

FACTSheet

Former Nebraska Ordnance Plant ■ Mead, Nebraska

Second Five-Year Review Operable Unit 2 (Groundwater)

What is a Five-Year Review?

The purpose of a five-year review is to determine if remedies at a site are/remain protective of human health and the environment. If any issues that affect protectiveness are found during the five-year review, recommendations for follow-up actions are made to address them. The review addresses three major questions:

- Is the remedy functioning as intended?
- Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?
- Has any other information surfaced that could affect the protectiveness of the remedy?

Site History

The former Nebraska Ordnance Plant Site is located one half mile south and east of Mead and 30 miles west of Omaha in Saunders County, Nebraska. The Site is approximately 17,250 acres in size and is bordered on the east by Johnson Creek and on the west by Silver Creek. Groundwater contamination at the Site is present as a result of Department of Defense activities that took place between the 1940s and 1960s.

The U.S. Army Corps of Engineers began investigating the Site in the 1980s. The Site was added to the National Priorities List in 1990. In 1997, the Record of Decision for Operable Unit 2 (Groundwater) was signed and listed seven contaminants in Site groundwater with migration to be controlled through containment.

Two primary chemicals that require cleanup in Site groundwater are RDX and trichloroethene (TCE). As part of the Site remedy, extraction wells and groundwater treatment plants were constructed to control the migration of the four contaminant plumes and provide containment to keep them from spreading.

Site Chronology

- 1988 – Initial Environmental Site Assessment Investigation
- 1990 – National Priorities List
- 1991 – Remedial Investigation
- 1992 – Interagency Agreement
- 1995 – Feasibility Study
- 1997 – Record of Decision
- 2002 – Extraction wells and Main groundwater treatment plant constructed
- 2006 – Load Line 1 groundwater treatment plant constructed
- 2008 – Advanced Oxidation Process groundwater treatment plant constructed
- 2009 – First Five-Year Review
- 2010 – Load Line 4 groundwater treatment plant constructed
- 2011 – Construction Complete established and revised status on the National Priorities List
- 2014 – Implementation of ultraviolet treatment systems and shutdown of Main groundwater treatment plant
- 2014 – Second Five-Year Review

November 2014

For more information or any questions concerning the former Nebraska Ordnance Plant project, please contact:

**U.S. Army Corps of Engineers,
Kansas City District**
601 East 12th Street
Kansas City, Missouri 64106
Phone: (816) 389-3172

or go to the project website at:

<http://www.nwk.usace.army.mil/Missions/Environmental/EnvironmentalProjects/NOP.aspx>

Information repository documents are available for review at:

Mead Public Library
316 South Vine Street
Mead, Nebraska 68041
Phone: (402) 624-6605

Hours

Tuesday: 10 a.m. - 1 p.m. and 2-6 p.m.
Wednesday: 4-8 p.m.
Thursday: 10-11 a.m., and 2-6 p.m.
Saturday: 10 a.m. - 2 p.m.



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Major Developments since Last Five-Year Review

- A vapor intrusion study determined that there is no unacceptable risk from vapor intrusion exposure for the buildings.
- An evaluation of potential risks to farm workers associated with inhalation of TCE released during field irrigation activities concluded that current practices do not pose unacceptable risk or hazard.
- An evaluation of the surface water exposure pathway determined that surface water did not pose an unacceptable risk or hazard and that no further action was necessary. Quarterly sampling of surface water was discontinued.
- Extraction well EW-11, which is located on the east side of the Load Line 1 plume, was converted to a focused extraction well, FEW-11. FEW-11 provides increased contaminant mass removal of both TCE and RDX.
- The Advanced Oxidation Process groundwater treatment plant was constructed in 2008 to treat TCE-contaminated groundwater from FEW-11.
- Focused extraction well FEW-14 was installed in the area of concern for the Load Line 3 plume and provides mass removal of RDX.
- Extraction wells EW-2, EW-5, and EW-10 were decommissioned because they no longer benefited hydraulic containment.
- The Load Line 4 groundwater treatment plant was constructed in 2010 to treat TCE-contaminated groundwater from focused extraction well FEW-15.
- In 2012, cleanup goals were achieved in the vicinity of extraction wells EW-3, EW-6, and EW-16. Therefore, these wells were decommissioned in 2013.
- Extraction well EW-17 was installed in 2013 on the south east side of the Load Line 1 plume for hydraulic containment.
- Optimization of the site-wide groundwater monitoring well network and sampling frequency was performed. Optimization activities resulted in the installation of new monitoring wells, abandonment of monitoring wells, and modification of sampling frequency.
- The 2012 and 2013 Containment Evaluation reports concluded that extraction well EW-1R provides hydraulic containment for the eastern side of the Load Line 4 plume.

Issues, Follow-up Actions, and Schedule Dates

No issues related to current Site operations, conditions, or activities that affect the current and/or future protectiveness of the remedy were identified during the second five-year review. Therefore, no follow-up actions are required.

Protectiveness Summary

The remedy at Operable Unit 2 is protective of human health and the environment.

Next Five-Year Review: 2019

Site Map

