

NEWS Letter

Former Nebraska Ordnance Plant ■ Mead, Nebraska

April 2009

For more information or any questions concerning the Mead project, please contact:

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Information repository documents are available for review at:

Mead Public Library
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Public Meeting

A Public Availability Session will be held April 22, 2009. Residents and members of the community are invited to come by and discuss their concerns with the Corps. The session will be at the VFW building at 102 South 24th Street, in Ashland, Nebraska between 4:00 p.m. and 8:00 p.m. Refreshments will be served. For further information regarding the meeting contact Joe Donovan at (816) 389-3587.

EPA News

The Environmental Protection Agency (EPA) is in the process of completing the residential water supply well sampling effort. Residential property owners were contacted, permission obtained, and their groundwater well sampled if they were in the pathway (downgradient) of the groundwater plumes and within one to two miles of those plumes. The analytical results will be sent to the owners of those properties that were sampled.

Another item to be noted is reorganization within the Superfund Division at EPA. Kenneth Rapplean is now serving as EPA's Remedial Project Manager for the site.

Improving Communications

Communication between the Corps and the community is an important

aspect to the overall project. The Mead project team has a long history of communicating with the local stakeholders through open houses, the Restoration Advisory Board (RAB) and site tours. To continue to foster good communications, Camp Dresser and McKee (CDM), a respected consulting firm has been brought on to conduct a "Situational Assessment" of communications at the site in order to identify what is working and what needs improvement and to help set a course for future communications. That initiative was announced at the January Public Availability Session.

To gather the necessary information, CDM planned to interview as many local residents and other interested parties as possible. In February, the Corps sent letters to the entire site mailing list (over 130 people) encouraging them to participate and asking them to identify others who might want to be interviewed. In February and March, CDM followed up with telephone calls to those individuals and found about 40 people who were willing to be interviewed. Those individuals included a broad spectrum of people affected by the site, including local residents, representatives of various agencies, the media, and members of the RAB.

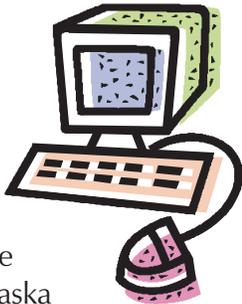
CDM is currently compiling the results of those interviews in a report to the Corps. The report will capture the concerns and ideas of the interviewees

See other side

and will provide the Corps with suggestions for enhancing communication using that information. The Corps is confident that the assessment is the first step in improving site communication so that all interested parties can work together for the benefit of the site and the community. The interview process has been completed, but the Corps always welcomes community input. If you would like to provide input, please contact Kristine Stein at kristine.m.stein@usace.army.mil.

Former NOP Website

The Corps of Engineers has launched an improved website for the former Nebraska Ordnance Plant (NOP) cleanup project. We welcome you to visit it at <http://www.nwk.usace.army.mil/projects/mead>. The website has maps, sampling information, information on containment, meetings, newsletters, fact sheets, site documents, contact information and Frequently Asked Questions. Please feel free to use the "Comment" link to offer suggestions, concerns or to obtain information regarding the former NOP.



2008 Groundwater Investigation Nearly Complete

Additional groundwater sampling work was completed in December 2008. Groundwater samples were collected from 62 individual locations at 479 depth intervals. The samples were

analyzed for volatile organic compounds (VOCs) and explosives. Samples were collected in the Load Line 1 TCE plume, in the vicinity of extraction wells EW-10 and EW-9 and in the southeastern portion of the Atlas Mission Area TCE plume.



Sonic drill rig installing a deep monitoring well
(Photo by URS)

Additionally, 54 new monitoring wells were installed in the Load Line 1 and Atlas Missile Area TCE plumes. These will be used to collect water level measurements and groundwater samples. Baseline sampling of the new wells will be performed in April 2009. The results of the direct-push groundwater sampling and the baseline monitoring well sampling will be presented in a data summary report available in spring 2009.

Removal of Underground Storage Tanks

The Corps has recently hired a contractor to remove Underground Storage Tanks (USTs) located near each of the 4 load lines. There are six 25,000-gallon tanks associated with each of the four load lines, for a total of 24 tanks. The tanks were originally used to hold #6 fuel oil for use in the boiler plants that heated the buildings in each of the load lines. The contractor is scheduled to begin field work in late June or early July. Once the contents of each tank are determined, the contractor will excavate and remove the tanks and their contents, to include all associated piping. The excavated soil and the bottom of each excavation will be sampled to be sure that no contamination remains. The UST sites will be considered closed once approval

has been received by the Nebraska Department of Environmental Quality (NDEQ).

O&M Summary

As of February 2009, operation of the Main Treatment Plant, Advanced Oxidation Process (AOP) Treatment Plant and Load Line 1 Treatment Plant have resulted in an estimated mass removal and/or treatment of:

TCE (Trichloroethylene) – 2,714 pounds

- 350 pounds from the Main Treatment Plant (February 2002 – February 2009)
- 60 pounds for the Load Line 1 Treatment Plant (February 2006 – February 2009)
- 2,304 pounds for the AOP Treatment Plant (March 2008 – February 2009)

RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine) – 120 pounds

- 131 pounds from the Main Treatment Plant (February 2002 – February 2009)



▲ Two GAC units at the Main Groundwater Treatment Plant (Photo by URS)

A total of more than seven billion gallons of groundwater have been treated by the three plants since startup of the Main Treatment Plant in 2002. Both the Main Treatment Plant and Load Line 1 Treatment Plant process water from the containment wells. The high mass removal generated by the AOP Treatment Plant is due to the nature of the extraction well FEW-11, a focused extraction well installed in a portion of the Load Line 1 plume with high concentrations of TCE.

Shutdown of Extraction Wells EW-2 and EW-5

During the annual system evaluation, the Corps determined that pumping of extraction wells EW-2 and EW-5 is no longer necessary to contain the contaminant plumes at the former NOP. The Corps therefore discontinued operation of these two wells on February 18, 2009. This action not only reduces the amount of groundwater passing through the Main Groundwater Treatment Plant, it also provides spare flow capacity in the event that additional extraction wells or modified rates at existing wells are necessary in the future. This action also reduces the amount of unnecessary groundwater being extracted from the aquifer.

Water levels in surrounding observation wells were taken prior to, and following the shutdown activities and sampling in area monitoring wells will continue to verify plume containment. The shutdown of EW-2 and EW-5 are part of the Corps' overall strategy to optimize the treatment system thus

reducing costs and limiting the impacts on the local groundwater availability.

EW-5 is being replaced with two new wells, focused extraction well FEW-14 and containment well, EW-16. These wells are currently under construction and will be operational by summer 2009. EW-1 captures the groundwater extracted by EW-2.

Update of New Extraction Well Construction

The Corps has constructed three new extraction wells (two focused extraction wells FEW-14 and FEW-15, and one containment well EW-16), and associated monitoring and observation well networks at the former NOP. Construction activities related to the extraction wells include drilling and installation of the wells, installation of well pump/motor and down-hole equipment, construction of pump houses and over 3.5 miles of buried piping.



▲ Installation of groundwater pipeline along Highway 66 (Photo by ECC)

Focused extraction well FEW-15 will be connected to a new groundwater treatment plant which will be constructed just east of the existing AOP



▲ Construction of extraction well pump house (Photo by ECC)

Treatment Plant located at County Road F and Highway 66. TCE is the contaminant of concern for the FEW-15 system and will be pre-treated at the new plant utilizing air stripping technology similar to that used successfully at the Load Line 1 treatment plant installed in 2006. The pre-treated groundwater will then continue on to be further reduced in contaminant concentration at the Main Groundwater Treatment Plant prior to being discharged.

Groundwater extracted from focused extraction well FEW-14 and containment well EW-16 will be conveyed directly to the existing Main Groundwater Treatment Plant. RDX is the contaminant of concern for FEW-14 and EW-16 and is at levels that can be effectively treated using granular activated carbon (GAC) utilized at the plant. This additional remedial effort is designed to contain and abate the migration of the Load Line 3 RDX plume.