



Memorandum

To: Ed Chu, Deputy Regional Administrator, EPA Region 7

From: Jim Macy, Director, Nebraska DEQ

Date: September 7, 2017

Re: Fund-lead West Highway 6 & Highway 281 Superfund Site (more familiarly referred to as the Dana Corporation Site, Hastings, Nebraska)

Issue: EPA region 7 has issued a Proposed Plan selecting a preferred remedial alternative for restoration of groundwater contamination with a longer restoration timeframe that will increase the State's operation and maintenance costs. EPA Region 7 is in the final stages of decision-making on this project.

Proposed solution: Nebraska Department of Environmental Quality proposes to select a more aggressive groundwater remedial alternative to reduce the overall restoration timeframe, save approximately \$3.6 million to the State in operation and maintenance costs and facilitate redevelopment and reuse of on-site and down gradient properties.

Timeline: In 1999, Dana enrolled in NDEQ's voluntary cleanup program to identify the extent of soil and groundwater contamination beneath its facility. By 2003, Dana had installed and started operating a soil vapor extraction (SVE) system and a groundwater extraction and treatment (GET) system to address the contaminated soil and groundwater and continued operating these systems over the next couple of years. After unsuccessful attempts by NDEQ to get Dana to address contaminants that had migrated off the facility property, NDEQ collected groundwater samples from private and public drinking water wells and detected Dana-related contaminants at levels of concern at numerous locations. Dana's unwillingness to address the off-site contamination led to NDEQ's request for assistance from EPA.

Responding to NDEQ's request, EPA assumed the lead oversight role in 2005 and proposed the site to the National Priorities List (NPL) in September 2005. Shortly after, in March 2006, Dana declared Chapter 11 bankruptcy. The site was finalized on the NPL in April 2006. EPA initiated time-critical removal activities in July 2006 to continue operating and maintaining the existing GET and SVE systems. EPA also monitored water quality in private residential/business wells downgradient of the facility and provided alternate water when the wells were found to be impacted above acceptable levels. In September 2006, EPA began remedial investigation activities. In September 2006, EPA filed a claim against the Dana bankruptcy and recovered approximately \$2.1 million that is currently in a special account for the site. EPA recently finished the feasibility study and issued a proposed plan on August 15, 2017 to address the off-site groundwater contamination. A public meeting on the proposed plan was held on August 23, 2017. A record of decision (ROD) selecting the remedy will be completed by the end of September, 2017. The on-site existing GET and SVE systems will continue to be operated by the EPA

removal program until a feasibility study, proposed plan and record of decision (ROD) are completed in the future.

Background: The NDEQ Remediation Section has been in discussions with EPA regarding the potential remedial alternatives under consideration, groundwater extraction and treatment at the leading edge of the contaminant plume only (alternative G3) or groundwater extraction and treatment at mid-plume and leading edge of plume (alternative G4). NDEQ's preferred alternative is the mid-plume/leading edge alternative, mostly due to the decreased estimated cleanup time frame (16 years vs. 30 years for the leading edge-only alternative) and the estimated long-term cost savings of approximately \$3.6 million to the State in future operation and maintenance costs. EPA's preferred alternative is the leading edge only alternative, G3. Until the week before releasing the proposed plan NDEQ thought that EPA would prefer mid-plume/leading edge, G4, but then found out that based on what EPA considers miscalculations in the draft comparative analysis of alternatives and focusing on the reassessment of several "balancing criteria" in that analysis, EPA now prefers leading edge only, G3. Briefly stated, EPA believes that when taken all together, the balancing criteria for the two options essentially cancel themselves out. Therefore, in EPA's opinion, the sole remaining criteria is the Present Value Costs associated with the alternatives:

- Leading Edge Only Extraction - \$9,017,000
- Mid-plume & Leading Edge Extraction - \$12,757,000

In a letter dated August 21, 2017, NDEQ did not concur with the EPA's preferred alternative. This determination was based on the selected G3 remedial alternative has an estimated restoration time frame of 30 years versus an estimated restoration time frame of 16 years for remedial alternative G4 (Groundwater Recovery, Treatment, and Discharge at Mid-plume and Leading Edge of Plume). This selection is contrary to recent EPA Headquarters' goals and objectives of accelerating the pace of cleanups, quicker restoration time frames, and the facilitation and promotion of redevelopment and reuse of on-site and downgradient properties. NDEQ estimates (below) that the selection of Alternative G3 would increase the State's future Operation & Maintenance obligations to approximately \$3,627,000 more than would be incurred by the selection of Alternative G4.

G3 annual O&M cost \$241,000 X 20 yrs (we pay 100% for yrs 11-30) = \$4,820,000

G3 monitoring cost \$67,000 X 20 yrs = \$1,340,000

G3 periodic cost = \$107,000

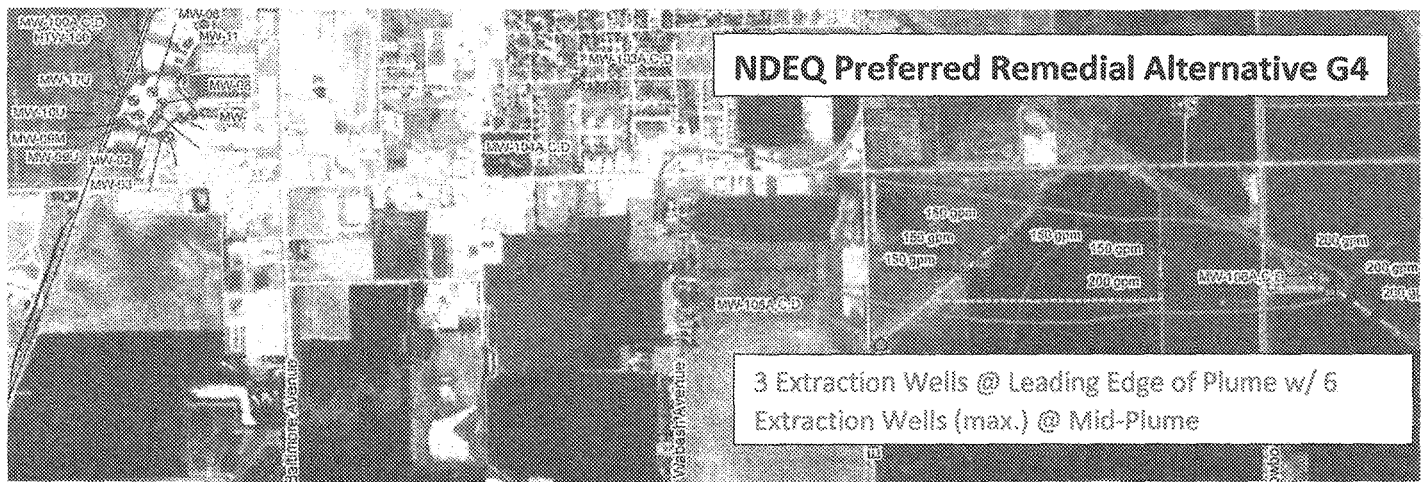
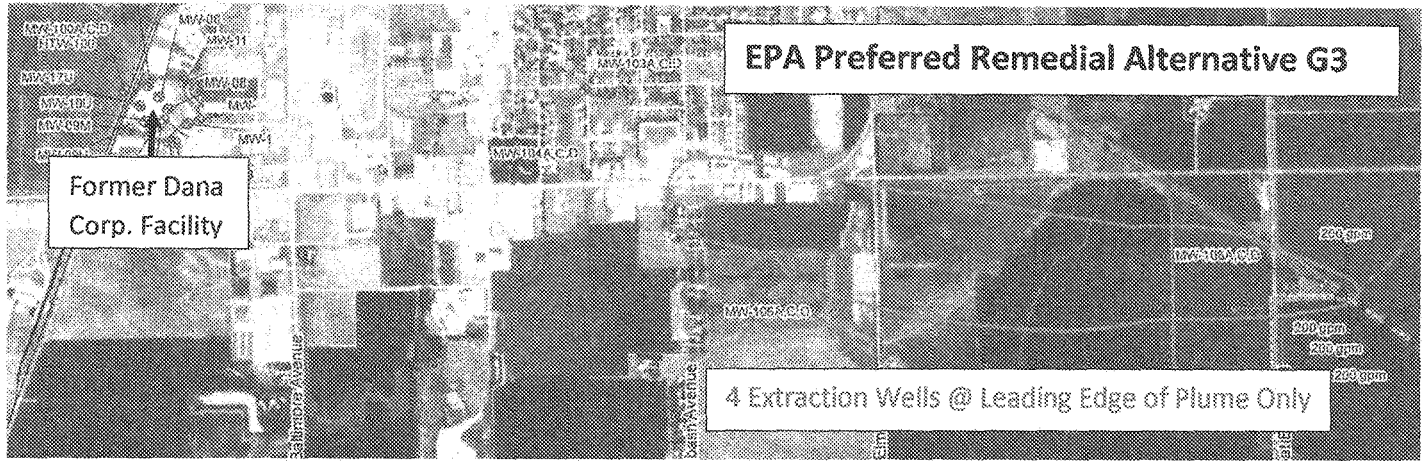
G3 total O&M by State = \$6,267,000

G4 annual O&M cost \$373,000 x 6 yrs (we pay 100% for years 11-16) = \$2,238,000

G4 monitoring cost \$67,000 X 6 yrs = \$402,000

G4 total O&M by State = \$2,640,000

Difference between G3 and G4 = \$6,267,000 - \$2,640,000 = \$3,627,000



Note: Figures adapted from EPA Feasibility Study (July 2017) Figures 7.1 & 7.2