

November 8, 2023
Analysis of Brownfield Cleanup Alternatives for
Five Points

Introduction and Background

The Redevelopment Authority of the City of Milwaukee (RACM) was selected to administer a United States Environmental Protection Agency (USEPA) Brownfields Cleanup Revolving Loan Fund (BCRLF). The first Cooperative Agreement was received in 2002, which provided \$1,000,000 in federal assistance over a five-year period. Additional Cooperative Agreements were received in 2003, 2004 (amended the 2003 agreement), 2005, 2006, 2007, 2008 (amended the 2007 agreement), 2009, 2011 (amended the 2009 agreement), 2012 (amended the 2009 agreement), 2013 (amended the 2009 agreement), 2014, and 2023 respectively for a total of \$13,200,000.

On November 16, 2023, a resolution will be introduced that will allow for RACM to provide up to a \$700,000 loan to Five Points MLKEDC, LLC for an affordable housing mixed-use development project from the RACM's EPA BCRLF Program to support environmental remediation at the property located at five parcels on the northwest side of North Doctor Martin Luther King Junior Drive and West Concordia Avenue (3317-29, 3333-35, 3341, and 3345-49 North Doctor Martin Luther King Junior Drive and 456 West Concordia Avenue, Milwaukee, Wisconsin).

The City of Milwaukee and the Redevelopment Authority of the City of Milwaukee currently own all five parcels. Five Points MLKEDC, LLC intends to purchase the property in late 2023, remediate the property, and redevelop the site into a 55-unit mixed use residential/commercial development including 46 affordable units, 9 market-rate units, an activated green space, community event space, and diverse retail opportunities.

The Five Points site was historically occupied with various residential and commercial buildings, including a printing operation, a paint store, and a repair shop for pianos and refrigerators. Historical records indicate that gasoline engines were in place and that kerosene was being stored in drums in some of the historical buildings. Additionally, there was a recorded paint spill and fire. The site is currently a vacant grassy lot.

The subject sites became contaminated as a result of their past uses and historical fill material. Phase II environmental site investigation to date has identified the presence of polynuclear aromatic hydrocarbons (PAHs) and metals in both soil and groundwater.

An AAI Phase I Environmental Site Assessment was completed in May 2023 for the development group to ensure the future owner is considered a bona fide prospective purchaser.

Phase II environmental site investigation activities were conducted from February through April of 2022. The Phase II activities identified the presence of PAH and metals (cadmium, lead, and selenium) in soils at concentrations above NR 720 residual contaminant levels (RCLs). In groundwater, concentrations of several PAHs were detected at levels greater than NR 140 preventative action limits (PALs) and/or Enforcement Standards (ESs). Based on the contaminant concentrations identified, the

Wisconsin Department of Natural Resources (WDNR) was notified and an Environmental Repair Program (ERP) Site (BRRTS #02-41-589558) activity was opened.

Applicable Regulations and Cleanup Standards

Notification of a release and assignment of BRRTS numbers by the Southeast Region of the Wisconsin Department of Natural Resources (WDNR) is complete, and therefore the site is subject to the requirements of Section 292.11 (3) Wisconsin Statutes (hazardous substances spill law) and Wisconsin Administrative Code chapters NR 700 through NR 749 (which establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure). The borrowers, in coordination with qualified consultants, will complete a Site Investigation and Remedial Action Plan for the site in accordance with all applicable state statutes and WAC chapters. The Remedial Action Plan will be submitted to WDNR for comment and approval prior to cleanup and will form the basis for the cleanup activities.

Cleanup at the site will continue to be monitored by staff at the WDNR. Cleanup will be targeted to meet relevant industrial standards set forth in Wisconsin Administrative Code (WAC) chapter NR 720 (Soil Cleanup Standards) and WAC chapter NR 746 (Risk screening and closure criteria for petroleum product contaminated sites, and agency roles and responsibilities).

Evaluation of Cleanup Alternatives

This section identifies various remediation alternatives that could be used to address the environmental contamination issues at the Five Points site. The “No Action Alternative” is used as the baseline against which the other alternatives are analyzed.

The following broad categories of evaluation criteria were considered in assembling remediation alternatives at the site: effectiveness, implementability, cost, and sustainability (climate change impacts and greener cleanups).

Alternative One – No Action / Monitored Natural Attenuation

The no-action response involves no remediation of residual impacted soil at the site. This response typically serves as a baseline against which the other remedial options and technologies can be compared. The no-action response may be used as the sole remedial action only in the event the prevailing site conditions lead to the determination that the site poses no significant risk to human health or the environment with no controls in place. In that event, implementation of other types of action becomes unnecessary.

1. Effectiveness – The no-action alternative would do little to address the PAH or metals impacted soil and groundwater. This alternative would not take action to protect public health, safety, and welfare and the environment.
2. Implementability – This alternative is implementable.
3. Cost – This alternative was considered the lowest in terms of present worth cost and disruption to the site. It has no associated capital costs or operation and maintenance costs, although indirect

costs of the no action alternative will include a continued blighting influence on surrounding properties which would be manifested in lower property values and a decreased tax base.

4. Sustainability – The United States Global Change Research Program finds that the Midwest region will likely see future climate changes that include an overall increase in winter and summer temperatures, increasing numbers of hot days, and an increasing numbers of wet days. Climate change impacts to the No Action Alternative are expected to be minimal as the site is not near a coastline or in a floodplain. This alternative would not be expected to directly impact climate change. While this alternative leaves soil in place and does not lead to trucking emissions or an increase in area landfill volume, the site remains a brownfield with limited redevelopment opportunity, and so would not be considered a “greener cleanup”.

Alternative Two – Excavation and Off-Site Landfill Disposal

Additional excavation and off-site disposal of soil in the areas with residual impacts was evaluated as a possible remedial alternative. Under this alternative, all impacted soils would be excavated and disposed of at an area licensed landfill, followed by backfilling of the excavation to the planned grade with unimpacted soil or subbase aggregate. Under this alternative, neither capping nor registration on the WDNR’s GIS database would be required.

1. Effectiveness – This alternative would be effective. However, the site contaminants would be simply moved to an off-site landfill, and the excavation and transportation of the impacted soil may present health and risks that may be greater than the risks posed by leaving the soil in place. In the short term, excavation and off-site transport of impacted soil would temporarily increase hazards to site workers and the public due to the necessary handling and transportation of these soils. In the long term, excavation and off-site disposal may somewhat reduce the magnitude of existing risk at the site by contaminant mass removal compared to no action.
2. Implementability – The implementability of this remedial alternative is low given the cost it would take to excavate, and then backfill, all impacted soils. The site also would experience extreme disruption.
3. Cost – The estimated capital costs are anticipated to be very high.
4. Sustainability – The United States Global Change Research Program finds that the Midwest region will likely see future climate changes that include an overall increase in winter and summer temperatures, increasing numbers of hot days, and an increasing numbers of wet days. Climate change impacts to the Excavation and Off-Site Landfill Disposal Alternative are expected to be minimal as the site is not near a coastline or in a floodplain. This alternative would generate excessive greenhouse gases due to the large number of truck trips it would take to transport all impacted soils to an area landfill. These soils would also use an excessive amount of volume in the landfill, and therefore would not be considered a “greener cleanup”.

Alternative Three – Limited Soil Excavation and Off-Site Disposal with On-Site Soil Management and Engineering and Institutional Controls

This alternative best fits the planned redevelopment of the site, which require some soil excavation, grading, and soil management, and also includes site infrastructure that could be used as an environmental cap/barrier. Soil would be excavated largely from the western portion of the site which currently has a higher grade and would be used onsite to the extent possible, with excess soils being

properly disposed of off-site. The proposed engineered barrier would consist of concrete building floor slabs, concrete pavements and sidewalks, asphalt pavements, clean soil barrier, and potential installation of a permeable pavement. The site would be listed on the WDNR database to notify the public of residual soil and groundwater impacts.

1. Effectiveness – This alternative would be effective at reducing the magnitude of the existing risk, while maintaining protection from direct contact exposures to site workers and the public.
2. Implementability – The implementability of this alternative is high. The use of engineered barriers and institutional controls in conjunction with the WDNR database for soil contamination is an existing proven mechanism, with no fewer disruptions to the Site and less unnecessary soil handling.
3. Cost – Compared to the complete excavation and offsite landfill disposal of impacted soil remediation alternative, the associated capital costs for this option are much lower than Alternative 2.
4. Sustainability – The United States Global Change Research Program finds that the Midwest region will likely see future climate changes that include an overall increase in winter and summer temperatures, increasing numbers of hot days, and an increasing numbers of wet days. Climate change impacts to this alternative are expected to be minimal as the site is not near a coastline or in a floodplain. This alternative would generate some greenhouse gases due to the need to transport some impacted soils to an area landfill, but would be less than Alternative 2. These soils would also use some amount of volume in the landfill, however it would be less than Alternative 2 and would therefore be considered a “greener cleanup” of the various options considered.

Recommendation

The Remedial Alternatives were evaluated based on their effectiveness, their feasibility of implementation, the costs of each alternative, and their level of sustainability. Based on the above evaluation, the selected final remedy is Alternative Three which uses limited excavation and off-site landfill disposal with on-site soil management and institutional and engineering controls to address VOC, PAHs, and metals concentrations in soil and groundwater. As a whole, this alternative provides both the most efficient cleanup strategy and the best protection for human health and the environment.