

**BRUNO CO-OP
ASSOCIATION/
ASSOCIATED
PROPERTIES**

NEBRASKA

EPA ID# NED981713829

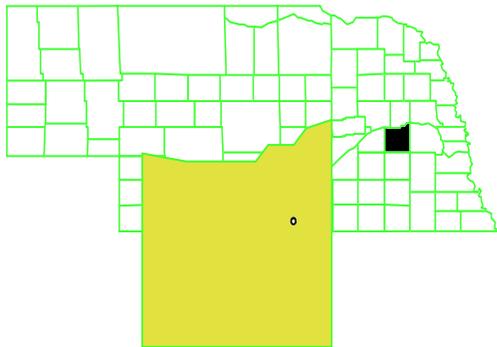
EPA Region 7

City: Bruno

County: Butler County

Other Names:

12/22/2008



SITE DESCRIPTION

The Bruno Cooperative Association/Associated Properties (Bruno Co-op) site is located in Bruno, Nebraska and is an active farmers cooperative that also includes two formerly contaminated municipal wells and an associated groundwater plume containing grain fumigants. One well is located at the intersection of Pine and Third Streets and the second well was positioned 1,000 feet northwest of the first and located on property that has been used to store grain since the 1940s. The second well has been properly abandoned as part of the cleanup action. The site was originally owned by the Chicago and North Western Railway Company from 1947 to the 1960s and part of the property was leased to the U.S. Department of Agriculture (USDA) which used it as a federal grain storage facility. Local farmers purchased all but one of the corn crib bins in 1964 and moved them off-site. The Bruno Co-op purchased the remaining bin and in 1988 the company also purchased Wagner Mills, Incorporated, a second business operating on the site. Currently, the Bruno Co-op has two functional bins.

Volatile organic compounds (VOCs) were first detected in 1986 by the Nebraska Department of Health (NDOH). These contaminants had been poured or pumped into the grain as fumigants and were also disposed at the surface for rodent control. The surrounding area is primarily agricultural, with a limited amount of commercial and residential use.

Remedial action cleanup work at the site is complete and the operating remedy is in long-term operation and maintenance (O&M). A groundwater pump and treat system was designed and constructed by responsible parties in 2004/2005 under a Consent Decree with the EPA. The

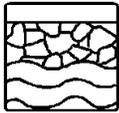
responsible parties are also conducting the O&M and funding the EPA's oversight costs.

Site Responsibility:

The site is being addressed through federal and state oversight of responsible parties conducting cleanup activities under a Consent Decree.

NPL LISTING HISTORY	
Proposed Date:	10/14/92
Final Date:	06/17/96
Deleted Date:	

THREATS AND CONTAMINANTS



The EPA and NDOH have conducted tests and detected various VOCs, including carbon tetrachloride, chloroform, and 1,2-dichloroethane in two former municipal wells. A subsurface VOC groundwater plume is emanating from the site. People who ingest or come into direct contact with groundwater containing these contaminants could be at risk. Groundwater institutional controls are in place to restrict use of the impacted aquifer in the vicinity of the site. Groundwater is heavily used for agricultural purposes in this region and may also be used by individuals with private wells as a drinking water source. People within the Bruno community use two new municipal wells that provide the village with good quality drinking water and thus do not currently consume water from the impacted former municipal wells. One of the former wells has been abandoned and a groundwater pump and treat system has been constructed and is operational. Institutional controls restrict the use of the upper aquifer. Another potential threat includes the migration of hazardous vapors from the impacted groundwater plume to overlying structures. An evaluation of this potential pathway was conducted in 2007 and determined that the vapor pathway was not an issue at the site.

CLEANUP APPROACH

Response Action Status

Initial Actions: The EPA supplied bottled water to 150 Bruno residents from mid-1989 to late 1990 as the Bruno Public Water Supply Company constructed new municipal supply wells. Site characterization activities were initiated by the USDA with oversight by the EPA and the Nebraska Department of Environmental Quality (NDEQ).

Entire Site: The investigation of the nature and extent of contamination was completed in the

fall of 1994 and the subsequent Feasibility Study was completed in July of 1998. A Record of Decision (ROD) was signed on September 30, 1998; the selected remedy included groundwater treatment using extraction and air stripping technology. Additional components of the remedy included the abandonment of one of the former municipal supply wells (#36-1), treatment of water from the other historic well (#65-1) during times of high demand so that it could be used as a seasonal supplemental source of drinking water, and beneficial re-use of the air-stripped effluent water by the Village of Bruno. This element of the remedy is currently not necessary because the Village of Bruno has acquired a new source of drinking water. Pipelines have been constructed to convey water from David City, Nebraska to the Village of Bruno. This work was complete in 2006.

An engineering study was completed subsequent to the ROD to determine if a more efficient treatment technology, groundwater circulation wells (GCWs), would be applicable to the cleanup at Bruno. The study was completed in 2000 and indicated that the original remedy selected in the 1998 ROD was the optimum choice. The cost of the original remedy was updated and an Explanation of Significant Differences (ESD) was finalized in August, 2000, following a public comment period. The ESD elaborated on the cost increase over time and updated the decision document following the completion of the GCW technology study.

Negotiations with the responsible parties were initiated following the release of the ESD and an agreement was reached in 2002. A Consent Decree for remedial design and remedial action (RD/RA) was lodged on October 17, 2002. The RD/RA work was conducted by the Union Pacific Railroad Company with partial funding provided by the USDA and local administrative support by the Bruno Cooperative Association. These three entities are the signatories to the Consent Decree entered into with the EPA. The remedial action was completed in 2005 and the remedy is currently in long-term O&M.

A second ESD for groundwater institutional controls was released in September, 2005, to ensure protectiveness in regard to use of the upper impacted aquifer. The goals of this ESD were to prohibit domestic use of impacted groundwater and prevent hydraulic influence of the operational pump and treat system. Groundwater institutional controls consisting of a restrictive ordinance by the Village of Bruno is in place. The ordinance prohibits the installation of any new domestic or agricultural wells without permission of the Bruno Village Board. The area subject to the ordinance includes the area overlying the site groundwater plume and also extends to one mile beyond the Village of Bruno boundary.

A vapor intrusion pathway assessment was conducted in 2007. The work included the construction of permanent soil gas monitoring wells to assess any vapor impacts to areas overlying the impacted groundwater plume. The engineering plans for this work were developed in 2006 and early 2007. The work was completed in 2007 and resulted in a determination that vapor intrusion was not a health threat at the site.



Cleanup Ongoing: The remedial design began in October, 2002, and was completed in April, 2004. Conestoga-Rovers and Associates was the primary contractor of the Union Pacific Railroad Company and thus conducted the RD/RA

responsible party work at the site. The remedial design included the performance of design investigation studies that were conducted in the fall of 2003. The preliminary/intermediate design report was approved in November, 2003, and the final remedial design report was approved in April, 2004. The remedial action began in April, 2004, and was substantially complete by December, 2004. The cleanup contractor was General Excavating of Lincoln, Nebraska. Physical on-site construction began in August, 2004, and was certified as complete in September, 2005. The remedial action included the following elements: four groundwater remediation extraction wells were installed, a groundwater treatment building was built and associated equipment installed, pipelines from the extraction wells to the treatment building and from the treatment building to the discharge area were constructed; former municipal well 36-1 was abandoned; and beneficial re-use water (stripper effluent) was made available to the public. O&M is ongoing and being conducted by the responsible parties. Vapor intrusion assessment work was completed in 2007 by the responsible parties and the results indicated that this pathway is not an issue at the site.

Site Facts: The site is a former USDA grain bin facility with an underlying groundwater plume containing carbon tetrachloride, chloroform, and 1,2-dichloroethane. The Bruno Co-op currently operates the facility that is an active farmers cooperative association involved in grain storage activities. The Village of Bruno is a small rural farming community with a population of less than 200 people. The two municipal wells serving the village were impacted thus requiring the temporary provision of bottled water to village residents prior to the construction of two new municipal wells. The new wells are a permanent source of drinking water and the impacted groundwater plume is hydraulically controlled following the design and construction of a pump and treat system. The selected remedy also included abandonment of one of the former municipal wells (#36-1) and seasonal treatment of the other municipal well (#65-1) during times of water shortage (conditions have not warranted implementation of this element to date and a new source of water for the Village of Bruno, pipelines from David City, Nebraska, has now made this element unnecessary). The cleaned, air-stripped water is made available for beneficial re-use by the public for non-potable purposes. The cleanup was conducted by responsible parties via a Consent Decree under

oversight by the EPA and the NDEQ. The project is currently in the long-term O&M phase. Vapor intrusion assessment activities were completed in 2007 and found that the vapor pathway was not an issue at the site.

ENVIRONMENTAL PROGRESS



By providing bottled water to affected residents, the immediate threats posed to the nearby population were eliminated pending the construction of two new permanent municipal supply wells. These actions allowed the historic contaminated wells to be taken out of service and provided the population with a clean source of drinking water. Site characterization studies were completed and cleanup alternatives were evaluated prior to the selection of a remediation approach embodied in the ROD. Additional cleanup approach enhancements were evaluated by the completion of another engineering study and an ESD was released as the final cleanup decision document. Negotiations with the responsible parties were undertaken and resulted in the successful completion of a Consent Decree to implement the selected cleanup alternative. The construction of the cleanup systems was completed and the remedy is now in the O&M phase. Groundwater from the clean-up system is being beneficially re-used by the local community for non-potable uses. A second ESD for groundwater institutional controls was released following completion of the remedial action to ensure remedy protectiveness over time. A soil vapor intrusion assessment was performed in 2007 in order to characterize any potential vapor pathway impacts at the site. The results of this study indicated that the air pathway was not a threat at the site.

COMMUNITY INVOLVEMENT

Frequent meetings and discussions have been held with members of the Bruno Co-op board and the Bruno Village board. The EPA regularly attends board meetings held by the mayor and village board members to provide updates regarding progress and future plans for the environmental work being conducted at the site. Many conversations have been held with the mayor, village engineer, and village water director throughout the process. Additionally, public meetings and availability sessions have been held at the site to inform the general public of the actions proposed and to solicit public input on the planned work. In general, the community has been very involved and supportive of the environmental work being conducted at the site.

SITE REPOSITORY



Bruno Post Office
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Bruno, NE 68014

Superfund Records Center
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Kansas City, KS 66101
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REGIONAL CONTACTS

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COMMUNITY INVOLVEMENT

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MISCELLANEOUS INFORMATION

STATE:

NE
07DH

CONGRESSIONAL DISTRICT:

01

EPA ORGANIZATION:

SFD-SUPR/FFSE

MODIFICATIONS

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