

Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation

Lake Street Oil Farm Site, 317-325 Lake Street, Salisbury, MD

MD Brownfields Master Inventory Number: MD2091

Prepared by the City of Salisbury

I. Introduction & Background

a. Site Location

The site is located at 317-325 Lake Street, Salisbury, MD 21801 (parcel numbers 1625 and 1626 respectively) (Lat. 38.369469 Long. -75.603903) (herein referred to as “the Site”).

b. Previous Site Use(s) and Previous Cleanup or Remediation

The two contiguous parcels proposed for remediation and redevelopment currently comprise 1.87 acres in total, with approximately 300 feet of waterfront bulkhead along the Wicomico River to the east. Both properties were formerly utilized as a fuel tank farm facility with aboveground storage tanks from the late 1930s until the mid-1980s. The properties were then abandoned until 1990, when 317 Lake Street began operation as a waste oil processing facility. The facility became inactive again in 1992. Both parcels consist of paved areas and former aboveground storage tank containment pads. 325 Lake Street is improved with a 3,600-SF steel garage building. 317 Lake Street is improved with one building, two warehouses, two sheds, and a guard shack.

A spill from an above ground storage tank of approximately 12,000 gallons of fuel oil occurred in 1990. An estimated 4,000 gallons were released into the Wicomico River. USEPA, the U.S. Coast Guard, and Maryland Department of the Environment responded to the spill. MDE issued Notices of Violations in 1994 & 1996 due to the continued release of waste oil and improper closures of on-site underground storage tanks. In 1997, EPA contractors collected soil, groundwater, sediment, and soil gas samples for evaluation. Benzene, toluene, ethylbenzene, and xylenes (BTEX) and semi-volatile organic compounds (SVOCs) were detected in groundwater, and volatile organic compounds (VOCs), SVOCs, pesticides, TPH, and metals were detected in soil samples. In addition, petroleum was observed discharging from groundwater into the Wicomico River. In 2000, an oil extraction groundwater treatment system was installed by the U.S. Army Corps of Engineers (USACE) as part of an EPA initiated Removal Action. Additionally, steel bulkhead, and geotextile membrane, were installed to prevent petroleum products from entering the river along with steel dolphins to protect the improvements. The groundwater treatment system operated until 2003 when USACE decommissioned the treatment system. In 2008, the above ground storage tanks were removed by the property owner and in 2023 all standing buildings on the property were demolished down to the foundation by the City.

c. Site Assessment Findings

In November 2019 Weston Solutions, Inc. was hired by the City of Salisbury to conduct Phase I site assessment activities at 317 & 325 Lake Street, known as the Lake Street Oil Tank Farm.

Based on the results, the sites were confirmed to be contaminated with petroleum in both soil and groundwater samples. The abandoned structures on the site tested positive for asbestos containing materials and lead-based paint.

After the results of the Phase I assessment, the City of Salisbury began working closely with Maryland Department of the Environment and other environmental agencies to begin creating a plan for remediation. It was determined that funding would need to be secured for demolition of the abandoned structures, as well as the performance of Phase II testing before any additional site remediation could begin. Funding for demolition was secured through the Maryland Department of Housing and Community Development's Strategic Demolition Fund Program.

In June 2020, Weston Solutions, Inc. conducted Phase II site assessment activities to evaluate the extent of contamination remaining at the Site. Based on the results of the Phase II environmental assessment, concentrations of Total Petroleum Hydrocarbons (TPH) have been detected in the soil beneath the subject sites at concentrations above the MDE generic numeric cleanup standard for residential and non-residential soils, with TPH being the primary chemical of concern (COC). Soil and groundwater samples were collected and analyzed for priority pollutant metals, in accordance with EPA and state-approved procedures. Concentrations of several metals were detected in the soil samples. Arsenic and manganese were detected in soils at concentrations that exceed the residential and non-residential soil criteria. Hexavalent chromium and vanadium were detected at concentrations greater than the residential soil criteria. Hexavalent chromium was analyzed for in five soil samples and was detected in all the soil samples selected for hexavalent chromium analysis. One surface soil sample contained concentrations of hexavalent chromium at concentrations greater than the MDE residential cleanup standard. Soil collected from the garage floor drain contains concentrations of lead and iron above residential and non-residential cleanup standards. There were no other detected concentrations of metals that exceed the non-residential soil screening criteria. Aluminum, arsenic, beryllium, cadmium, iron, lead, manganese, nickel, vanadium, and zinc were detected in groundwater in concentrations greater than the MDE generic numeric cleanup standard for groundwater. Concentrations of TPH-GRO were detected in soil and groundwater samples greater than the MDE generic numeric cleanup standard for groundwater and residential and non-residential soils. TPH-DRO was detected in soil and groundwater samples. Soil concentrations of TPH-DRO exceed the residential and non-residential cleanup standard.

At the recommendation of MDE, The City of Salisbury hired GHD Services, Inc. to create an Environmental Management Plan for the complete scope of work required for remediation. This plan, in conjunction with the results of the Phase II environmental assessment, brought forth various methods of remediation addressed in this cleanup alternatives analysis.

d. Project Goal

The property is zoned Riverfront Redevelopment, a district aimed at replacing industrial uses with less intensive uses more suited to residential and light commercial activity. The planned reuse for the sites is, at a minimum, restoring the land to recreational green space to provide residents with the opportunity to increase their physical fitness, lower blood pressure, and

improve mental health. When ready for redevelopment, these two parcels are planned to be part of a bigger park project, known as North Prong Park. The City of Salisbury is committed to creating green space that will serve as recreational space for residents and visitors alike, with educational and environmentally responsible features to provide habitat for many native species of plants, waterfowl, and marine life.

II. Applicable Regulations and Cleanup Standards

a. Cleanup Oversight Responsibility

Although a contractor has yet to be procured, the excavation and disposal of contaminated concrete and soils will be overseen by a qualified site professional, project engineer, and the Department of Infrastructure & Development. In addition, Maryland Department of the Environment, Wicomico County Emergency Services, and the City of Salisbury Fire Department will be notified of any breach of contaminants for response action.

b. Cleanup Standards for Major Contaminants

The City of Salisbury currently anticipates that the standards set by Maryland Department of the Environment for recreational use will be used as the cleanup standards. The intended reuse of this property would set cleanup standards at Level 1: Public Recreational Areas (High Frequency Use). A high frequency public recreational area is any area that is available for recreational use by all populations at the highest potential exposure frequency (youth, child, adult, senior, etc.). Examples may include, but are not limited to, playgrounds, day care facilities, schools with day care, golf courses, and picnic areas. The frequency of visits by all populations is 250 days per year or less.

c. Laws & Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, the federal Brownfields Utilization, Investment and Local Development Act, the state Brownfields Redevelopment Reform Act, the state Chesapeake Bay Critical Area Act, as well as meeting any FEMA standards for future redevelopment. Federal, state, and local laws regarding procurement and payment of contractors to conduct the cleanup will be followed, including the Federal Davis-Bacon Act, federal Fair Labor Standards Act, and the Maryland Wage Hour Law. In addition, all appropriate permits including, but not limited to, City of Salisbury Grading Permit, Wicomico County Soil Conservation District Approval, MDE Joint Permit, MDE General Discharge Permit for Discharges for Construction Activities, and all appropriate building permits for future site reuse will be obtained prior to the work commencing.

III. Evaluation of Cleanup Alternatives

a. Cleanup Alternatives Considered

To address contamination at the Site, three different alternatives were considered, including Alternative #1: No Action, Alternative #2: Capping, and Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap.

b. Cost Estimate of Cleanup Alternatives

Effectiveness

Alternative #1: No Action is not effective in controlling or preventing the continued deterioration and contamination at the sites.

Alternative #2: Capping is an effective way to prevent future users from coming into direct contact with contaminated soils on site, if the cap is maintained. However, capping is not an effective way to control other exposures, including through stormwater run-off and contact with groundwater. In addition, a land use restriction would need to be recorded on the deed to prevent residential reuse of the property.

Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap is an effective way to eliminate risk at the sites, since contaminated surface soils will be removed and direct exposure pathways will no longer exist. Any remaining subsurface contaminants will be covered with two feet of clean fill material. Seeding of the clean fill dirt will promote vegetative growth, providing an additional buffer for run-off and groundwater filtration. As the groundwater is unsuitable for use, land use restrictions would also be recorded for this alternative.

Implementability

Alternative #1: No Action requires no additional steps be taken, making this the easiest to implement.

Alternative #2: Capping is relatively easy to implement, although ongoing monitoring and maintenance of the cap will require periodic coordination and reporting. While more difficult to implement than taking no action, Alternative #2: Capping would be easier to implement initially than Alternative #3. Over time, the additional monitoring and reporting would require both financial and human capital investments from the City of Salisbury.

Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap is moderately difficult to implement, as it will require close monitoring to ensure contaminated materials are excavated, transported, and disposed of appropriately. Dust control measures and hazardous material protocols will need to be adhered to on site. All material brought in for the installation of the soil cap will be required to be certified clean fill. Coordination between the contractors, State agencies, and various City Departments will be required. Once site work has been completed, land use restrictions will need to be recorded for the property.

Cost

There will be no costs under Alternative #1: No Action.

Alternative #2: Capping costs are estimated to be roughly \$941,780.

Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap is estimated to cost roughly \$1,650,780.

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap.

Alternative #1: No Action cannot be recommended since it does not address site risks. Further deterioration of the site will result in more environmental damage, property devaluation, and could have harmful effects on the neighboring properties and area residents.

Alternative #2: Capping without excavation is slightly less expensive than excavating soils and disposing them offsite and then installing a soil cap. However, Alternative #2: Capping would require ongoing monitoring and maintenance of the cap, and would not make the site suitable for recreational or residential reuse by MDE standards.

Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap. The City of Salisbury has already invested in the future of this property by holding ownership, conducting environmental assessments, working with State and private entities regarding a plan for remediation, securing funding for demolition, creating an environmental management plan, and obtaining design services to date. In addition, Alternative #3 considers the long-term benefits of making the property suited for recreational use. Rather than remaining an empty lot unfit for redevelopment, conversion to green space will improve the environmental health of the site, lessen negative impacts on the surrounding properties and the Wicomico River, provide habitat for wildlife, increase the market value of surrounding properties, and will serve as a recreational haven for area residents. For these reasons, Alternative #3: Excavation with Offsite Disposal & Installation of MDE Approved Soil Cap is the recommended cleanup strategy for these two parcels.