

Analysis of Brownfields Cleanup Alternatives

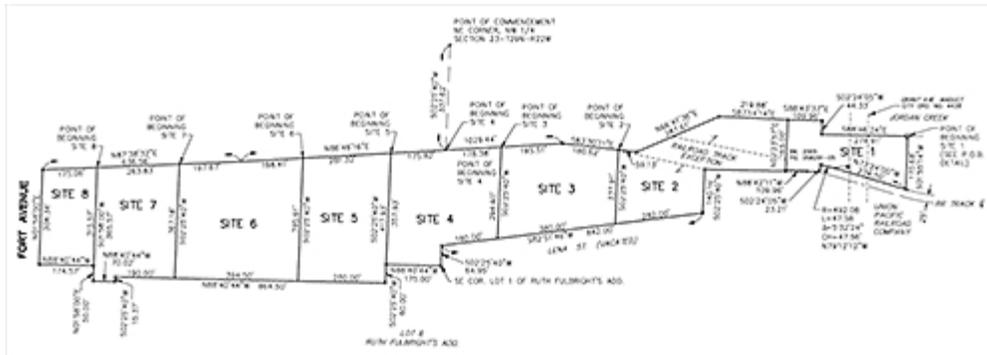
Jordan Valley West Meadows, Site #1 through Site #8

Date of ABCAs: October and November 2009

Assessment Funding:

- Site 1: EPA Cooperative Agreement BF-98796601-0 (cleanup)
- Site 2 and 3: EPA Cooperative Agreement BF-98788001 (RLF cleanup subgrant)
- Site 4: EPA ARRA Haz. Sub. Cooperative Agreement 2B97707901 (cleanup)
- Site 5, 6, 7, and 8: EPA Hazardous Assessment Grant #2B-97707801

Acres: approximately 14 total



ABCAs are required by grant recipients under the United States Environmental Protection Agency's (USEPA) Brownfields program. The ABCAs are required by the USEPA's EPA Brownfields program to include:

- Information about the site and contamination issues (e.g., exposure pathways, identification of contaminant sources, etc.), cleanup standards, applicable laws, alternatives considered, and the proposed cleanup.
- Effectiveness, implementability, and the cost of the proposed cleanup.
- An analysis of reasonable alternatives including no action. For cleanup of brownfield petroleum-only sites, an analysis of cleanup alternatives must include considering a range of proven cleanup methods including identification of contaminant sources, exposure pathways, and an evaluation of corrective measures. The cleanup method chosen must be based on this analysis.

Site Background

The Jordan Valley West Meadows area (Sites #1 through #8) occupies approximately 14 acres of commercial and light industrial land in central Springfield, Missouri. The property includes a railroad corridor parcel that spans east from North Fort Avenue to North Grant Avenue, between West Phelps Street to the north and West College Street to the south.

The area is currently unoccupied with several former concrete building foundations, multiple large piles of concrete, several piles of household refuse, and a few wooded areas. A segment of Jordan Creek intersects the eastern portion of the area and bounds the majority of the property on the south. Additional railroad properties bound the site on the north and south. Commercial and light industrial facilities bound the area on the east and west.

Historical records generally indicate initial development of the area as a railroad maintenance facility prior to 1896. Most associated structures were apparently removed prior to 1960. Available records further suggest operation of a concrete batch facility from the mid 1970s through 1995. The site has been vacant since 2001.

Findings

Based on effectiveness of protecting human health and the environment, implementability, and cost, the recommended cleanup alternative for Sites #1 through #8 is **risk-based corrective action and management** scenarios. This approach would remove or encapsulate contaminants while managing residual impacts through clean fill and vegetative coverage. Potential exposure pathways are mitigated without the escalated cost and liabilities tied to larger volume removals.

Advantages

- Removal of most concentrated source area(s);
- Cost effective and practical scenario evaluated;
- Cleanup efforts include proven and easily applied remediation strategies;
- Includes risk-based corrective action and management consistent with B/VCP requirements;
- Costs could be further reduced through cooperative landfill agreements (e.g. reduced tipping fees) and/or alternative disposal such as beneficial reuse of non-permitted fills with appropriate restrictions;
- No ongoing remediation system operation and maintenance costs, excluding routine cap inspections and landscaping; and
- Approach is consistent with current redevelopment planning and community and neighborhood vision.

Disadvantages

- Soil encapsulation and risk-based management would restrict land use and likely warrant deed restrictions and/or institutional controls;
- Future site improvements would likely require soil management plans and appropriate contingency planning; and
- Engineered cap would require ongoing inspections, maintenance, and regulatory oversight.