within a mile, and it's a lot better. I'm not sure carbon filters were necessary, but they did it to ease public concern. Overall, they are doing the best job they can.
- Many community members are veterans. When the Corps comes in with officers, it's imposing. That colonel should come back in civilian clothes and find out what the community has to say. Get feedback. The community is full of fear and frustration because they wonder if the Corps is being honest, is doing everything it can, and is concerned. Most community members respect authority and are not going to question the Corps, but they are afraid they are not being taken care of.
- Part of the Corps's problem is they haven't worked with an environmental attorney representing citizens. Test people's water. Don't muzzle the public. Citizens may not be experts, but they're reasonably intelligent. If you explain things, you'll go a long way in working more effectively with the public. The Corps tones down the information. It's really very dangerous.
- The Corps should reach out to the next generation. Not only will some of them take over the farm, but they are potential employees. It could be a PR move and potentially a recruitment of the best and brightest for the Corps.
- The Corps is doing everything that they can, but there are hot spots now that are much hotter than they had been. They need to mail out a monthly or quarterly flyer, try to get on better terms with RAB. Let us know what is really happening and how they know they have a handle on it.
- People are scared, and they don't understand the science. Some of the ag people have a better handle on it, and they have worked with the Corps and have gotten a significant benefit. That's great for them.
- The Corps brings in professors and people with degrees, but it seems like their common sense is in left field. They can't talk to normal people.

3.1.12.4 Information Provided

- The volume of information is overwhelming. The site history doesn't matter to me. The only thing that matters is where is the contamination? Where is it moving and how are you going to deal with what is happening?
- The military doesn't know how to talk to the public. There's no cross-reference on their maps, so they are hard to read. They need to do a better job of letting people know where the plume is. I haven't seen a good diagram of RDX. I can't tell where it is from my place. I don't see roads or land ownership, so I don't see how it relates to anything on the ground.
- There is a creek on site with signs that say "Don't eat fish, don't swim." But a mile up from my place and a mile down, there're no signs. Did the fish get better? This was a natural spring, and I used to fish there all the time. So why are there signs there now after they've been pumping for 2 years? Why didn't I get a letter or why wasn't there some sort of notice in the paper that said "the creek is contaminated and here's why things changed?"

- As long as the Corps presents information in a way that the community can understand, most of the community is great to work with. They are just concerned for their families and want to know how it will affect them. There are always people that want to find a problem with everything and slow things down. The Corps might want to ask “How do we win your confidence back?” Maybe they need to re-educate people. They could explain why they started the work, what they’ve accomplished, mistakes made, why people should have confidence, and what they are tasked to do by the ROD. They could ask what more people would like to see from the Corps.
- There’s a lack of providing information. The Corps needs to answer questions directly. Don’t give us open-ended answers.
- Sometimes the information is over people’s heads. Last time they did a decent job of presenting information. People don’t want to appear stupid, so they won’t ask questions. I don’t know if it’s a Nebraska trait or a farmer trait, but that’s how people are.
- I don’t think the Corps really knows what all they’re dealing with, and so they don’t put out information. There are other problems too that are maybe compounding this problem.
- As long as they’re testing, we’d like to know what’s going on. Tell us where you are in the clean-up process and give us regularly updated maps.
- The Corps says they’ll get back to us, but they don’t get back to us or they come back with incomplete answers. The people closest to the plume really need information. Maybe go visit them. It’s hard to attend meetings, and you can’t get that much information by reading a fact sheet.
- I would like to see a diagram of how close the contamination is. I want to see a map of the area and see how close this is to my property. What does that mean for me? Even though my well is not contaminated, could it be later? If so, is it just a matter of a new well, or will we have to replace septic too? And, if my property is contaminated, who is financially responsible for cleanup?
- Two years ago, I saw a plot map of the plume. I’d like to see another. I’d like to see maps that track the plume over time. I wish that the Corps would tell us when it’s even close because, with M.U.D. and irrigation, it seems very likely the plume will move. Farmers will do almost anything for a maximum yield.

3.1.12.5 Trust

- No one wants to drink water that’s contaminated. I trust the Corps to do their job. They’ve done a good job, and I am thankful for their presence.
- When the Corps says “The M.U.D. wells aren’t going to affect the plume” it seems dishonest. They should say, “We don’t know.” They’ve lost the confidence of a lot of people because they just “go by the book” without relying upon the expertise of residents who have lived there for many years. Engineers think they are smart because they went to college, but they need to listen to residents more, they need to communicate more effectively.
- Some people have the impression that the Corps just spends time trying to cover up things. I don’t know if that is true. Are they reluctant to share information that might be preliminary? Or do they just not know what is going on?

- Four years ago, they told residents that the plume was contained, but then it came out that it was not. They told us that the water goes through a filter plant and is safe to drink, but then they started giving people bottled water. They just tell people what they think the people want to hear. They need to start being truthful and see if they can build back trust.
- The Corps talks about how the plume is contained, but they keep finding more areas. Why didn't they find them the first time? They just found more contaminants in a garbage dump. Wouldn't you expect that some might have wound up in the dump if people are potentially taking contaminated soils there?
- The Corps needs to explain that the ROD says that the only thing they are tasked with doing is "containing the plume within a set area." While EPA would like them to address the contaminant source, the Corps is not tasked with doing that.
- There is one group that just doesn't trust the Corps. It's not a personal thing.
- People don't believe the Corps. Their credibility issues stem from some of them being rude, cutting people off at meetings, and not answering questions. They did not find contamination that went beyond the wells. They need to be up front and talk in language that people understand. When they don't answer a question immediately, it freaks people out, and they snowball it in their heads to be much worse than it is.
- In order to win back trust, the Corps needs to release information diplomatically to RAB and the public. Stop trying to control things. Don't say "if you talk out of turn, you don't get recognized." If they don't know the answer, they should say "we'll get back to you." They should act like they care about what RAB thinks.
- I work 60 hour weeks. I trust the Corps to keep me informed. As long as the water is okay, let's call it good.

3.1.12.6 Staffing

- Every few years, there is a new project manager, and all the people working on the project change. There needs to be more stability. The new managers need time to come up-to-speed, and then they're gone.
- The Corps needs a good project manager. This is their 8th or 9th one in 11 years. Every one of them has to get up to speed, and they start from scratch, so they accomplish nothing by the time they leave.
- I would like to trust this new project manager. I can see why she is doing outreach, but the Corps needs to show with their actions that they are truly concerned for the citizens.

3.1.12.7 Specific Questions for the Corps

- Why are they testing more now, and why are they more concerned now than they were 50 years ago? The same thing has always been going on. There are drillers all over the university property right now. What are they doing?
- Is it safe to eat the ducks that land in the private lakes on property near the site?
- Last summer all the fish in our private pond died. Why? Can you test the water?
- Will owners be compensated for a loss in quantity/quality of pond water?
- In July 2007, M.U.D. well #MW06-030B was found to have 24DNT [2, 4-dinitrotoluene] in it. How will the Corps address this?

- In a letter dated 12/21/2007, the Corps demanded that RAB hold non-public meetings. Why can't the Corps participate in public meetings?
- Johnson Creek has untreated water, which is a violation of the ROD. Why hasn't the Corps done anything about this?
- Why is Load Line 1 out of containment still? RAB told the Corps 3 years ago that it wasn't going to work, but it still hasn't been addressed. Load line 3 and Load Line 4 are out of containment also.
- How much is the Corps paying CDM to do these interviews? Why has this money not been spent on boreholes?
- Why can't the Corps inject something into the soil and neutralize the contaminants? The fertilizer that many farmers use is also a source of contaminants, so why don't they put activated charcoal filters on all the sprinkler heads and at least prevent more contamination and/or potential reactions with the existing contaminants? If the water is depleted or contaminated, then the Corps needs to work with the appropriate parties to treat it and use it.

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Section 4 Results of Agency Interviews

The stakeholder interviews yielded many suggestions and opportunities for improving communication at the site. However, to develop suggestions for the Corps, CDM needed to interview past project personnel to determine what had been done previously to communicate and interact with the public. The Corps provided a list of five Corps personnel who had worked at the site. CDM was able to interview three of those people, and the results of those interviews are summarized below. The period of time covered by these interviews was roughly 2003 to 2009.

4.1 Background

The interviewees indicated that activities at the site for the period in question have remained fairly stable (i.e., containment and monitoring of the contaminant plume). The Corps' contractors operate a pump and treat system at the site and sample drinking water from about 100 wells at various residential and other properties in the area. Both the pump and treat systems and the number of homes being monitored have expanded over time.

No Corps personnel are stationed on the site, and site activities are run from the Kansas City District Office. Contact between local citizens and the Corps is limited primarily to face-to-face contact at RAB meetings and public availability sessions or written contact via sample results letters and (recently) fact sheets. The Corps' contractors interface with a large number of local residents at least once or twice a year when they sample local well water.

4.2 Major Issues

The Corps personnel interviewed said that the most contentious issue at the site was the installation and pumping of the M.U.D. wells. Specifically, the issue was how pumping of those wells might impact the availability of water in the local area. Corps interviewees said some people had tried unsuccessfully to stop the installation of the M.U.D. wells during the planning and permitting stages in the 1990s by raising water quantity issues. Now, that energy was being directed at trying to stop the pumping of those wells by raising water quality issues. The Corps interviewees said that they did not believe that the pumping of the M.U.D. wells was a threat to the containment of the contaminant plume.

The Corps interviewees believe that they have been diligent in meeting the Corps' responsibilities in containing the plume. They feel that, as at any environmental site, information is revealed over time as more data are gathered. Because of this, it is not unusual for environmental models and assumptions to be adjusted to meet project goals (e.g., protection of human health and the environment). They feel that several community representatives of the RAB look for opportunities to provoke controversy because of the unhappiness with the M.U.D. wells and the water quantity issue. This

atmosphere makes it difficult for the Corps to share information with the RAB in a give and take manner as was envisioned in the RAB guidance issued jointly by the by the Department of Defense (DOD) and EPA (DOD/EPA, 1994).

For instance, the Corps, its contractors, and the regulatory agencies originally believed the contaminant plume was one large, evenly shaped plume (based on sampling results in the investigation and design phase). However, an additional monitoring well designed to intercept any movement of the plume beyond its expected boundary provided results that indicated that the plume had already extended well beyond that point. The Corps verified that finding with subsequent samples, installed additional wells, and updated its monitoring network to accommodate the new understanding of the plume. The Corps also presented its findings at several RAB meetings, stating that its original understanding of the plume was mistaken. This took several quarters to accomplish. The Corps personnel interviewed feel such an example shows that the scientific process works at the site. However, some members of the RAB contend that the Corps should have known where the plume was and that it took too long to react to the additional information once it was received. These RAB members have called the Corps incompetent and cite this instance as an example of how pumping of the M.U.D. wells could impact the plume, despite the Corps' belief to the contrary.

4.3 Outreach Activities

In 2003, outreach activities originally were limited to participation in RAB meetings. Until 2007, RAB meetings were held quarterly and preparation for them was time intensive. In 2007, the Corps suspended the RAB meetings due to ongoing conflicts over meeting format.

The Corps' budget for outreach has been relatively small, with no specific person assigned to provide outreach for the site. Because the Corps' internal public participation people cover the entire district, they do not have significant amounts of time to spend on any given site. A Web site was introduced in 2004 or 2005, but it was not advertised or updated on a regular basis. Fact sheets were occasionally produced and distributed as handouts at meetings. These fact sheets were not mailed to local citizens until about 2008. Public availability sessions were added a few years ago as an enhancement to the RAB meetings. Public availability sessions were held in the same location as RAB meetings in the hours immediately preceding the meeting. These sessions gave community members an opportunity for people to come in and discuss any questions or concerns they might have with project staff. However, attendance was sparse, as the meetings were not widely advertised to the public.

Meetings were announced in the newsletters for several years; however, meetings have not been advertised in the local newspapers until very recently. The most recent open house meeting was advertised with a display ad in the Ashland and Wahoo newspapers. The Corps now issues press releases prior to the meetings. Each press release goes to all the surrounding newspapers, television, and radio stations and is posted on the former NOP site Web site.

The Corps interviewees said that they wished more opportunities for outreach had been available. They said the Corps should advertise meetings in local newspapers, develop messages, follow-up on questions asked, mail fact sheets, and interview citizens.

4.4 Relationship with Other Members of the RAB

The interviewees reported that the relationship of the Corps with the other RAB members (both community and agency members) was originally very good. Meetings were held on a regular basis, and information was exchanged without much disagreement or concern. However, in the early 2000s, that relationship began to change. Concerns about the M.U.D. wells began to escalate among certain RAB members, and it became apparent that the water quantity issues were not going to stop the installation of the wells. An environmental attorney was hired to assist several of the community RAB members, and the meetings began to get longer and more contentious. Many of the original RAB members left the board.

Corps interviewees reported that many RAB meeting attendees and other RAB members expressed support of the Corps in private; however, the tone of the meetings kept them from stepping forward at the RAB meetings. The Corps personnel interviewed felt that certain members of the RAB took over the agenda of the RAB meetings, preventing average citizens from getting a chance to speak. The Corps' requests for a meeting facilitator were rejected as being illegal by certain community RAB representatives.

At least one project manager wanted to dissolve the RAB as early as 2004, but the Corps decided to continue with the meetings. In 2007, after a 4-hour RAB meeting, the Corps decided to temporarily suspend the meetings. Several community representatives of the RAB continued to hold meetings without the Corps in 2008. The Corps indicated that these were not official meetings, as there was no Corps participation. Thus, the Corps is not allowed to provide financial assistance for such meetings. The Corps attempted to restart the RAB meetings in February 2009 but was not successful (see Section 5.3.3).

The Corps interviewees said they did not believe the relationship with the community RAB representatives could be improved substantially, at least without some form of mediation. When asked if they thought that disbanding the current RAB and starting again in a year or so might make an improvement, they were not sure. Corps interviewees suspected the same people would probably apply for positions on the new RAB, and the process would repeat itself.

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Section 5 Summary and Recommendations for Improving Communication

This section provides recommendations for improving communication at the site, including identification of communication goals and steps to achieve those goals. As requested, this section evaluates the feasibility of using the services of a neutral, third-party to facilitate one or more of the RAB meetings to assist members in developing operating procedures and/or ground rules and designing a workable meeting format. This section also evaluates any other options or activities that might help to resolve the issues identified during the interviews.

5.1 Summary of Community Interview Results

In general, people living on or near the site have lived in the area for a very long time. Most residents have a connection to the land, either through agriculture or their ancestry. Many of the interviewees are older and may have age-related difficulties with communication that need to be addressed (e.g., difficulty hearing, difficulty driving at night, and a basic unfamiliarity with and distrust of computers and the Internet.) All of the people interviewed considered themselves to be familiar with the site. The majority of the interviewees said they had a moderate level of concern about the site. Most were interested in maintaining their current level of involvement with activities at the site. A small group of people are very involved in activities at the site.

Many common issues were raised by interviewees about how they view the site and the Corps. These issues are grouped below by the following categories: concerns about the site, need for information, opinion of the Corps, and interest in meetings. Understanding these commonalities is important and necessary to planning effective communication.

5.1.1 Site Concerns

- Most people interviewed identified one or more site-related concerns, with groundwater contamination and plume movement being the most common.
- People are very concerned about the effects of the M.U.D. wells (impacts to plume movement or reduced water for farmers).
- Other concerns were cancer, contamination in Johnson Creek, and impacts on property values.

5.1.2 Need for Information

- Most interviewees said they were satisfied with the level of information they were receiving, and some indicated the situation had improved.

- For people who said more information is necessary, their main request was for the Corps to clearly explain where contamination is in relation to their property and what test results meant to them. They wanted regular updates on plume location and movement.
- Some people said the maps provided by the Corps were difficult to read and did not have features identified that made them useful for the lay person.
- Several people said the information provided was too technical and did not address residents' concerns.
- Several people said the Information Repository hours are too short.
- Most people said the best way to deliver information was through written materials sent to homes or handed out in meetings. However, other interviewees preferred attending meetings, especially those who wanted more details. A mix of communication methods is needed. Using Web sites or e-mails were options suggested by younger people.

5.1.3 Opinion of the Corps

- Most people rated their interactions with the Corp as positive or neutral, mainly through sampling on their property or attendance at meetings. The majority of those interviewed who expressed an opinion on the work being done said it was positive.
- Many people believe the Corps will tell them if there are things to be concerned about. These people often had a relationship with the Corps based on regular contact via well sampling, newsletters, and the delivery of sampling results.
- A smaller group said they believe the Corps is hiding information or is not seeking the information needed to answer questions about the contaminant plume. These interviewees believe the Corps fails to provide answers, provides conflicting answers, or otherwise falls short of providing the information needed. Most of these people interacted with the Corps primarily through RAB meetings.
- Although the Corps' site personnel were not involved in the M.U.D. decision, the anger directed at the permit granted to M.U.D. is affecting the relationship between the Corps and the community.

5.1.4 Interest in Meetings

- Many people felt strongly that RAB meetings should continue and said the RAB performed a useful service.
- The majority said RAB meetings were too long, making them less attractive to the average person. These interviewees believed meetings should not last more than two hours, and several people suggested that the meetings start earlier.

- Many people felt strongly that a structured format is needed to prevent meetings from being dominated by one or more individuals (i.e., setting an agenda and using a neutral, third-party facilitator).
- Several people said questions asked in RAB meetings were not answered by the Corps, and that the Corps needed to follow-up later with answers. A few RAB members felt that the Corps needed to provide all answers at the meetings because answering later allowed the Corps to “make up a good answer.”
- Some people stated that people in the community were intimidated by experts brought in by the Corps or by the uniforms worn by Corps officers during meetings.

5.2 Summary of Interviews with Past Project Managers

- Corps personnel said that the most contentious issue at the site was the installation and pumping of the M.U.D. wells. Corps interviewees said that issue was the driver for most disagreements between the Corps and the community RAB members.
- Personnel interviewed believed their work at the site had been of high quality and that they were meeting their responsibilities in containing and monitoring the contaminant plume.
- The Corps personnel believed the pumping of the M.U.D. wells was not a threat to the containment of the contaminant plume.
- They believe that the public did not understand the uncertainty associated with environmental sites. They said that some RAB members exploited that for their own purposes, making it impossible for the Corps to share information with the RAB in a non-adversarial environment.
- Corps personnel said there has been relatively little time or money invested in outreach at the site. Various outreach methods had been tried but not in a consistent or long-term manner.
- They said that prior to the M.U.D. issue, the relationship between the Corps and the community RAB members had been productive, but i However, the relationship is now unworkable, and efforts to improve it (e.g., hiring a facilitator) have been rejected by certain members of the RAB.
- Corps personnel believed the decision to suspend the RAB meetings was a justified and that there was little hope for improving the situation given the interests of the most vocal members of the RAB.
- The Corps interviewees believed the Corps’ relationship with the community at large was good.

5.3 Goals for Improving Communication

Based on the results of the interviews with the stakeholders and the Corps personnel, it appears that the Corps is meeting its obligations for communication at the site. It has public meetings, newsletters, a Web site, a contact person for questions, an information repository, and a RAB (although the meetings are currently suspended). In general, the opinion of the Corps in the community seems to be positive.

Although the Corps is making a good effort to communicate with the public, there is room for improvement. Improving communication with the public is especially important given what may turn out to be irreconcilable differences with the community members of the RAB. To focus the suggested activities, CDM developed three communication goals for the site:

- Meet the stakeholders' needs for interaction and communication
- Increase trust
- Reevaluate the viability of the RAB

These goals address areas where there may be major opportunities for progress. The goals are attainable, but it will require the long-term commitment of the Corps, the RAB, and the other stakeholders to make them wholly successful. Improving communications at an environmental site can often seem like a luxury when basic needs are being met, especially with the limited resources available to the Corps and the other demands placed on their personnel. Indeed, if the RAB was functioning as envisioned, many of these suggestions could be considered extras rather than necessities. However, given the current situation, a commitment by the Corps of the resources necessary to implement at least some of the steps identified in this report seems a prudent investment in the long-term success of the project.

5.3.1 Meet the Stakeholders' Needs for Interaction and Communication

The most important communication goal at the site is to meet the stakeholders' needs for interaction and communication. Keeping everyone informed and involved will help limit the spread of rumors and suspicion about what the Corps may or may not be doing. It is clear that the Corps has made significant efforts in engaging the stakeholders in the past and continues to do so. However, there is always room for improvement. Feedback from the local community indicates that there are areas where small efforts could potentially result in significant gains.

The majority of the people interviewed said that their information needs were largely being met, and they were happy with their current level of involvement. This was especially true for agency stakeholders. The exception was several community representatives from the RAB who wanted more information and felt strongly that the Corps needed to once again hold regularly scheduled RAB meetings. This issue is addressed in Section 5.3.3.

Although most people interviewed said they were happy with the level of information they were receiving, it was clear from the overall comments that many residents needed more information. There were many questions asked or statements made repeatedly that indicated the Corps could benefit from adding additional information tools to its communication program. The newsletter that the Corps currently sends out was appreciated by many people; however, the newsletter has not been sent out often enough yet to be something that the audience looks to as a resource.

Also, it is not possible for a newsletter format to meet the varying information needs of the many different site stakeholders. For example, some people wanted very specific information on where the contaminant plume was, while others wanted to know about any health concerns at Johnson Creek. Others wanted to know what concentrations of contaminants in groundwater would trigger an alternate drinking water source and the details of such a source (e.g., what would it be, who would provide it, how long would it continue?). The M.U.D. wells are also an issue of great interest to many people.

The issues listed above could be addressed with a series of informational handouts based on information that has already been put together for past meetings or reports. These handouts (e.g., one-page flyers or tri-fold brochures) could be displayed at public meetings for people to pick up as desired. The handouts could also be mailed to homes, or given out by the Corps at public events or by their contractors during visits to local properties (e.g., during well sampling).

In addition to handouts, the Corps should try other tools to increase public awareness of the work it is doing. These tools could include additional meetings; questions and answer (Q&A) ads in the newspaper; occasional presentations to community groups (e.g., garden club, Rotary, Elks, etc.); outreach to youth; and increased interaction with the media. To decide how to best provide information, the Corps should continue to take into account the needs of the particular target audience and their limitations.

To effectively address most topics of interest the Corps will need to employ several delivery methods of varying levels of complexity. For example, if the Corps wanted to educate people on the movement of the plume, it might use the following outreach scenario for a public meeting:

- Announce the public meeting in the Corps newsletter, provide a newspaper ad, mail a postcard, and/or issue a press release at least two weeks before the event.
- Run a Q&A ad on the contaminant plume the week before the meeting and issue a press release announcing the meeting and the topic of discussion.
- Give a brief PowerPoint presentation at the public meeting followed by an opportunity for questions.
- Give people the opportunity to mingle (open house style) at various tables where they can talk to staff, pick up a variety of handouts, look at posted maps, pick up any kid-related materials, and post questions on flip charts.
- Follow up after the meeting on questions that were asked (post them in the Corps newsletter and on the Web site, call, or write a letter).

This enhanced outreach method does not necessarily have to require a significantly larger amount of time or money, as the Corps already does much of what is outlined above, including announcing the meeting in the newsletter, issuing the press release, providing the open house mingling opportunities, and following up on questions asked. Increasing the number and quality of handouts is perhaps the biggest added expenditure, but these handouts can be created over a period of time and should not take more than a few days per handout (at most) to create. Increasing exposure by advertising the meetings and using press releases to get necessary information to the public requires minimal time and cost. Giving a presentation at the start of the meeting can give people something to talk about when they visit the tables, and it does not take more time or effort. Asking people who visit each table what their concerns are and writing them on a flip chart is a free and effective way to stimulate conversation and capture concerns.

For people who do not attend meetings, outreach activities to educate them on the movement of the plume could include: mailing a map, letter, and/or handout; speaking to local groups; or talking face-to-face during sampling visits. These methods are relatively inexpensive and can be implemented slowly. The Corps should not overlook the opportunities for building goodwill and educating future citizens by engaging local youth. Not only is involving a younger audience a positive step for community involvement, but the exercise of writing about the site on a level that children can understand is useful in identifying the essential basics of the site. This is useful in communicating with adults who may not have the time or interest in the site to read detailed information, but who still would like to keep up to date on what is happening.

All outreach techniques need to be implemented repeatedly over an extended period of time using a variety of techniques. Messages need to be stable, easy to understand, and must be repeated again and again. It is human nature to mistakenly believe that explaining something once, or even twice, is sufficient to ensure understanding. In reality, people have many distractions and time demands. As a result, they may not pay attention until they perceive the issue is relevant to them. This is why communication tools such as brochures, handouts, and maps are so useful. When someone finally comes around to wanting to learn more about the site or a particular issue, there is an information piece to put in their hand. Finally, the success of outreach techniques needs to be measured regularly by soliciting feedback as to whether or not the effort was successful. Suggestions for various outreach techniques that could be of use at the site are provided in Section 5.4.

5.3.2 Increase Trust

The second most important goal in improving communication at the site is to increase trust. At any contentious environmental site, there are varying levels of trust within the community about the work being done. This site is no different. By understanding and paying attention to these concerns, the Corps has an opportunity to increase the level of trust in what they do.

Many people interviewed said they trust the Corps. This was especially true of agency stakeholders who had a good understanding of the issues associated with the contamination and the CERCLA process. It was also true of community members who had developed a relationship with samplers or other Corps representatives. However, several people also spoke of a loss of confidence in the Corps or government in general. Some of this loss is due to issues beyond the Corps' control (e.g., M.U.D. wells), but there were some problems that involve the Corps' actions or the community's perception of those actions. It was mentioned that the Corps had missed problems related to mustard gas and to the movement of the plume. If the Corps does not explain the details related to those examples, it allows others to create the perception that the Corps does not know what it is doing.

In working to increase the community's trust, it would be helpful to identify where the Corps could best focus its energy with the best opportunity for improvement. At the site, the audiences can be roughly divided into three groups based on their current level of trust in the Corps: high, low, and unsure (see Table 5-1, below). The third group is the one on which the Corps should focus the bulk of its efforts to improve trust. Providing people in this group with the information they need to make informed decisions for themselves will help to build a relationship of trust and credibility. Those efforts will further solidify trust with people who already believe in the Corps and may have a small positive impact on people who distrust the Corps.

The most important thing the Corps can do at the site to increase trust is to increase its contact with the community, especially with the group that is unsure about how it feels about the Corps. Almost universally, trust increases as positive contact increases (especially personal contact). To do this, the Corps should continue its current outreach activities (e.g., face-to-face interactions with land owners, public availability meetings, and newsletters) and trying new communication methods. This may be difficult at a site where no local Corps personnel are present, but it can be achieved.

The Corps needs to ensure that the community knows what the Corps is required to do under the ROD. Although other issues may be of legitimate concern to the community, if those issues are beyond the scope of what the Corps is required to address and the community may waste time and energy pursuing the Corps for something it cannot change. This misunderstanding builds bad feelings on both sides. The Corps should continue to provide information needed in a manner that shows it is competent, caring, and responsive. Potentially useful tools for more frequent and effective communication, as well as example messages for increasing trust, are provided in Section 5.4.

Table 5-1 Opportunities for Increasing Trust at the Former NOP Site

Trust Level	Group Characteristics	Opportunities for Change
High	Believes the Corps and trusts it is meeting its obligations and ensuring that environmental problems are addressed. Trust is based on past positive interactions with the Corps and its contractors and on a general belief that the government is trying to do the right thing.	<i>No special efforts required.</i> Communication needs are apparently being met and little improvement is needed or expected.
Low	Smallest group. This group is made up of people who, for one reason or another, do not trust the Corps.	<i>No special efforts required.</i> Efforts to increase trust may be largely unsuccessful. Continue to maintain open lines of communication and provide information as requested.
Unsure	Largest group. Members are unsure about the Corps. They have legitimate concerns (e.g., property values, health effects, or water supply) but lack the information to decide. Some have attended one or two meetings, but do not have the time to be involved on a regular basis or are put off by the level of intensity at the RAB meetings.	<i>Focus additional communication efforts on this group.</i> They want information specific to their needs, but don't know what they want or how to ask for it. Without appropriate information, they are swayed by the vocal minority. This group needs more contact with and information from the Corps to feel comfortable (see Section 5.4).

5.3.3 Reevaluate the Viability of the RAB

The Corps' current relationship with some or all of the community RAB representatives is so contentious that it is having a negative effect on the two main communication goals at the site: meeting the community's needs for interaction and communication and increasing trust. Therefore, a reevaluation of the viability of the RAB by the Corps is included as a third communication goal at the site.

Animosities between the government and citizens' groups associated with environmental sites are common. Tensions seem to increase when site activities occur over a long period of time and when concerns include health effects or property values. Both of these conditions exist at this site. Over time, people who are less invested in the site tend to drop out of the process because of other demands on their time. Those who remain often feel very passionately about the site, much more so than the average citizen. This level of interest, coupled with a sense of frustration that the site work is progressing too slowly, can ignite conflict and distrust. Unfortunately, as can be seen at this site, the conflicts often become self-perpetuating on all sides.

A positive working relationship between all members of a RAB can result in great benefits for a site. Optimally, RABs serve to bring together people who reflect the diverse interests in the community, enabling early and continued flow of information between the affected community, site decision makers, and oversight agencies. RABs can also be useful reviewers of various outreach materials. The RAB guidance issued jointly by DOD and the EPA states that RABs are intended "to ensure that all stakeholders have a voice and can actively participate in a timely and thorough manner in the review of restoration documents. RAB community members will provide advice as individuals to the

decision-makers on restoration issues. It is a forum to be used for the expression and careful consideration of diverse points of view."

Unfortunately, the RAB at the site no longer functions as described above. Feedback from the community, several RAB members, and the former site project managers describe RAB meetings that have become increasingly contentious and unworkable. Corps personnel said they were increasingly being treated not as a partner in the RAB but as a target of personal attacks. This perception was supported by feedback from interviews with community members. The majority of community members who had an opinion about the RAB meetings overwhelmingly indicated that a lack of structure caused the meetings to be unproductive. These community members felt it was the Corps' responsibility to take control of the meetings, although the Corps is only one of several RAB members. The Corps attempted to establish guidelines for meeting format (e.g., agendas, time limits, a facilitator, etc.), but was told by the community RAB representatives that it had no legal authority to set these guidelines.

The Corps last held a RAB meeting in October 2007. Several unofficial meetings were held in 2008 without Corps participation. On February 10, 2009, the new site project manager sent a letter to the RAB community co-chair stating that the Corps would like to restart the RAB meetings using a format similar to that found at school board or other meetings. The letter suggested a meeting date in February or March (see Appendix C). The February 14, 2008 response indicated that the RAB believed that the Corps did not have the legal standing to set the meeting format and that rules of order had already been established for the RAB meetings in 2008. The community co-chair said the RAB would meet with the Corps only after the Corps agreed to abide by the RAB's meeting format. On April 20, 2009, the Corps' District Commander sent a letter to the RAB co-chair and the other community RAB members informing them that the Corps and the RAB had reached an impasse in resolving their respective differences and that the Corps had determined that it was in the best interest of all parties to continue suspension of the RAB meetings until the issues were resolved.

Many interviewees believed strongly that RAB meetings (in concept) are a good venue for presenting and discussing some of the more complicated site issues. However, the majority believe the current format is neither workable nor productive. It is likely to be difficult or impossible for the problems between the Corps and the community RAB representatives to be resolved without professional assistance. Suggestions for resolving the issues related to the RAB are presented in Section 5.4.9.

5.4 Steps for Attaining Goals

CDM believes that a variety of general steps for improving communication related to the site are available. Many of these steps are currently being taken to one degree or another, but could benefit from some additional improvements. These steps are summarized in Table 5-2 and discussed below. For each step, details are provided for improvements that can be made within the framework of the Corps' existing outreach program. Many improvements are very simple and require little extra time or effort, just small changes in behavior or thinking. Others require more effort, but can have a

Table 5-2. Communication Improvements to Provide Information Needed and Build Trust

Step	Status	Suggested Improvement	Cost	Priority
Understand the audience (Section 5.4.1)	Corps has a PIP. Audience definition is done informally.	<ul style="list-style-type: none"> ▪ Update PIP as needed to measure progress and make changes (informal). ▪ Continue to define audience, its information needs, and its limitations. 	<ul style="list-style-type: none"> ▪ Low ▪ Low 	<ul style="list-style-type: none"> ▪ High ▪ High
Understand issues and answers in advance (Section 5.4.2)	Corps has not formally prepared any messages. Corps prepares for meetings by thinking of Q&As, but no role-playing.	<ul style="list-style-type: none"> ▪ Develop messages that address FAQs and known concerns so positive work is not overshadowed. ▪ Continue to prepare for meetings. Try to role play. ▪ Educate all team members for a consistent message. 	<ul style="list-style-type: none"> ▪ Low ▪ Med ▪ Low 	<ul style="list-style-type: none"> ▪ High ▪ Med ▪ High
Involve the team in communication (Section 5.4.3)	Corps contractors are building a good relationship with residents, but they could do more with little extra effort. Project team needs formal guidance on communicating effectively and on expectations.	<ul style="list-style-type: none"> ▪ Continue using contractors for face-to-face contact in the field. ▪ Give team information kit (handouts, maps, newsletters, business card, etc.). ▪ Ensure team gets messages and knows what questions to answer or refer. ▪ Give team feedback on what property owners think of them (very positive). ▪ Encourage contractors to provide suggestions on how the Corps can improve. 	<ul style="list-style-type: none"> ▪ Low ▪ Low ▪ Low ▪ Low ▪ Low 	<ul style="list-style-type: none"> ▪ High ▪ High ▪ High ▪ High ▪ High
Ask and answer questions (Section 5.4.4)	When asked, the Corps does a good job of answering questions. Corps does not actively solicit questions.	<ul style="list-style-type: none"> ▪ Encourage samplers to query residents ▪ Use a question tracking system to ensure questions that needed additional follow-up are answered. 	<ul style="list-style-type: none"> ▪ Low ▪ Low 	<ul style="list-style-type: none"> ▪ High ▪ High
Continue having public meetings (Section 5.4.5)	Corps currently has public availability meetings that are attended by a small group.	<ul style="list-style-type: none"> ▪ Continue to have regularly scheduled meetings. ▪ Continue to use a combined open house/traditional format, but reorder ▪ Query people who come to tables about their concerns or issues and record on flip chart. ▪ Advertise in the newsletter, local newspaper, and/or postcards 	<ul style="list-style-type: none"> ▪ Low ▪ Low ▪ Low ▪ Med 	<ul style="list-style-type: none"> ▪ High ▪ High ▪ High ▪ High
Improve existing outreach materials (Section 5.4.6)	Corps' newsletters are well-received. Maps are difficult to read. Repository has short hours.	<ul style="list-style-type: none"> ▪ Continue to limit newsletters to brief updates. Avoid using technical jargon. ▪ Use e-mail <i>and</i> regular mail to distribute newsletters. ▪ Upgrade the Corps' maps to make them easier to read and more useful. ▪ Add another Information Repository that stays open longer than the library. 	<ul style="list-style-type: none"> ▪ Low ▪ Low ▪ Med ▪ Med 	<ul style="list-style-type: none"> ▪ High ▪ High ▪ High ▪ Med
Reach out to new groups (Section 5.4.7)	Corps has recently tried a presentation to a local group with success.	<ul style="list-style-type: none"> ▪ Develop relationships with local schools or youth groups. ▪ Use Corps personnel to staff a booth at a local event (e.g., a fair). ▪ Make a presentation to a local club or service organization. 	<ul style="list-style-type: none"> ▪ Med ▪ Med ▪ Low 	<ul style="list-style-type: none"> ▪ Med ▪ Med ▪ Med
Develop additional outreach tools (Section 5.4.8)	Corps relies primarily on newsletters, sample results letters, and meetings.	<ul style="list-style-type: none"> ▪ Develop handouts to explain issues of concern. ▪ Add "Ask Kristine" box to newsletter ▪ Run a series of Q&A advertisements. ▪ Make folders for residents to store information. ▪ Send postcards for updates and meeting notification. ▪ Leave door tags at homes that have been sampled. ▪ Write a column for the local newspaper. ▪ Distribute informational magnets or bookmarks. 	<ul style="list-style-type: none"> ▪ Med ▪ Low ▪ Med ▪ Low ▪ Low ▪ Low ▪ Med ▪ Med 	<ul style="list-style-type: none"> ▪ High ▪ High ▪ High ▪ Med ▪ Med ▪ Med ▪ Low ▪ Low
Resolve issues related to the RAB (Section 5.4.9)	Corps has suspended RAB meetings indefinitely.	<ul style="list-style-type: none"> ▪ Continue to provide information when asked. ▪ Consider using a focus group or professional mediator to improve the relationship between Corps and other RAB members 	<ul style="list-style-type: none"> ▪ Low ▪ Med 	<ul style="list-style-type: none"> ▪ High ▪ Med

significant payoff (e.g., development of new outreach tools). Finally, some improvements (e.g., reaching out to new groups) are extras that could build valuable relationships, but require more of a commitment. All of the steps have been ranked on the basis of ease of implementation and priority.

The nine steps are:

1. Understand the audience
2. Understand issues and answers in advance
3. Involve the team in communication
4. Ask and answer questions
5. Continue having public meetings
6. Improve existing outreach materials
7. Reach out to new groups
8. Develop additional outreach tools
9. Resolve the issues related to the RAB

5.4.1 Understand the Audience

The first step in ensuring that the information needs of the audience are being met is to understand the concerns, needs, and limitations of the various audiences. For example, information *needs* are usually different for older people (whose property is their greatest asset) than for parents of young children. Both groups will want to know where the contaminant plume is in relation to their property and if their water is safe to drink. However, older people may be more concerned about property values, while the younger group is concerned about potential health impacts to children. The older group may be more concerned about short-term impacts versus long-term trends. The older group may also prefer having written materials and face-to-face conversations with people who come to their homes to sample. The younger group may prefer receiving information by e-mail and having a Web site to check. The younger group may also be more likely to participate in meetings, despite having more time constraints.

Although the Corps tries to make information accessible, it is difficult for people who already understand the site to put themselves in the shoes of those who do not. The best way for the Corps to measure the success of how well they are communicating with their audience is to ask the audience. This approach includes being as direct as asking *"Did that answer your question?"* or *"Are there other questions you have or areas where you'd like more information?"* It also includes less direct methods of determining whether information has been received as intended, such as asking the audience questions that they would know the answers for if they understood the information, such as *"Can you tell me where the plume is in relation to your house?"* If they do not know, they can be given the information they need. More importantly, the feedback will be useful in determining how well the message is being communicated and if the handouts or maps need to be modified.

Table 5-3. Example of How to Develop Audience Characteristics to Improve Communication*

Opinion of Corps by Group	Characteristics	Communication Preference	Concerns	Communication Limitations
Majority of local property owners (also see Other actively involved stakeholders)				
<ul style="list-style-type: none"> ▪ Many trust the Corps is doing a good job. ▪ Some are unsure of how they feel (especially if they have not dealt with the Corps personally). ▪ Most believe the Corps will tell them if there is a problem. 	<ul style="list-style-type: none"> ▪ Most are long-time residents with an agricultural background. ▪ They are often middle-aged or older, or they may be young people who have moved onto the family property. ▪ Many have a good relationship with the Corps via well sampling. 	<ul style="list-style-type: none"> ▪ Face-to-face contact ▪ Meetings (or discussions with those who have attended) ▪ Tours ▪ Letters, newsletters, and news stories ▪ Most do not use e-mail ▪ They value what their neighbor has to say 	<ul style="list-style-type: none"> ▪ Groundwater availability ▪ Groundwater contamination ▪ Creek contamination ▪ Property values ▪ Health issues (especially younger residents) <p><i>They live near the site, so they think about it daily and have a medium to high level of concern.</i></p>	<ul style="list-style-type: none"> ▪ They may have hearing and mobility limitations. ▪ They have limited interest in details unrelated to their property. ▪ They may not read all the materials sent, but like maps or photos that tie into their property.
Residents of nearby communities				
<ul style="list-style-type: none"> ▪ Many are unsure of how they feel about the Corps. 	<ul style="list-style-type: none"> ▪ Many have an agricultural connection (parent or childhood on farm). ▪ Some worked in the area previously. ▪ They are often younger than local property owners. 	<ul style="list-style-type: none"> ▪ E-mail ▪ Meetings ▪ Newspaper stories and newsletters 	<ul style="list-style-type: none"> ▪ Property values ▪ Health issues ▪ Water quality issues related to M.U.D. wells <p><i>They are somewhat removed from site, so medium to low level of concern.</i></p>	<ul style="list-style-type: none"> ▪ It's harder for them to get to meetings or see news stories as they do not live in the area.
Stakeholders with job duties that involve the site				
<ul style="list-style-type: none"> ▪ They seem to have a good working relationship with the Corps. 	<ul style="list-style-type: none"> ▪ Agency or other representatives who participate in or oversee site activities ▪ Members of the press 	<ul style="list-style-type: none"> ▪ Written materials ▪ E-mail updates ▪ Meetings ▪ Tours 	<ul style="list-style-type: none"> ▪ Corps' compliance ▪ Impacts of site on their group/agency <p><i>They are generally well-informed with a low to medium level of concern.</i></p>	<ul style="list-style-type: none"> ▪ They may have many other duties and little time, but they want to be kept informed.
Other actively involved stakeholders				
<ul style="list-style-type: none"> ▪ Generally very distrustful of Corps ▪ Many feel the Corps has not communicated openly with them. 	<ul style="list-style-type: none"> ▪ Several local property owners ▪ People from other communities, including a lawyer hired by several RAB members 	<ul style="list-style-type: none"> ▪ RAB meetings ▪ Site documents (information repository) ▪ E-mail ▪ Conversations with locals ▪ Letters, newsletters, and news stories 	<ul style="list-style-type: none"> ▪ Groundwater availability ▪ Groundwater contamination ▪ Creek contamination ▪ Property values ▪ Health issues <p><i>They feel strongly about the site and have a very high level of concern.</i></p>	<ul style="list-style-type: none"> ▪ An adversarial relationship with the Corps makes it difficult to communicate openly. ▪ They may have very strong opinions about the site.

*Gross generalizations based on interviews. Intended as a start for a more thorough characterization to be developed over time by the project team.

Although the interviews did not focus in detail on audience characteristics, several general groups of stakeholders could be identified at the site. The characteristics of those groups are provided in Table 5-3. These characteristics are gross generalizations based on more than 40 interviews conducted for the assessment. They are intended to get the Corps to think about the various types of audiences related to the site and should be updated as the project progresses.

The current Public Involvement Plan (PIP) for the site was updated in 2008. Care should be taken to treat the PIP as an evolving document that should be revisited on an informal basis as the project progresses. Updates should be made where necessary to reflect successes or roadblocks in communication. Updates do not have to be formal rewrites of the plan, but they should include evaluations of how well the outreach tools and ideas listed in the plan are working and if new tools need to be tried. These evaluations can be documented in memos to staff personnel that can also serve as documentation of success. The Corps should document and evaluate any of the outreach activities it implements. As time progresses, the Corps should ask internally *“What was tried? How was the effort received? How much effort did it take? Should it be continued?”*

5.4.2 Understand Issues and Answers in Advance

Being prepared to provide adequate information and to answer questions is important to building trust and obtaining acceptance from the public. This ongoing process entails identifying potential issues of concern on a regular basis and determining how those issues will be addressed. The purpose is not to present a public relations campaign, but to give serious thought to issues that are potentially important to the community and to develop a unified response. Providing contradictory answers to a question undermines credibility, an issue raised in the interviews.

One of the most important venues to prepare for is a formal meeting. Because the Corps is often in the position of being the entity that answers site questions, preparation is critically important. The interview responses pointed out that some community members perceive that the Corps is withholding information or does not know what it is doing. In large part, these types of perceptions can be overcome by proper meeting preparation.

The Corps reports that it currently prepares a list of probable questions and answers before public meetings to ensure that staff members are on the same page regarding the answer. This practice should be continued and the Corps should consider having actual role playing to allow people to practice giving an answer, not just letting them talk about it. The purpose of this exercise is to ensure that answers given to the public will be clear, concise, accurate, and “user friendly.” After the meetings, the Corps should also evaluate how well the preparation worked to ensure there are not issues of interest to the community that are being overlooked. Also, the project team should understand that they should not allow themselves to be put in the position of answering a question if they are unsure of the answer. Although some vocal members of the audience may suggest that the Corps is hiding something by not providing an immediate answer to a question, there is nothing wrong with requesting time to get back to the questioner with

a detailed answer. This is especially true at sites where there is a significant amount of analytical data or history to consider in the answer.

At many CERCLA sites, the EPA often has a list of prepared messages (potential questions and answers) for key team members to understand. Having an agreed upon list of messages is very useful in communicating with the public, both verbally and in writing. Although the level of specificity will vary with the audience, the basic messages should not differ substantially from one group to the next. A list of suggested initial messages for use at the site is provided in Table 5-4.

Although the installation of the M.U.D. wells was beyond the control of the Corps personnel associated with the site, almost everyone who was interviewed is concerned with the M.U.D. well field. A perception exists that the Corps could have prevented the well field from being installed or that the Corps does not care about or understand the potential effects of the well field on the contaminant plume. These issues need to be addressed by the Corps in a format that is easy to understand. Although the Corps may feel that this has been explained adequately in the past, feedback from the community indicates that the message has not been received. The negative perception of “The Corps allowed the M.U.D. wells to be installed and doesn’t care what happens to the plume” needs to be turned around to reflect the reality that the Corps’ main responsibility at the site is to ensure that the contaminant plume is contained and that the Corps takes that responsibility very seriously. Beyond that, the Corps has no control over the use of water outside the site. This theme will have to be repeated over and over in a very simple message. A specific handout addressing the main issues around the M.U.D. wells could be a very useful tool.

5.4.3 Involve the Team in Communication

Project team members are the “face” of the project in the community. Residents at the site report that their interactions with Corps contractors have been very positive, particularly where well sampling is concerned. The Corps should continue to take advantage of these positive interactions. Project team members should understand their specific roles and responsibilities when communicating with the public. These roles and responsibilities are unique to each site and are determined by the leaders of the project team. For instance, *“Who is the designated point of communication for questions from the community, what is the policy for dealing with questions from the press, what types of feedback do management expect to get from the field team, and what are the main messages at the site?”* For some team members, outreach responsibilities are limited to listening respectfully and referring questions to a designated individual. Other team members have a higher profile. At a minimum, everyone should know to whom they should refer questioners for answers, and they should have a basic understanding of the site (again, prepared messages are useful).

Table 5-4. Example Messages for Communicating at the Site

Message	Questions to be Addressed	Purpose
Examples of general messages for everyone		
The Corps is meeting its responsibilities.	<ul style="list-style-type: none"> ▪ What is the Corps mandated by the ROD to do at the site? ▪ Who can people contact for issues beyond the control of the Corps? 	Focuses people on issues that the Corps has the power to change. Otherwise, the assumption is that the Corps can address every problem (e.g., M.U.D. wells).
Environmental issues are well understood.	<ul style="list-style-type: none"> ▪ What caused the plume and what are its characteristics? ▪ What is being done to remediate it? ▪ How does the scientific process work? 	Informs and focuses the audience.
The Corps is committed to communicating and values public input.	<ul style="list-style-type: none"> ▪ What is the Corps doing to ensure good communication (tools, actions, etc.)? ▪ What steps will be taken as a result of the situational assessment? ▪ Who is the point person for the Corps on communication? ▪ What steps is the Corps making to reengage the RAB? 	Shows that the Corps is doing its best to reach out, that it listens to public input, and that it has made numerous attempts to work with the RAB.
The Corps is committed to high-quality work.	<ul style="list-style-type: none"> ▪ What is done to ensure quality (5-year review, annual remedy performance report, biannual model updates)? ▪ What is done to ensure that lessons are learned from any missteps? ▪ What is done to ensure the plume extent and movement is well understood? ▪ What impact will M.U.D. wells have on plume movement? 	Shows that the Corps is competent and is on top of the issues at the site.
Human health and the environment are protected.	<ul style="list-style-type: none"> ▪ What are the primary contaminants, exposure pathways, health impacts, and significant concentrations? ▪ What would be done if significant concentrations were found? ▪ What is being done to ensure that drinking water is safe? 	Educates the public on potential concerns. Shows the community that the Corps will alert them to any health issues.
The Corps is responsive to stakeholders.	<ul style="list-style-type: none"> ▪ What is the Corps doing to provide information requested on a timely basis? ▪ What types of information are provided and when? ▪ How are questions tracked to ensure follow-up? 	Shows that the Corps is not hiding information and is providing what is asked to the best of its ability, even if it takes longer than expected.
Examples of messages specific to a limited audience or a single event		
The Corps cares about specific environmental concerns.	<ul style="list-style-type: none"> ▪ What is the Corps doing to address issues at Johnson Creek, or issues on specific properties (e.g., fish kills in ponds, safety of eating animals, etc.)? 	Answers concerns of specific property owners and builds trust.
Residents are informed about all aspects of sampling events.	<ul style="list-style-type: none"> ▪ When will the next sampling event occur at a particular property? ▪ When are analytical results provided to homeowners? ▪ What do the sample results mean? 	Builds goodwill with specific property owners.
Site meetings are for everyone.	<ul style="list-style-type: none"> ▪ When and where will the next meetings be held? ▪ What's the agenda? ▪ Are there any special issues? 	Raises awareness and helps ensure a good turnout for events.

Field team members have a great opportunity to interact with people in an informal setting. They should be able to explain basic facts about the site to property owners, such as where the plume is in relation to the property or what various sample results mean. Field team members can also confirm that the property owner's current mailing address and phone number are up to date and ask if the resident has been receiving the fact sheet, if they have a e-mail address, and if they have any questions or suggestions. Field team members serve as a useful barometer to measure the feelings in the community toward the project. By paying attention and reporting back, they can help track the success of specific outreach activities (e.g., a public meeting or a fact sheet). Field team members can also help identify potential issues or address rumors before they gain traction.

It is important for project team members to maintain their awareness of the fact that the residents live on or near the site and are directly affected by decisions made by the Corps. Residents are concerned for their health, their families' health, their ability to make a living, and the value of what is likely to be their biggest asset – their property. These concerns can result in a heightened level of anxiety that can erupt at seemingly unpredictable times. The Corps has tried to remain sensitive to the concerns of the community, and this practice should be continued. The majority of the community that agreed to be interviewed views the Corps in a positive light. Their concerns are generally related to anxiety and frustration about how the site affects them. Much of this anxiety (but not all) can be relieved by providing specific information about their individual situations.

5.4.4 Ask and Answer Questions

The Corps needs to continue its commitment to providing answers in a timely fashion. The Corps must be clear about how long it will take to provide the answer. When people are waiting for an answer, they assume the worst. If it will take longer than anticipated to get an answer, the Corps should get back to the questioner to let them know that they have not been forgotten. This courtesy is a simple gesture that can buy a lot of goodwill.

The Corps is a highly structured organization. This can sometimes create delays that the general public does not understand. There are many layers of people involved in approvals and reviews. The project would benefit from having a protocol in place for recording and tracking questions asked and answered. This can be as simple as a spreadsheet that identifies the questioner, question, date asked, date answered, answer provided, and resolution. Someone needs to be accountable if there are delays. Just knowing the status of a question asked can be extremely useful.

In addition to *answering* questions asked, the Corps and its contractors should make a point of *asking* people if they have questions. This outreach can be done during sampling events, at meetings, and in all interactions with the public. People often have questions but are afraid to ask (either because of embarrassment or because they don't want to be a nuisance). As a result, they often assume the worst. They then communicate those fears to their neighbors who have their own fears, and as a result, the distrust of the Corps builds. It is much better to proactively ask questions and to address them, where

needed, with the appropriate information. During the course of these interviews, people often commented that they appreciated that the Corps was taking an interest in what the community thought. Asking questions is an excellent way to find out what types of information the community wants and how they would like to receive it.

5.4.5 Continue Having Public Meetings

Many people interviewed said they like to attend meetings, both open-house meetings and more traditional meetings where presentations are given and questions are answered. People who preferred the traditional meetings said that it was useful to have other people ask the questions so they could just listen. Although the RAB meetings are indefinitely suspended at present, the Corps should continue to have public meetings. The meetings should be at least semiannual and quarterly meetings are preferred. One of the topics the Corps should consider covering at an upcoming meeting is the outcome of the situational assessment and the changes that will be made as a result. The results could be presented at a table with a poster and handouts.

The open-house meetings are good for many people. However, because many other people prefer to have a presentation, the Corps should consider combining the two meeting formats. Having a presentation at the start of the meeting followed by time to circulate among the various tables can give people something to talk about when they visit the tables. Asking people who visit each table what their concerns are and writing them on a flip chart is a good way to stimulate conversation and to capture concerns, and it is also free.

The Corps should advertise the meetings beyond including a note in the newsletters. To increase attendance (at a relatively low cost), the Corps could place a meeting ad, send out a reminder post card to the mailing list, and/or send out an e-mail reminder. If the meetings are held on a regular basis (e.g., quarterly) such reminders might make it easier for people to plan to attend. Any postcards or ads should announce the topic of the meeting, which might attract community members to a meeting they might otherwise not attend. Because a press release is an excellent way to get widespread coverage, the Corps should continue to issue those releases in advance of meetings. The Corps should also consider a brief interview with the local newspaper on a particular topic. The meeting announcement could be distributed in the form of a special newsletter that highlights *"Here's what we heard you saying and here's what we did to address it."* This will let people know that their input was valued and acted upon. Additionally, by issuing press releases, the Corps may see an increase in the number of positive stories about the site.

5.4.6 Improve Existing Outreach Materials

Most people said they approved of the information the Corps was sending out. Suggestions for improving existing materials focused on simple changes. Interviewees stressed the Corps should avoid using "technical talk and lingo." To a large extent, the Corps does a good job at keeping its newsletters simple. However, the word "aquifer" may be too technical for some groups without explanation. To be effective, the Corps

should be able to tailor its findings for different audiences. Findings should be presented in an extremely simply manner (with figures and drawings) for people who have little experience with environmental work and a fairly low need or interest level. A more robust presentation should be available for people who want and need more detail. The Corps should make the information more accessible and should let more people know about the site tours (which were highly rated by the interviewees).

5.4.6.1 Newsletters

Most people interviewed said they were pleased with the newsletters and other specific letters provided by the Corps. Care should be taken to continue to keep technical language to a minimum in these documents. Because fact sheets are limited in length, information has to be fairly general. Thus, the Corps should not consider fact sheets to be a main source of detailed information, but more of an update on the project's status. To provide more depth, the Corps should consider developing a stock of informational handouts (see Section 5.4.8). The Corps should give people the option of receiving the newsletters by e-mail, as well as in hard copy.

5.4.6.2 Sample Results Letters

When sample results are delivered, the Corps needs to provide an easy to understand explanation of "hits." If someone's well tests positive for a specific chemical, a written explanation (in layman's terms) of what that means should be provided to the property owner. People will generally be most concerned about how the result will affect them and their family. They will also wonder if they should be worried, what the Corps will do to follow up, and when that might happen. The best way to provide this information might be to enclose a standard, one-page handout that specifically explains how to understand the information provided in the letter.

5.4.6.3 Site Maps

Feedback from the interviews indicates that many of the maps being used are not effective for the community. At a minimum, the average community member should be able to identify where their property is in relation to the contaminant plume. This means having clearly marked roads and landmarks on the maps and using accepted mapping protocols. For example, there should be legends on all maps and the Corps cartographers should adhere to standards for symbolization, such as those used by the United States Geological Survey (USGS). Several residents expressed an interest in seeing maps of the plume over time. Many residents indicated a desire to see maps and had obviously not seen such maps on the former NOP site Web site.

For example, there are currently three maps on the site Web site that need modification:

- **Site Map.** This map is very busy. Although the map may be useful for people who want or need a good deal of detail and have access to the raw data, it is too much for the average viewer. Consider creating separate maps: one showing TCE and RDX with the buffer zones, and another showing various types of wells. Even the different types of wells may be shown on different maps depending on the audience and the intention. Also, make sure to imbed the characters in the

legend in the PDF, so the symbols on the map match the symbols in the legend on every computer. (www.nwk.usace.army.mil/projects/mead/SiteTech/Mead-Project-Base-Map.pdf).

- **Site Location Map.** This map may be useful for some citizens, but is too general for residents. The map could be improved for residents by showing more known local features. (www.nwk.usace.army.mil/projects/mead/SiteTech/Mead-Project-Site-Location-Map.pdf)
- **Current Hydraulic Containment Map.** This map has no legend and the use of color is not intuitive. For example, the USGS standard color for showing township/range is red. The brighter colors on the map that draw in the viewer are not the areas of concern. If budget allows, consider sending plume maps to residents and/or having interactive maps on the Web site or on a CD. (www.nwk.usace.army.mil/projects/mead/SiteTech/Containment_Evaluation_Map.pdf)

5.4.6.4 Information Repository

Many people stated that the hours at the Mead Library are too short, making the documents stored there inaccessible. The Corps should consider adding another location that is more accessible. Also, the range of materials placed in the repository should be expanded to include materials (such as handouts) that are short, easy to read, and message-oriented.

5.4.6.5 Tours

Several people said they liked going on the site tour. The Corps currently holds site tours annually and advertises them in advance. The Corps should continue this practice, which provides an opportunity for the face-to-face contact that builds trust in the community. The primary improvement would be to make the tours more well-known. The tours could also be an opportunity to involve a local science teacher and some students.

5.4.7 Reach Out to New Groups

Although all of the residents have an interest in the site, many have too many other obligations to be able to attend all of the meetings or read all of the information they have received. Several people mentioned that they stay informed, sometimes exclusively, by talking with their friends and neighbors. Because of this, the Corps should consider making an effort to have a stronger presence in the community. People always feel more favorable about an institution when they have a chance to interact with specific individuals and see that they are rational, caring individuals. Significant benefits can be achieved by reaching out to groups of adults and youngsters who would not otherwise have participated in site events. Methods of reaching out to these people are described below. It is suggested that the Corps try at least one of these methods, if resources permit.

5.4.7.1 Have a Booth at an Annual Event

The Corps should consider having a presence (e.g., a booth with handouts) at local events, such as fairs or rodeos. Such events are a great place to hand out brochures, shake hands, and talk about the site with people who would not normally attend a public meeting. Attending these events presents an opportunity for the Corps to develop relationships and become a recognizable, friendly face to more people in the community, which makes it more likely that people will come to the Corps with questions or concerns in the future. Most of the materials that would be needed for this event would be those that have already been prepared for meetings or sampling visits. Because Corps personnel are not stationed in the community, attending these events might be difficult, however an annual appearance at one event is manageable.

5.4.7.2 Present a Talk at Local Clubs and Service Organizations

The Corps should consider giving presentations to community groups in the area (e.g., Rotary, Elks, garden clubs, or homeowner groups). These presentations are a good way of identifying middle-ground people who may not already be involved in the process. These folks can help explain the facts to their neighbors. The materials that would be needed for these events would be those that have already been prepared for meetings or other visits. In addition, speaking to a friendly group can be a welcome break for the project team. The Corps recently had such an experience with a local group and has seen the goodwill that was built from an hour-long talk. Setting a goal of doing one or two such talks a year is achievable.

5.4.7.3 Develop a Relationship with a School and/or Youth Group

Because this site will be active for a long time, the Corps should consider involving younger people in the process. By getting kids to be aware of the site, the Corps would be educating them and their families. Local citizens have a strong, generational connection to their property. Raising awareness in kids could help the Corps' image, improve communication, and be beneficial to the kids. The Corps should consider making an annual presentation at a school or group such as the FFA or 4-H. Team members could take a science class on a field trip to sample a tap (or sample one at the school). Kids could take turns wearing gloves and writing down the notes, and they could look at a printout of lab results. The Corps could have a contest to design an informational poster about the site. The Corps should use the site to ignite the kids' interest in science and government. Such an annual event could build goodwill and would also be an enjoyable experience for the project team.

5.4.8 Develop Additional Outreach Tools

The best communications results are achieved by using a variety of tools to provide the same message in several formats. This practice of overlapping greatly increases the odds that the message will be heard, understood, and retained. Considering how deluged the average person is with responsibilities and information, chances are great that a large percentage of the audience may be entirely unaware of the first or even second attempts at communication. This section provides a brief description (with pictures) of some of the additional tools the Corps could consider using at the site.

These outreach tools include:

- Informational handouts
- “Ask Kristine” box
- Q&A ads
- Information packets
- Postcards
- Door tags
- Columns
- Refrigerator magnets and bookmarks

None of these tools is particularly expensive, and most of the tools use information that has already been gathered for other purposes. If the Corps is interested, these tools can be implemented one at a time to see if there is a favorable response.

5.4.8.1 Informational Handouts

The Corps should consider having a series of targeted handouts to explain recurring issues that are too complicated to address in the newsletter. Handouts are great tools at meetings. In addition, the process of preparing handouts would help the Corps identify both the issues that are important to the community and what the Corps has done or is planning to do to address those issues. It is possible to create a series of handouts that will have a long shelf life and do much to improve relations in the community.

Titles of these handouts could include:

- The history of the former NOP.
- What is the Corps’ role at the site?
- Why and how does the Corps collect residential water samples?
- Understanding the plume
- Understanding site risk
- Recurring activities at the NOP site
- Frequently asked questions



Preparation of these handouts would require only a moderate investment of time and money. Most of the material that would be needed for the handouts probably already exists. That material would just have to be edited down to fit the message and the audience. Copies should be made on an as-needed basis (to prevent a back-log of materials that might become dated) and should be very inexpensive. Obviously, with a moderate increase in the budget, it would be possible to have a series of very engaging and informative pieces.

As part of the situational assessment, CDM reviewed several of the Corps’ current outreach fact sheets and newsletters (available on the Web site). For the most part, these materials are attractive, easy to read, and contain useful information about the site. For example, the October 2008 fact sheet containing various facts about the site is a nice,

user-friendly document. It has a good use of pictures, the text is conversational, and it is broken up into manageable sections. This fact sheet could easily be made into several one-page handouts that could have an extended shelf life in an information package. The more recent newsletters are also attractive and easy to follow and would be good sources of information for handouts.

However, the October 2008 fact sheet “Summary of the 2007 Containment Evaluation” is an example of a handout that may be too technical and contain too much information for the public to digest in one sitting. This information could be split into at least two similarly sized handouts. One handout could cover the annual assessment (*What is it? Why is it done? What has it caught in the past?*). Another could cover the bi-annual review of the model (*What is it? Why is it done? What has the most recent review showed us? What are we doing as a result of this review to ensure containment?*).

If the situation with the RAB improves, it is possible that RAB members would appreciate participating in this process and could provide useful feedback on the design and content of the handouts. The handouts could initially be mailed out with one of the newsletters. Additional copies could be made available at meetings or other events.

5.4.8.2 “Ask Kristine” Box

Another simple tool to consider is having an “Ask Kristine” box on the fact sheet that provides answers to questions that have been e-mailed or mailed to the site project manager during the previous few months. Besides the obvious benefit of answering questions that concern residents, it gives the project manager a face in the community and represents one small step in building community relationships. Adding the box would require no additional cost.

5.4.8.3 Q&A Ads

The Corps could consider running a regular series of Q&A display ads in the local newspaper. The ads could run every two weeks or monthly for a trial period. Each ad could present and answer a single question about the site. Having regular ads would help establish a regular presence in the community and would provide a way for the Corps to answer questions. An annual compilation of the Q&A ads could also be made into a useful handout.

The cost of creating the ad would be minimal and the cost of placing the ad would depend on which newspaper was used. Each ad should have a contact number on the bottom. At present, it is almost impossible for someone who does not have a Corps publication in their hands to know who to contact. There is no listing for the Corps in the local telephone book (which is the most commonly used resource for locals, especially senior citizens).

ASK EPA !!
Questions and Answers
about Asbestos and EPA's Investigation

Q: Why is EPA sampling residential properties? Is it too late to get my house sampled?

A: For the past several months, EPA has been collecting environmental samples as part of the our Contaminant Screening Study (CSS). *Our goal is to sample every residential and commercial property in Libby* to determine if Libby asbestos is present, typically as vermiculite in the soils or as insulation. To date, we have sampled over 2,100 properties.

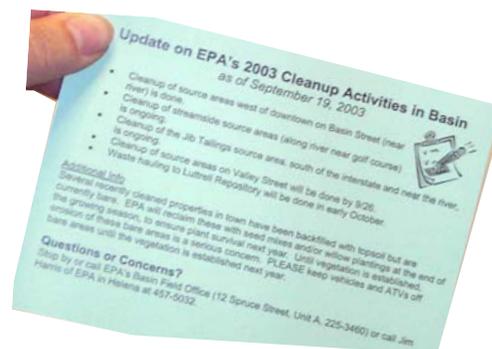
Participation in the CSS will provide you with information regarding the

5.4.8.4 Information Packets

The Corps may want to consider printing up several dozen information folders for distributing materials to residents during sampling and other events. CDM uses these information folders with great success at many sites. The folders have a blank exterior that can be customized on a laser printer. Each folder has an interior pocket that is used to hold various handouts, sample results, letters, maps, and other pieces of information about the site. Residents like the folders because they are an easy place to store the various pieces of paper they get about their property or the site.

5.4.8.5 Postcards

Postcards are great tools for getting a relatively simple message to a targeted audience. CDM uses postcards quite often to provide updates on construction activities in a particular town or neighborhood. Postcards are also useful for announcing upcoming meetings and providing a very brief description of the material to be covered.



The postcards are very inexpensive and can be printed on colored card stock using the in-house office printer. Postcards can generally be made up in less than a day, particularly at sites with a small mailing list.

5.4.8.6 Door Tags

Door tags are a special touch that let the resident know what was done on their property if they were not there during sampling. Door tags can be printed on the office printer using colored card stock and are hung from the door knob with a rubber band. Door tags have blanks in appropriate places for the samplers to write in information.

At this site, the door tags could say something like:

“Sorry we missed you!
On _____ we collected _____
water samples from your _____
_____ as part of the
residential sampling program.
After the sample results for all
properties are reviewed, we will
be sending individual property
owners a letter that presents the
results (probably within 60
days). We appreciate your
cooperation. If you have any
questions, please call
_____.”



Door tags are an inexpensive way to provide thoughtful information to the resident, reinforcing what the Corps is doing, and identifying the primary contact for questions. A supply of door tags can be kept in field vehicles for use by the sampling team at a very low cost for very little extra effort.

5.4.8.7 Newspaper Columns

A series of newspaper columns can be an effective way to increase general knowledge of the site and to encourage community participation in the process. Many newspapers welcome a guest column, especially smaller, area-specific newspapers. Other newspapers often require that the guest columns be placed as an ad that looks like a newspaper column.

Columns typically cover a site topic that is timely and easy to explain in the given amount of space (usually about 300 to 500 words). One of the primary benefits to writing a column is that (as with newspaper ads) the audience is much broader than the site mailing list. Also, people tend to look for a regular column, especially if it is interesting. Although the material for the column is likely to come from materials that already exist, care must be taken to ensure that the end product is lively, interesting, and informative. The costs are moderate and mainly associated with the cost of placing the column as an ad, if that is required by the newspaper. Because a regularly-appearing column (e.g., monthly) is most effective, it requires a commitment of resources over an extended period. There is a possibility that running a column might not be allowed under Corps regulations. However, if it is allowed, a series of newspaper columns is an optional outreach item that could build goodwill and awareness in the community.

Superfund and You
Why Should You Read This Column?

The U.S. Environmental Protection Agency (EPA) began working on the Libby asbestos cleanup in 1999. We know from our interactions with local residents over the years that many of you are very interested in knowing what EPA is or will be doing in the future with regard to cleanup. We also know that many of you want a chance to provide input to the process, but are often unsure about the best ways to do this. Many people in Troy are just beginning to get involved.

Keeping the public up to date and engaged when the technical issues are so complex is challenging. EPA has written fact sheets, hosted public meetings, conferences and workshops, facilitated a Community Advisory Group, provided a Technical Assistance Grant, published regular Q&A ads, maintained an EPA Information Center, and more. As part of our commitment to community awareness and involvement, we will be adding this column. It will run in the *Montanian* and *Western News* on the last Wednesday of each month. We want it to become a resource – a place where interested citizens can look for information on current events and issues that can be influenced by their input.

EPA believes it is important for the community to be involved in the Superfund decision-making process throughout the life of the cleanup project. EPA's staff and its contractors are always open to public input on our decisions and actions. There are also formal public comment periods built into the process where community input can have an impact on cleanup decisions. In 2005, the Superfund process will reach a key decision-making stage – the release of EPA's proposed plan for long-term cleanup. The public comment period following release of the plan will be an opportunity for residents to review and critique the plan.

Please take a few moments to read this column each month. We will provide timely information and alert you to opportunities to become involved in the process. Upcoming issues tentatively scheduled to be discussed include: overview of the Superfund Process, discussion of what we mean when we say "long-term cleanup," project update, information on a technical workshop for residents, discussion of the Proposed Plan for cleanup in Libby and Troy, and effective ways that you can provide comment to EPA. We welcome suggestions for topics you think would clarify the Superfund process and the public's role in it.

As part of our community involvement process, EPA will be sending out a postcard survey this week. A follow-up survey will be sent out in spring 2006. We hope that the information we obtain from this survey will help us improve the way we provide information and communicate with Libby and Troy residents. The survey is short and should take only a few minutes to complete. We greatly appreciate your participation by returning the postage-paid card to us. If you don't get one and would like to participate, you may pick one up at the EPA Information Center.

We encourage you to call or visit the EPA Information Center at 501 Mineral Ave. with questions or to review information related to the Libby Asbestos Site. You can reach me, Wendy Thoni, EPA's Community Involvement Coordinator, by calling toll free 1-866-457-2690.

5.4.8.8 Refrigerator Magnets and Bookmarks

Message-specific refrigerator magnets or bookmarks can be an excellent way to communicate a simple message. Refrigerator magnets are handy for providing adults with contact information about the site. The magnet can stay on the refrigerator or filing cabinet for future reference.

Bookmarks are useful for getting a very simple message out to kids. Bookmarks need to be very bright and colorful. Both magnets and bookmarks can be handed out at local events.

At the site, the best use for a refrigerator magnet is probably to provide contact information for the local community. The magnet could have a very brief message (similar to the example shown) that lets people know who to

If you find vermiculite on your property, call the ERS for free help in understanding and handling the situation.

Libby Area Environmental Resource Specialist (ERS)
406-291-5335
During regular business hours or emergency

Stay Healthy!
Wash your hands before you eat!
Before you enter, wipe your feet!
Be Happy!
CDM

call if they have questions or concerns. These items are inexpensive, even though they cannot generally be made up in house. These products are interesting additions to an outreach program, but should be considered extras.

5.4.9 Resolve the Issues Related to the RAB

At environmental sites, the RAB is often a useful partner in the remediation of the site. However, the current relationship at this site between the Corps and the RAB is much too adversarial to function as envisioned. Because of the increasingly contentious nature of the RAB meetings, it has been hard for team members to remain open and positive about communications at the site. A small minority on the RAB has reportedly made personal accusations about project team members (e.g., reportedly calling them “liars” or “incompetent” at RAB meetings). This situation is bad for the team and for general communication with the community at large. To step out of the conflict and maintain sensitivity to the concerns of the majority at the site, the Corps decided to suspend RAB meetings until the situation shows the possibility of improvement. In the meantime, several community RAB representatives have continued to hold meetings. However, those meetings are not official RAB meetings. Therefore, the Corps has no role in the meetings and cannot provide financial support for them.

The Corps is currently undecided about the future of the RAB. Options include dissolving the RAB entirely or continuing the suspension of the RAB meetings until format changes acceptable to the Corps are made. CDM suggests that the decision be made by the Corps after consultation with other agency members on the RAB to gauge their interest and commitment to participation. The Corps should clearly explain to the community that dissolution or indefinite suspension of the RAB is the alternative to reaching agreement on the format of the RAB meetings.

If the community RAB representatives and the Corps cannot resolve the meeting format issues and the Corps chooses to dissolve the RAB, the Corps should continue to try and develop a working relationship with community and agency stakeholders at the site. If community members choose to hold independent meetings, the Corps should respond in a timely fashion to any requests for information that result from those meetings.

If the community RAB representatives indicate they are willing to address the Corps’ meeting format concerns, the Corps should consider approaching them with suggestions for repairing the relationship as a gesture of goodwill and cooperation. At this point, repairing the relationship is probably not something that can be done without the aid of a neutral, third-party facilitator. That individual should command a level of local respect and gravitas that will ensure he/she is trusted by both parties and that an atmosphere of trust and cooperation will be maintained. The third party could work with the Corps and the RAB in a focus group (or series of meetings) that would have the aim of putting animosity aside and developing a list of ideas for how the two groups can work together in the future for the benefit of the site. Improving this relationship may not be possible, but it is worth trying.

Based on the results of the interviews, it is clear that changes should be made to ensure that the meeting format is conducive to the mission of the RAB. Those changes could be agreed upon in advance by the focus group. Suggestions for productive changes (based on the results of the stakeholder interviews) are listed in Table 5-5.

Feedback from the interviews indicates that some of the community RAB members seem to be open to a focus group or the format outlined in Table 5-5. However, these members need to be assured that the community RAB members have an equal say in whatever meeting rules are set. For instance, RAB members are concerned that any facilitator chosen by the Corps will “side” with the Corps. Any facilitator chosen for the project should be selected as a group effort, based on his/her experience and ability to relate to all of the groups involved. Such details could be worked out in the focus group environment. Milestones for assessing and improving (where needed) the workability of the meeting format could also be built into the process.

Table 5-5. Suggestions for Improving the RAB Meeting Format

Suggested Improvement	Reason
Rules of order	<i>Needed to ensure participation by all parties.</i> Effective rules could be based on those used for other entities (e.g. school boards) or could be unique to the RAB. Options could include a panel format with representatives at a front table who ask questions after a presentation, followed by additional questions from the audience. Questions should have a time limit.
Advance agenda	<i>Needed to ensure parties with an interest in certain topics have an opportunity to attend.</i> Post the agenda on the Web site at least one week in advance and have a list of topics to be covered included in any advertisement. The agenda could be e-mailed to individuals who indicated a preference for that type of communication.
Facilitator	<i>Needed to ensure rules and agenda are followed.</i> Should be a neutral, third-party facilitator who is respected and has personal authority. This approach is opposed by some RAB members, but it was brought up frequently in the community interviews and should be investigated. It is very common for RAB groups to have facilitators. Costs for a facilitator are allowable RAB expenses.
Advertisement	<i>Needed to ensure meetings are well-attended and to raise overall awareness.</i> Meetings should be advertised at least one week in advance. This could include a display ad in the newspaper, an announcement on the local public access cable television station, and an announcement in the site newsletter and/or a post card.
2-hour meeting maximum	<i>Needed to ensure meetings are productive and well-attended.</i> Meetings should not run longer than two hours. Having an agenda, a facilitator, and rules of order will enable this time limit to be met.
Increased meeting frequency	<i>Needed to limit meeting length and provide more opportunities for people to attend.</i> Meetings should be held at least quarterly. If meetings are productive and cooperative, both sides should be amendable to this frequency. If special topics come up that need to be addressed, an additional meeting could be held to address that topic.

Section 6 References

DOD/EPA, 1994. "Restoration Advisory Board (RAB) Implementation Guidelines," September 27, 1994.

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Appendix A: Interview Handout for January
2009 Public Availability Meeting

We'd Like to Hear from You!

In February 2009, contractors for the *Conflict Resolution and Public Participation Center of Excellence* of the *Institute for Water Resources* will be interviewing residents in the area of the Nebraska Ordnance Plant Superfund Site to identify local issues and concerns regarding that site. This information will be used to help the U.S. Army Corps of Engineers to better understand the local community and to identify and address potential conflicts to the benefit of all parties.

To obtain the most comprehensive understanding of local concerns, we'd like to interview as many people as possible. In early February, we will be sending a letter to local residents explaining the process and asking for their participation. However, we don't want to miss anyone.

If you are interested in being interviewed (or know someone we should contact) please contact Karen Ekstrom of CDM* by phone (406-441-1407) or email (ekstromkl@cdm.com).

Thank you for your assistance!!!

About the interviews....

We understand the many demands for your time, and we have structured the interviews to be as convenient and efficient as possible:

- Most will be done over the telephone. *However, if you would prefer a face-to-face interview, please let us know, and we will do our best to accommodate you.*
- Interviews will be done at a pre-arranged time that works for *you*, and each interview should take no more than 30 minutes to complete.
- We will ask everyone a short list of prepared questions, and there will be free time to discuss any other subjects *you* may wish to bring up.

Interviews will also be *private*. A *summary* of the results of the interviews as a whole will be part of the public record. However, specific comments will NOT be linked to individuals and the names of individuals interviewed will NOT be made public.



This work is being conducted at the request of the Kansas City District Corps of Engineers by:

<p>U.S. Army Corps of Engineers</p>  <p>IWR INSTITUTE FOR WATER RESOURCES</p>	<p>Conflict Resolution & Public Participation Center of Expertise</p> <p>www.iwr.usace.army.mil/cpc</p>	 <p>Conflict Resolution & Public Participation USACE</p>	<p><i>Our mission is to help the Corps anticipate, prevent, and manage water conflicts, ensuring that the interests of the public are addressed in Corps decisions. We achieve this mission by developing and expanding the application of collaborative tools to improve water resources decision making.</i></p>
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*CDM (out of their Montana office) is IWR's independent engineering contractor for these activities.

Appendix B: Letter of Introduction



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

February 11, 2009

Environmental Programs Branch
Planning, Programs and Project Management Division

Dear Community Member,

I am writing to let you know that the U.S. Army Corps of Engineers (USACE) Kansas City District has contacted the Institute for Water Resources (IWR) Conflict Resolution and Public Participation Center for assistance with our groundwater cleanup efforts for the former Nebraska Ordnance Plant (NOP) Superfund site, near Mead, Nebraska. The IWR Center provides assistance to USACE field offices in areas of conflict resolution and public participation.

The IWR Center has invited an external contractor, CDM (a very experienced environmental consulting firm), to carry out a situational assessment of our community participation efforts. This assessment will make recommendations on how we can work and communicate more effectively with the impacted communities during our cleanup of the former NOP. The assessment will include interviews with individuals who have an interest and a stake in this effort. We believe you might be interested in sharing your interests and concerns regarding the environmental restoration process of the former NOP.

Karen Ekstrom of CDM and her assistant, Kris Larson, both have extensive experience in public outreach and environmental management. To conduct the assessment, they will be speaking with as many people as possible by telephone during the months of February and March. These conversations will be private and should take less than 15 minutes to complete. Every effort will be made to make them convenient for you. Topics to be discussed may include your familiarity with the site and general impressions of the work being done there, your level of concern and general or specific issues or concerns, your satisfaction with the amount of information provided to date and thoughts on the best way to get information to folks, and your thoughts on how communication could be improved.

In the next few weeks, Karen and Kris will begin calling people on our mailing list. As the new USACE Project Manager for the site, I certainly hope you will take this opportunity to speak with them. I have high hopes that these interviews will help us determine how we can improve communication between the Army and the community.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine M. Stein".

Kristine M. Stein
Mead Project Manager
Kansas City District Corps of Engineers

Appendix C: RAB Letters



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

April 16, 2009

Environmental Programs Branch
Planning, Programs and Project Management Division

Dear Community RAB Members:

We have received Ms. Konecky's February 14, 2009, letter on behalf of the former Nebraska Ordnance Plant Restoration Advisory Board (RAB) community members. The letter indicates that the community RAB members remain steadfast in their opinion concerning the use of a facilitator or the mutual adoption of RAB procedures with the Corps of Engineers (the Corps). Over the past year, the Corps has repeatedly indicated its belief that these elements are fundamental to the continuation of productive RAB meetings for the community. A review and decision has been made, based upon Ms. Konecky's latest letter, that we will not be able to resolve our respective differences in a timely manner. The Corps believes that it is in the best interest of all parties to continue the suspension of the RAB meetings until these issues are resolved. A letter to the Community will be sent to advise them of our decision.

Let me assure you that the Corps will continue to keep the community informed by hosting quarterly Open Houses, producing newsletters and fact sheets, maintaining the project's website, and conducting site tours. The next Open House is scheduled for Wednesday, April 22, 2009. It will be held at the VFW Hall in Ashland, Nebraska from 4:00 p.m. – 8:00 p.m. Additionally, I will remain available to respond to phone calls and e-mails from any concerned community member.

If you have any questions regarding this issue, please feel free to call me at 816-389-3172 or email me at Kristine.m.stein@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristine M. Stein".

Kristine M. Stein
Army RAB Co-Chair
Corps of Engineers



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

APR 20 2009

REPLY TO
ATTENTION OF:

Environmental Programs Branch
Planning, Programs and Project Management Division

Dear Community Members:

Please reference the two enclosed letters pertaining to the former Nebraska Ordnance Plant Project Restoration Advisory Board (RAB) and their meetings. The first letter, dated February 10, 2009, was sent by the Corps of Engineers (the Corps) Project Manager, Ms. Kristine Stein, that requested a meeting be held with all RAB members to work together toward the mutual goal of resuming regular RAB meetings. The letter contained specific meeting conditions that I personally endorsed as being necessary to ensure a productive meeting. The second letter, dated February 14, 2009, served as the Community RAB's response and was sent by the Community RAB Co-Chair, Ms. Melissa Konecky. This letter clearly states that the community is unwilling to attend any meeting with the Corps unless I relax the conditions previously stipulated.

Following a careful review of this matter, I have determined that the meeting conditions identified in the Corps' letter dated February 10, 2009, are essential to protect stakeholder's individual interests, and help the RAB to resolve its differences. Additionally, upon review of all previous correspondence sent between the Corps and the Community RAB, I believe that we have reached an impasse on resolving our respective differences. Therefore, I have determined that it is in the best interest of all parties to continue the suspension of the project's RAB meetings until these issues are resolved.

Let me assure you that the Corps will continue to keep the community informed by hosting quarterly Open Houses, producing newsletters and fact sheets, maintaining the project's website, and conducting site tours. The next Open House is scheduled for Wednesday, April 22, 2009. It will be held at the VFW Hall in Ashland, Nebraska from 4:00 p.m. – 8:00 p.m. My staff remains available to respond to phone calls and e-mails from any concerned community member.

If you have any questions regarding this issue, please feel free to call the Project Manager, Kristine Stein at 816-389-3172 or send email to Kristine.m.stein@usace.army.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Wilson, Jr.", written in a cursive style.

Roger A. Wilson, Jr.
Colonel, Corps of Engineers
District Commander

Enclosures



DEPARTMENT OF THE ARMY
KANSAS CITY DISTRICT, CORPS OF ENGINEERS
700 FEDERAL BUILDING
KANSAS CITY, MISSOURI 64106-2896

REPLY TO
ATTENTION OF:

February 10, 2009

Environmental Programs Branch
Planning, Programs and Project Management Division

Ms. Melissa Konecky
403 S. Elm
Mead, Nebraska 68041

Dear Ms. Konecky:

As the new project manager for the US Army Corps of Engineers, Kansas City District, I would like to take this opportunity to re-engage the Mead Community and make efforts to convene a Restoration Advisory Board (RAB) meeting for the Former Nebraska Ordnance Plant Site. While the Army and the Community have not convened a RAB meeting since October 2007, it is my hope that we can still resolve our differences which I believe can start with holding a RAB meeting in the near future.

Our interest is that we are able to have a non-confrontational and open exchange of information and concerns. Based on past meetings, we feel strongly that this can only be accomplished through use of a neutral third party facilitator. For this initial meeting, the Army will provide a professional facilitator. In the future, the Board may decide to work together to choose a different facilitator that is mutually acceptable to all Board members.

In addition, the Kansas City District also remains firm on the need to develop mutually acceptable RAB Operating Procedures. For our RAB meeting, I am requesting that the first agenda topic be the establishment of RAB operating procedures and rules. If time permits, we would like to discuss other project issues and updates of the on-going restoration activities per your suggestions. We believe that the establishment of meeting procedures will aid the RAB in all future meetings, as time management, issue resolution, and tracking of action items have been problematic in previous meetings.

The Army will plan to have a court reporter and videographer at this meeting. We are also planning to publicize the meeting on the web site and through notification to the news media, direct mail and email. The public is welcome to attend and listen during the conduct of RAB business, with a specified time at the end of the meeting for comment. Additionally, we would prefer to convene RAB meetings where all board members sit at the same table to facilitate discussions and function in similar manner to other boards such as a city council or school board.

We propose to schedule this meeting in the near future, and I would like your help at coordinating a date that is acceptable to the Community. The Army is available February 26, March 5, March 12 and March 19, 2009. We have checked the schedule at the Ashland VFW Hall, and unfortunately, it is already booked on these dates. As such, I would suggest we hold the meeting at the University of Nebraska – Lincoln's Agricultural Research and Development Center, or another suitable facility of your choosing. Once a date is chosen, I would be happy to work with you on the location and final agenda for the meeting.

Please direct your response to me as soon as possible so that we can continue to coordinate this important meeting. Please feel free to contact me at (816) 389-3172 or via e-mail at Kristine.M.Stein@usace.army.mil. I look forward to working with you and the other Community Members so that RAB Meetings can be a viable part of our public information efforts for the Former Nebraska Ordnance Plant Site.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kristine M. Stein', written over a horizontal line.

Kristine M. Stein
Army RAB Co-Chair
Corps of Engineers

CC: RAB Members

February 14, 2009

Kristine Stein
Kansas City District
U. S. Army Corps of Engineers
700 Federal Building
Kansas City, MO 64106-2896

Re: Your letter dated February 10, 2009 regarding the Restoration Advisory Board (RAB) for the former Nebraska Ordnance Plant Superfund site, Mead, Nebraska

Dear Ms. Stein:

This responds to your letter dated February 10, 2009. Welcome aboard as the new project manager for the Kansas City District related to the former Nebraska Ordnance Plant Superfund site.

The community RAB members are happy to meet with District personnel legally in a manner that complies fully with the federal RAB regulations, 32 CFR Part 202. However, the community RAB members are unable to convene a RAB meeting with you under conditions that violate the RAB Rule.

Your letter states that the Kansas City District "remains firm on the need to develop mutually acceptable RAB Operating Procedures". This statement raises two points that need clarification.

First, RAB operating procedures have already been officially adopted. At our special RAB meeting April 15, 2008, RAB operating procedures were legally adopted by the community RAB members. (A copy of the adopted RAB operating procedures was forwarded to your predecessor, Garth Anderson, on April 21, 2008. Please let me know if you would like to have another copy sent to you.) The District and all other agency RAB members were invited to attend the April 15 meeting and participate in their development. The District's unfortunate decision not to attend the meeting or provide written input as we requested prior to adoption can be rectified, however. In accord with § 16.1 of the RAB operating procedures, the procedures may be revised or amended at any legally convened RAB meeting by a majority vote of the community RAB members. This means that the District may present its ideas for amendment of the operating procedures at a future legally convened RAB meeting for consideration by the community RAB members.

Second, § 202.9(b) of the RAB regulations states, "[W]hen a RAB decides to vote or poll for consensus, only community members should participate." Thus, the RAB Rule gives the sole authority to the community RAB members for development and adoption of RAB operating procedures. While agency RAB members may participate fully in the discussions regarding development of the operating procedures, according to the regulations, only community RAB members are authorized to vote on adoption of the procedures. This means that your condition that operating procedures must be adopted that are "mutually acceptable" to all RAB members (both community RAB members and agency RAB members alike) would violate § 202.9(b) and cannot be agreed to. We recommend that you refer to the RAB Rule to familiarize yourself with its provisions.

It should be noted that, after studying the applicable legal authorities, including the federal RAB Rule, Senator Don Preister and his legal counsel concluded independently that the Corps' condition that "mutually acceptable" operating procedures must be developed would violate the RAB Rule. In a letter dated September 5, 2008 to Colonel Roger A. Wilson of the Kansas City District, Senator Preister explained, "[A]ccording to the explicit terms of the federal regulations, only community RAB members have a vote when adopting operating procedures or deciding other RAB-related matters. The agency RAB members may participate fully in discussion regarding matters that come before the RAB, but once discussion ends only community RAB members are authorized to vote." Senator Preister therefore concluded that because this condition would violate the federal RAB regulations, it is unacceptable. Thus, Senator Preister's assessment of this issue agrees with that of the community RAB members.

At a legally convened RAB meeting, the community RAB members are quite willing to consider any changes to the operating procedures that the Corps would like to propose. However, agency RAB members (like the Kansas City District of the Corps) are not legally authorized to vote on adoption of any changes. We encourage you to come to a meeting and explain your reasoning behind any requested changes or additions to the operating procedures. The community RAB members will be happy to consider them.

Your letter also states, "The public is welcome to attend and listen during the conduct of RAB business, with a specified time at the end of the meeting for comment." This statement also needs a clarifying response.

The RAB Operating Procedures provide, at § 8.3, "Questions and comments by the public are encouraged during each RAB meeting when the subject of interest is discussed on the agenda. Questions and comments by the public regarding non-agenda items are also encouraged and shall be permitted at a designated time during each meeting." Thus, questions and comments from the public are encouraged throughout RAB meetings; community stakeholders are not forced to wait until the end of the meeting to ask questions and make comments.

The rationale behind § 8.3 is, in essence, RAB meetings are primarily for members of the community, not primarily for the agency representatives who may attend. This basic tenet is codified in § 202.1(b) of the RAB Rule, which provides that the central purpose of the RAB is to provide a forum for information exchange among stakeholders, members of the community, tribes, regulatory agencies, and DoD installations. The RAB Rule explicitly states that stakeholders include anyone who may be affected by the environmental restoration activities at the site. Thus, prime reasons for a RAB to exist are for discussion and involvement by stakeholders, not just RAB members.

It is inconsistent with both the letter and the spirit of the RAB Rule to erect a bright-line distinction between RAB members and those who are not. Furthermore, the RAB community members regard the input and participation of **all** stakeholders as equally valuable and essential to the proper functioning of the RAB. Most members of the community attend RAB meetings because their lives and livelihoods are tied to the land water which the DoD has contaminated. We cannot agree to your desire to silence during any part of a RAB meeting any of these members of the community who are adversely affected and/or at risk because of the DoD's contamination.

We have found that it is very important to the community to have the opportunity to ask clarifying questions during presentations if information presented is unclear, incomplete, or confusing. Being able to ask the presenter to clarify as the information is being presented helps

enormously in understanding the often technical material being presented or the points being discussed. It is counterproductive and not conducive to open exchange of information to force members of the community to try to remember their question(s) all throughout the meeting then raise it/them at the end of the meeting where they must try to reconstruct the context(s) in which their question(s) originally arose. We trust you now understand why the community RAB members cannot agree to your proposal that members of the public be silenced until the end of the meeting.

Your letter also stated, "Our interest is that we are able to have a non-confrontational and open exchange of information and concerns. Based on past meetings, we feel strongly that this can only be accomplished through use of a neutral third party facilitator."

Use of a facilitator is inconsistent with § 12.6 of the RAB Operating Procedures. Section 12.6 provides, "A facilitator shall not be used to run RAB meetings or be used in any other capacity regarding RAB operations." The community RAB members might be willing to consider suspending § 12.6 for a RAB meeting provided that (1) the meeting is legally convened in all respects and fully compliant with the RAB Rule, and (2) Senator Preister is the facilitator.

Because the Kansas City District of the Corps chose not to attend the special RAB meeting on April 15, 2008 and the public information meetings we convened with Senator Preister on September 23, 2008 and December 16, 2008, Corps personnel do not have any firsthand information regarding how equitably these meetings have been handled. At each of these meetings, all those in attendance, including agency representatives, had ample opportunity to present information and make comments throughout the meetings.

EPA Region 7 Administrator John Askew commented during our September 23, 2008 public information meeting in Ashland that we community RAB members "are actually pretty good sports." In addition, he stated that one of our community RAB members, who has done a lot of research and analysis regarding the cleanup of the site and who regularly asks a lot of questions and makes comments at RAB meetings on behalf of the community, is "a good advocate" and is "a lot of fun to be around". We encourage you and other Kansas District personnel to set your fears aside.

We will be happy to coordinate with you regarding potential dates for a legally convened RAB meeting once you have responded affirmatively regarding the points set out above. Thank you for your cooperation in this matter.

Sincerely,

Melissa Konecky
RAB Community Co-Chair
P. O. Box 293
Mead, NE 68041
melissakonecky@yahoo.com

cc Roger A. Wilson, Jr., KC District, USACE
Gene Gunn, US EPA
Kenneth Rapplean, US EPA
Aradhna Srivastav, NDEQ
Ed Southwick, NDEQ

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Appendix B

List of Interested Parties

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1.0 ELECTED AND APPOINTED OFFICIALS

1.1 U.S. Senators

Senator Mike Johanns
<http://johanns.senate.gov>

Washington, DC Office
404 Russell Senate Office Bldg
Washington, DC 20510
Tel: 202-224-4224
Fax: 202-228-0436

Lincoln Office
294 Federal Building
100 Centennial Mall North
Lincoln, NE 68508
Tel: 402-476-1400
Fax: 402-476-0605

Omaha Office
9900 Nicholas Street
Suite 325
Omaha, NE 68114
Tel: 402-758-8981
Fax: 402-758-9165

Senator Ben Nelson
<http://bennelson.senate.gov>

Washington, DC Office
720 Hart Senate Office Bldg
Washington, DC 20510
Tel: 202-224-6551
Fax: 202-228-0012

Lincoln Office
440 North 8th Street
Suite 120
Lincoln, NE 68508
Tel: 402-441-4600
Fax: 402-476-8753

Omaha Office
7602 Pacific Street
Suite 205
Omaha, NE 68114
Tel: 402-391-3411
Fax: 402-391-4725

1.2 U.S. Representative

Congressman Jeff Fortenberry (District 1)
<http://fortenberry.house.gov/>

Washington DC Office
1535 Longworth HOB
Washington, DC 20515
Tel: 202-225-4806
Fax: 202-225-5686

Lincoln Office
301 South 13th Street, Ste 100
Lincoln, NE 68508
Tel: 402-438-1598
Fax: 402-438-1604

Norfolk Office
125 S. 4th Street, Suite 101
Norfolk, NE 68701
Tel: 402-379-2064
Fax: 402-379-2101

Fremont Office
P.O. Box 377
629 Broad Street
Fremont, NE 68026
Tel: 402-727-0888

1.3 Nebraska State Governor

Governor Dave Heineman
<http://www.governor.nebraska.gov/>

Lincoln Office /State Capitol
Office of the Governor
P.O. Box 94848
Lincoln, NE 68509-4848
Tel: 402-471-2244
Fax: 402-471-6031

1.4 Nebraska Lieutenant Governor

Lt. Governor Rick Sheehy
<http://www.ltgov.ne.gov/>

State Capitol, Room 2315
P.O. Box 94863
Lincoln, NE 68509
Tel: 402-471-2256
Fax: 402-471-6031

1.5 State Senators

Senator Ken Haar
District 21
<http://news.legislature.ne.gov/dist21>

Room 1017, State Capitol
PO Box 94604
Lincoln, NE 68509
Tel: 402-471-2673
khaar@leg.ne.gov

Senator Chris Langemeier
District 23
<http://news.legislature.ne.gov/dist23>

Room 1202, State Capitol
PO Box 94604
Lincoln, NE 68509
Tel: 402-471-2719
clangemeier@leg.ne.gov

1.6 State Fire Marshall

John Falgione
<http://www.sfm.ne.gov/>

246 South 14th Street
Lincoln, NE 68508-1804
Tel: 402-471-2027
Fax: 402-471-3118

2.0 FEDERAL OFFICIALS

2.1 CENWK Project Manager

Kristine Stein

U.S. Army Engineer District, Kansas City
601 East 12th Street
Kansas City, MO 64106-2896
Tel: 816-389-3172
Fax: 816-389-2023
kristine.m.stein@usace.army.mil

2.2 CENWK Public Affairs Officer

David S. Kolarik

Public Affairs Office
Room 736 Federal Building
601 E. 12th Street
Kansas City, MO 64106
David.S.Kolarik@us.army.mil
Tel: 816-389-3072

2.3 USEPA Region VII Project Manager

Ken Rapplean, Remedial Project Manager
U.S. Environmental Protection Agency, Region VII
Superfund Division, Missouri/Kansas Remedial Branch
901 N. 5th Street
Kansas City, Kansas 66101
Tel: 913-551-7769

2.4 USEPA Community Involvement Coordinator

Debbie Kring

U.S. Environmental Protection Agency, Region VII
901 N. 5th Street
Kansas City, KS 66101
Tel: 913-551-7725
Fax: 913-551-7066

3.0 STATE OFFICIALS

3.1 Nebraska Department of Environmental Quality Project Manager

Stacey Stricker

Nebraska Department of Environmental Quality
Suite 400
1200 "N" Street
Lincoln, NE 68509-8922
Tel: 402-471-2326
Fax: 402-471-2909

3.2 Lower Platte North NRD Personnel

Larry Angle

Lower Platte North Natural Resources District
P.O. Box 126
Wahoo, NE 68066-0126
Tel: 402-443-4675
Fax: 402-443-5339

4.0 COUNTY OFFICIALS

4.1 Saunders County Board of Supervisors

Craig Breunig
926 N. Linden
Wahoo, NE 68066
402-443-3435

James Fauver
657 N. Locust
Wahoo, NE 68066
402-443-4289

Leroy Hanson
1743 County Road B
Ceresco, NE 68017
402-665-6741

Doris Karloff
P.O. Box 153
Yutan, NE 68073
402-625-2327

Kenneth Kuncel
109 N. Railway
Prague, NE 68050
402-663-4346

Dave Lutton
101 Noble Drive
Ashland, KS 68003
402-944-3383

Scott Sukstorf
980 Co. Rd W, Lot S108
Fremont, NE 68066
402-727-5644

5.0 CITY AND VILLAGE OFFICIALS

5.1 Village of Mead Officials

Village of Mead

312 South Vine Street
Post Office Box 46
Mead, NE 68041-0046
Tel: 402-624-2495
Fax: 402-624-2024
www.meadnebraska.org

Village Board of Trustees:

Brad Howell, Chairman
Bobbie Feldhaus, Trustee
Jim Halbmaier, Trustee
Ailene Raver, Trustee
Dick Swanson, Trustee

5.2 City of Wahoo

City of Wahoo

605 North Broadway
Wahoo, Nebraska 68066-0154
Phone: 402.443.3222
Fax: 402.443.5483
www.wahoo.ne.us

Gerald D. Johnson, Mayor

Wahoo City Council:

Janet Jonas, Pres., Ward I
Merle Hennings, Ward I
Michael Lawver, Ward II
James Svoboda, Ward II
Gerry Tyler, Ward III
Stuart Krejci, Ward III

5.3 City of Ashland

Ashland City Hall

2304 Silver Street
Ashland, NE 68003
Tel: 402-944-3387
Fax: 402-944-3386
www.ashland-ne.com

Paul Lienke, Mayor

Council Members:

Sheila Bentzen, Ward 1
Karl Rosenbaum, Ward 1
Sue Brauckmuller, Pres., Ward 2
Wayne Williams, Ward 2

5.4 Village of Ithaca Village

Ithaca Village Office

530 Main Street
Ithaca, NE 68033
Tel: 402-623-4277

5.5 Village of Memphis

Memphis Town Hall

203 Natchez,
Memphis, NE 68042-5012
Tel: 402-944-2283

5.6 City of Yutan

Yutan City Offices
112 Vine Street
Yutan, NE 68073
(402) 625-2112
www.yutan.ne.gov

6.0 LOCAL AND REGIONAL MEDIA

6.1 Newspapers

Lincoln Journal Star

www.journalstar.com

Michael Nelson, Editor
Tel: 402-473-7334
mnelson@journalstar.com

Omaha World-Herald

www.omaha.com

Mike Reilly, Executive Editor
Tel: 402-444-1000
news@owh.com

Ashland Gazette

[www.omahnewsstand.com/
the_ashland_gazette/](http://www.omahnewsstand.com/the_ashland_gazette/)
Suzi Nelson, News Editor
Tel: 402-944-3397
news@ashland-gazette.com

Wahoo Newspaper

[www.omahnewsstand.com/
wahoo_newspaper/](http://www.omahnewsstand.com/wahoo_newspaper/)
Kris Byars, News Editor
Tel: 402-443-4162
news@wahoonespaper.com

6.2 Television

KETV ABC - Channel 7

2665 Douglas Street
Omaha, NE 68131
www.ketv.com
Tel: 402-978-8954
news@ketv.com

KMTV CBS - Channel 3

10714 Mockingbird Drive
Omaha, NE 68127
www.kmtv.com
Tel: 402-592-3333
news@action3news.com

WOWT NBC - Channel 6

3501 Farnam Street
Omaha, NE 68131
www.wowt.com
Tel: 402-346-6666
sixonline@wowt.com

KPTM FOX - Channel 42

4625 Farnam Street
Omaha, NE 68132
www.kptm.com
Tel: 402-558-4200
news42@kptm.com

KOLN CBS- Channel 10

840 North 40th
Lincoln, NE 68503
www.1011now.com
Tel: 402-467-4321
info@kolnkgin.com

6.3 Radio

KRNU

Lincoln, NE
Tel: 402-472-3054
krnu@unl.edu

KZUM

Lincoln, NE
Tel: 402-474-5086
programming@kzum.org

Appendix C

Location of the Information Repository

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INFORMATION REPOSITORY

Mead Public Library
316 South Vine Street
Mead, NE 68041
Tel: 402-624-6605
www.meadnebraska.org/library

Hours:

January through May and September through December

Monday – 2:00 to 7:00 pm

Thursday – 9:30 to 11:30 am and 2:00 to 7:00 pm

Saturday – 9:00 am to 12:00 noon

June, July, and August

Monday – 2:00 to 8:00 pm

Thursday – 9:30 to 11:30 am and 2:00 to 8:00 pm

Saturday – 9:00 am to 12:00 noon

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