

NEWS Letter

Former Nebraska Ordnance Plant ■ Mead, Nebraska

July 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
316 South Vine Street
Mead, Nebraska 68041
(402) 624-6605

Hours

Tuesday: 9-11 AM, 2-7 PM
Wednesday: 9-11 AM
Thursday: 9-11 AM, 2-7 PM
Saturday: 9-1 PM



US Army Corps
Of Engineers
Kansas City District

Site Tour and Open House at a New Location!

To foster community relations, the Corps of Engineers will host our annual Site Tour and Open House Wednesday, July 15, 2009. A variety of handouts and displays will be available along with refreshments. Please come join us at the Main Groundwater Treatment Plant at the junction of County Road 6 and County Road F, in Ashland, Nebraska.

The Site Tour begins at 6:00 PM. Property owners and local residents are welcome to join us for a guided bus tour that will introduce you to many resources that aid in the restoration of groundwater. The tour will begin at the Main Groundwater Treatment Plant and will begin with a demonstration of our sampling methods. We will then take the bus to visit the former Landfill area, the antimony soil removal area, the former Atlas Missile Area, and the new extraction wells.

Prior to the site tour, the Corps of Engineers' technical experts will be available from 4:00 - 6:00 PM at the Open House to answer questions or discuss any concerns. For further information regarding the meeting contact Joe Donovan at (816) 389-3587.

FEW-14/EW-16 Now In Operation

Computer modeling identified the locations of two wells required to supplement pumping at EW-4 and EW-3. As a result, focused extraction well 14 (FEW-14) and containment extraction well 16 (EW-16) were constructed. Several observation wells and monitoring wells were also installed around FEW-14 and EW-16 to monitor the functions of these new extraction wells and their impact on the plumes. FEW-14 will remove concentrated amounts of contaminants and EW-16 will maintain containment of the plume.

Operation of FEW-14 and EW-16 has allowed EW-5 to be shut off. In addition, EW-2 has been shut off. Field collections over recent years have indicated that EW-2 was not addressing any area of contaminated groundwater and was, therefore, not required to maintain hydraulic capture. The shut-down of EW-2 and EW-5 has provided available treatment capacity at the Main Groundwater Treatment Plant. As a result, flow from the two new extraction wells is easily accommodated at the plant.

Contaminated groundwater pumped from FEW-14 and EW-16 is piped to the Main Groundwater Treatment Plant for treatment with granular activated carbon (GAC) and is discharged from there. The treated water meets existing Nebraska discharge water quality standards.

Because EW-2 and EW-5 were turned off before FEW-14 and EW-16 went online, there was no increase in the amount of groundwater extracted. Also to be noted, the new extraction wells are in an area where there are no existing irrigation, public water supply, or industrial wells within 1,000 feet of either extraction well. Installation of FEW-14 and EW-16 met the Nebraska standards, and a locally-licensed well driller installed both new wells.

Removal of USTs - UPDATE

As mentioned in the April Newsletter, the USACE has recently hired a contractor to remove 24 Underground Storage Tanks (USTs) located on the former Nebraska Ordnance Plant site. Removal of the tanks is currently scheduled to begin in late August and be completed by the end of the year. Although not anticipated, any contamination from the USTs will be investigated and, if necessary, cleaned up in accordance with NDEQ requirements.

When Does the Corps of Engineers Sample Private Wells?

As part of the Corps' commitment to public safety, we test all privately owned drinking water wells for each home that is close to the contamination. The area that is less than one-half mile away from the contamination plume is called the "Half-Mile Buffer Zone". The area that is less than 1 mile away from the contamination is called the "One-Mile Buffer Zone". The private wells inside the Half-Mile Buffer Zone are sampled twice a year, and the private wells in the

One-Mile Buffer Zone are sampled once a year. We are pleased to report that no contamination has been detected in any of the private drinking water wells in the One-Mile Buffer Zone. Very low levels of contamination, below respective action levels and therefore still safe to drink, have been detected in five of the private wells in the Half-Mile Buffer Zone, and no contamination at all has been detected in any of the other private wells. The testing results from the private wells have been consistent with very few changes or new results over the past 5 years. The Corps will continue to test the private wells to make sure this holds

true. If the contamination ever spreads or moves then we will change the boundaries of the buffer zone to make sure that we continue to test any private well that is close to the contamination. If new homes are constructed inside the buffer zones, then we will add them to our list, and start testing those homes as well. Below is a site map that shows where the contamination is located and where the private wells are in relation to the buffer zones. This same map can be found at <http://www.nwk.usace.army.mil/projects/mead/SiteTech/2009-July-Newsletter-Map.pdf>.

Communication

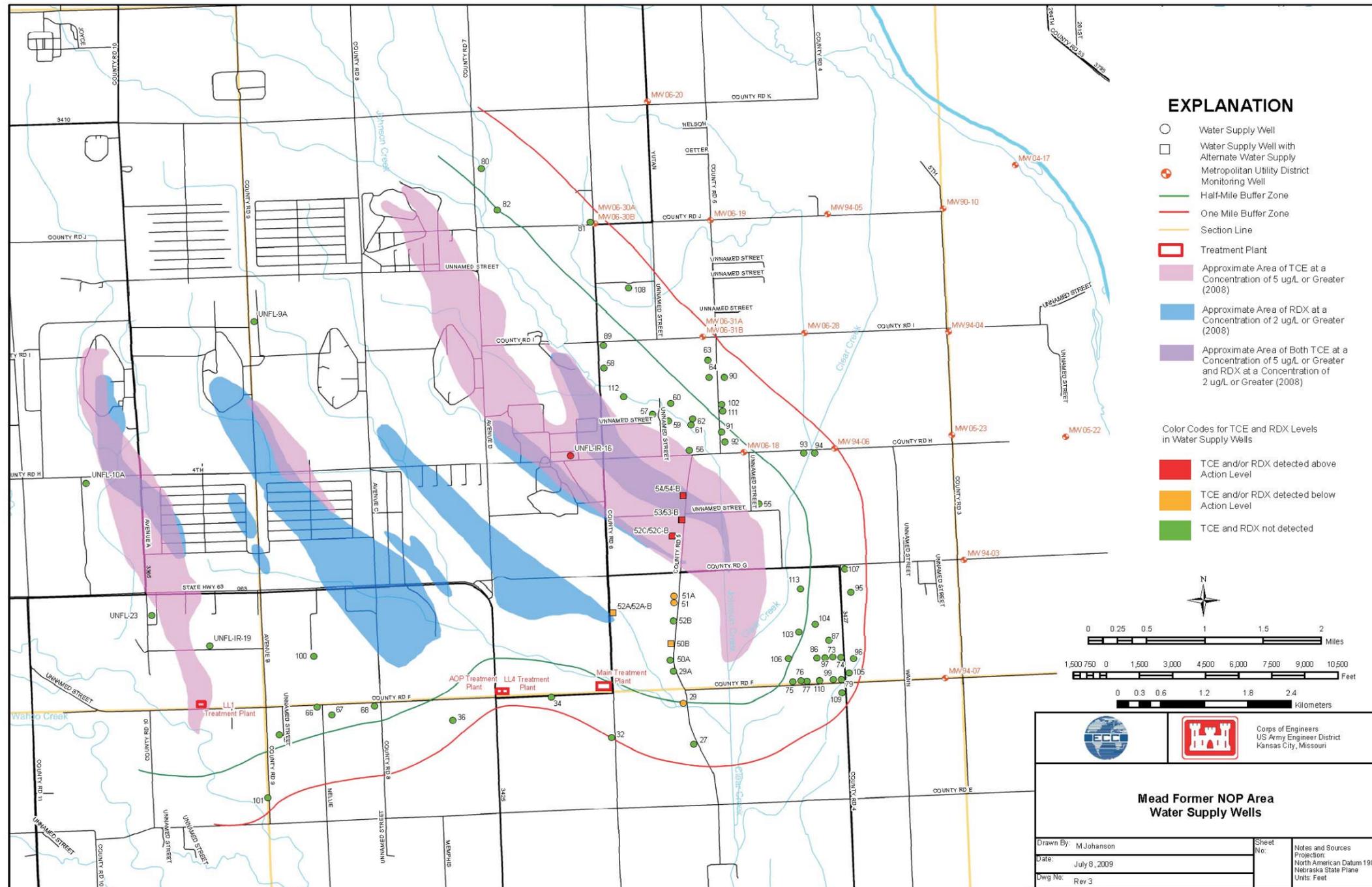
Communication between the Corps of Engineers and the local community is a very important element of the cleanup process for the former Nebraska Ordnance Plant. Because we feel that communications have suffered in the past few years, the Corps of Engineers is taking new steps to improve the way we reach out to nearby property owners, residents, and other stakeholders.

To better facilitate two-way communication, and give us the opportunity to listen to the different opinions and concerns, we are available to meet with your clubs or organizations, such as a PTA meeting, club, homeowners association, business or school. We would also like to see you at our quarterly open house meetings where we will continue to keep you informed of our progress and do our best to answer all of your questions, on the spot. When there, feel free to pick up brochures, fact sheets or any of the informative information we bring.

Another way we are reaching out is through our website, which we are continually trying to improve with new ideas. Our website has a wealth of information concerning the property at the former Nebraska Ordnance Plant. You can see maps, find fact sheets, examine sample results, read about the project history or find out when the next open house will be. We are hoping to add two new pages soon. The first is a Frequently Asked Questions (FAQ) page. Currently, we have 15 questions that our experts have answered in an easy-to-read, non-technical manner. The other page will be called 'Kristine's Korner' (after Kristine Stein our project manager). Kristine and her 'cast' of experts will develop answers for all your current questions and concerns.

As we continue with the clean-up of the site, we hope to continue improving our communication with you. We are trying to listen carefully. Please feel free to let us know how we can keep you informed. Also, please feel free to submit any questions you have via letter, phone call, or e-mail. We will answer all questions received, and if it's a common question, we'll add it to our fact sheets and website as a "frequently asked question."

For more information visit our website at <http://www.nwk.usace.army.mil/projects/mead/>. If you have comments or questions, feel free to contact our Project Manager, Ms. Kristine Stein at kristine.m.stein@usace.army.mil.



O&M Summary

As of the end of May 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) – 8,757 pounds

- 350 pounds from the Main Treatment Plant (February 2002 – May 2009)
- 68 pounds for the Load Line 1 Treatment Plant (February 2006 – May 2009)
- 8,339 pounds for the AOP Treatment Plant (March 2008 – May 2009)

RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine) – 137 pounds

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



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

A total of more than eight 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.

Beneficial Reuse of Treated Groundwater

Striving for responsible and conservation-focused water management, the Corps of Engineers has developed a beneficial solution for the reuse of treated groundwater. Meeting all regulations and approved by EPA and NDEQ, the solution also assists in planning for conservation of groundwater and for the local long-term water needs. This plan includes the reuse of treated groundwater for irrigation purposes and the installation of local fire hydrants that were previously not feasible in the area.

The water treatment systems employ the latest technology for treating contaminated groundwater to a safe level prior to discharge. The treated water is routinely monitored and meets the Nebraska discharge water quality standards.

Currently, treated groundwater leaving the treatment system is available to local land owners for irrigation purposes. If adequate water is available to support the request, Lower Platte North Natural Resources District (LPNNRD) establishes a cooperative agreement with each individual.

During the growing season, all the treated groundwater is reused for irrigation, and fire protection. Then, during the rest of the year, the treated groundwater is still used for fire protection, and is available for other users. For additional information related to beneficial reuse, contact the LPNNRD, Larry Angle, at (402) 443-4675.



Irrigation System (Photo by ECC)

Removal of Johnson Creek Signs

In December 2007, at the request of community members, signs were placed along Johnson Creek between County Roads F, G, and H. The signs read, "No Trespassing, Surface Water Exposure Health Hazards" and were intended as a precautionary measure pending an evaluation of the risks associated with contamination located in the creek surface water. Signs were placed in the county right of way where possible and on privately owned land with permission. Several signs have since been removed due to landowner request. A review of the original CERCLA risk evaluation was recently conducted. It included additional assessments of scenarios in which a child or adult may come in contact with the surface water in Johnson Creek. This review indicated that the scenarios or exposures to surface water in Johnson Creek are within the acceptable risk based ranges set by CERCLA. According to the CERCLA standards, the contamination levels of RDX and TCE in the surface water along Johnson Creek are below a level which would require any action. Based upon this review, the remaining signs along Johnson Creek are not accurate and will therefore be removed.