

Analysis of Brownfields Cleanup Alternatives (ABCA) – Preliminary Evaluation

Former Dinsmore Tire Site 195, 197, and 199 Don Knotts Boulevard in Morgantown, Monongalia County, WV

Introduction and Background

- a. Site Location - The Former Dinsmore Tire site is located at 195, 197, and 199 Don Knotts Boulevard in Morgantown, WV (Morgantown-1st Ward Corp., Tax Map 49, Parcel 0009)
- b. Previous Site Use - The 1.26-acre property was first developed by the Eureka Pipeline Company in the early 1900's as a pump station to move crude oil from storage tanks south of Morgantown to refineries in the east. The pump station operated until the 1940's. In 1956, the site was sold to Robert D. Dinsmore and was used as a tire shop and tire retreading facility until 1999, when Bob Dinsmore Tires, Inc. ceased operations.

The southern portion of the site, the location of 195 Don Knotts Boulevard, was operated by a mining equipment supplier from 1951 to 1957, and Morgantown Machinery and Hydraulics from 1964 to 1968. The Buy Right Service Station and Bennett Oil Company were listed at that location in 1957 and the 1970's, respectively.

- c. Site Assessment Findings - A Phase I Environmental Site Assessment (ESA) was conducted on the property in July of 2016 as part of an EPA community-wide brownfields assessment grant being conducted by the City of Morgantown. Also, as part of the brownfields assessment grant, a Phase II ESA was conducted on the property in September 2018. An updated Phase I ESA was completed in February 2019 on behalf of the Morgantown Utility Board.

Surface soils, subsurface soils, and groundwater have been impacted by contaminants. Materials within the on-site structures are also known to contain contaminants. Contaminants include volatile organic compounds (benzene) in soil, heavy metals (arsenic, chromium) in soils and (chromium) in groundwater, asbestos containing materials and lead-based paint in the structure (roof system and joints), and polycyclic aromatic hydrocarbons in soils and groundwater. Heavy metals (arsenic, cadmium, and lead) and polycyclic aromatic hydrocarbons were detected in sediment samples; however, the highest concentrations of these contaminants in sediment were found up-gradient of the site indicating an up-stream source. Site assessment was hindered by the presence of the on-site structures and inability to investigate the subsurface within the footprint of the existing structures.

- d. Project Goal (site reuse plan) - Morgantown Utility Board's water treatment plant, that supplies water for approximately 27,300 service connections in Morgantown, WV including West Virginia University, is located just south of the former Dinsmore Tire site. Morgantown Utility Board purchased the former Dinsmore Tire site to have access to the property to expand the existing water treatment plant if additional water treatment capacity was needed in the future. In the interim, the property will be used as an access point and parking for the adjacent Monongahela River Rail Trail and Cobun Creek. Accommodations such as picnic tables and information signage will be installed. The property will serve as a community recreation hub until it is needed to support critical infrastructure (clean and safe drinking water). No residential use will occur.

Applicable Regulations and Cleanup Standards

- a. Cleanup Oversight Responsibility – The site will be entered into the WVDEP Voluntary Remediation Program (VRP). Requirements for this program include the use and oversight of a WV Licensed Remediation Specialist, who will be responsible for all remediation activities throughout the cleanup program.
- b. Cleanup Standards – The WV VRP includes two levels of cleanup, either residential or commercial / industrial use. Site reuse plans for this site will utilize the residential cleanup standards due to the planned recreational reuse.
- c. Applicable Cleanup Laws and Regulations – Laws and regulations that are applicable to this cleanup include the Federal Small Business Liability Relief and Brownfields Revitalization Act, Federal Davis-Bacon Act, WV Department of Environmental Protection VRP regulations, and City of Morgantown requirements for contractors working within City limits. Federal, State, and Local laws regarding procurement of contractors to conduct the cleanup will be followed, and all applicable permits will be obtained prior to work commencing.

Evaluation of Cleanup Alternatives

Cleanup Alternatives Considered - Three potential cleanup alternatives have been evaluated for this site, including:

1. **No Action** – This alternative would simply allow the property to remain “as-is”. The current owner plans to reuse the property or may attempt to sell the property, which would require the buyer to perform removal of multiple contaminants prior to reuse. This alternative should not be considered, as to date no other entities have shown interest in purchasing the property “as-is” and “as-is” inhibits reuse of the property. Concerns about the amounts and types of contaminants known to exist on the property is the main reason for no entity pursuing the property previously. It can be expected, if the structure were to

remain “as-is”, minimal interest would be shown from a private developer in the future. The presence of multiple contaminants has greatly reduced the property value. In addition, the site would require continued safety measures to ensure no one enters the subject property, due to the known presence of multiple contaminants.

2. **Removal of All Environmental Contaminants** – This alternative includes removal of all contaminants on the property and within the buildings prior to demolition necessary to facilitate additional investigation and remediation (asbestos, lead-based paint, removal of all contaminated soils, and removal of groundwater contaminants to allowable levels using groundwater extraction and treatment methods). Under this alternative, the property would be considered safe from an environmental perspective, as all contaminants would be investigated and removed. Building demolition is necessary to complete the site investigation and to facilitate contaminant removal. Groundwater extraction for treatment would take multiple years to accomplish, resulting in the site being considered safe for re-use.
3. **Removal and/or Capping of Select Environmental Contaminants, and Risk Assessment on Remaining Contaminants for the WV VRP**– This alternative includes disposal of all recognized asbestos containing materials and lead-based paint during demolition of the on-site buildings. The alternative also includes partial removal and capping of contaminants in surface soils, and long-term monitoring of the impacted groundwater zone. All contaminants will be evaluated using regulations within the WV VRP to determine safe re-use of the site, and management of remaining contaminants via a Land Use Covenant. Deed restrictions for groundwater use and subsurface excavations will be likely components of the final Land Use Covenant. Building demolition is necessary to complete the site investigation and to facilitate contaminant removal. Groundwater extraction for treatment would take multiple years to accomplish, resulting in the site being considered safe for re-use.

Cost Estimate of Cleanup Alternatives – The effectiveness, implementability, and cost of each alternative is summarized as follows:

Effectiveness

1. **No Action** – This alternative will not be effective in controlling or preventing exposure to contaminants on the site.
2. **Removal of All Environmental Contaminants** – This alternative will be most effective in preventing exposure / contact to contaminants, as all contaminants will have been removed.

3. **Removal and/or Capping of Select Environmental Contaminants, and Risk Based Assessment on Remaining Contaminants for the WV VRP** – This alternative will be effective in preventing exposure / contact to contaminants. Entering the site into the WV VRP and achieving risk-based criteria will be effective in limiting future site use to non-residential.

Implementability

1. **No Action** – This alternative is easy to implement since no actions will be conducted.
2. **Removal of All Environmental Contaminants** – Removal of the contaminants is difficult to implement, especially due to groundwater contamination. It is anticipated that extensive amounts of materials will require off-site disposal (contaminated concrete, debris piles, etc.). Excavation of contaminated soils and materials is moderately difficult to implement. Coordination during cleanup activities (limited site access, dust suppression, site monitoring, etc.) and short-term disturbance to the local community (equipment and trucks moving through the local community) can be expected. The timeframe for cleanup of the groundwater aquifer, which may include off-site contamination, will take a minimum of 5 years to accomplish, and possibly longer, using traditional groundwater extraction and treatment methods. On-going monitoring and maintenance will be required throughout performance of these cleanup activities.
3. **Removal and/or Capping of Select Environmental Contaminants, and Risk Based Assessment on Remaining Contaminants for the VRP** – Partial removal of contaminants at the site is moderately difficult to implement. It is anticipated that appreciable amounts of materials will require off-site disposal (asbestos, contaminated concrete, debris piles associated with building demolition, some surface soils). Capping of contaminated soils is relatively easy to implement, although subsequent monitoring and maintenance of the caps may require periodic coordination and reporting. Groundwater use restrictions will prevent exposure to contaminated groundwater. Coordination during cleanup activities (limited site access, dust suppression, site monitoring, etc.) and short-term disturbance to the local community (equipment and trucks moving through the local community) are anticipated, but to a lesser extent than a complete excavation process. Off-site installation of groundwater monitor wells will be required to fully define the extent of groundwater contamination, which may promote some difficulty. On-going monitoring and maintenance will be required throughout performance of these activities.

Cost

1. **No Action** – There are no costs for remediation of contaminants. This alternative will incur long-term expenses in limiting access onto the property to ensure public safety.

Costs will be incurred into perpetuity without the property being redeveloped, estimated at a minimum of \$5,000 per year.

2. **Removal of All Environmental Contaminants** – While an exact cost cannot be fully established, preliminary estimates indicate complete removal of all contaminants, impacted soils and materials, and a minimum of 5 years of projected groundwater treatment, will cost well in excess of \$1,000,000. Depending on long-term groundwater remediation requirements, costs could potentially exceed \$2.0 million.
3. **Removal and/or Capping of Select Environmental Contaminants, and Risk Based Assessment on Remaining Contaminants for the VRP** – Costs will be the same for the removal of the contaminants in the buildings as in the previous alternative. Capping of soils will be much less costly than complete excavation with contaminated soil disposal and backfilling costs. By entering the site in the VRP, contaminants in soils and groundwater will be allowed to remain, while safe site re-use can occur. The cost for implementation of this alternative is expected to be in the range of \$480,000 to \$550,000.

Recommended Cleanup Alternative - Based on the above cleanup alternatives and associated end results, cleanup alternative number 3, “**Removal and/or Capping of Select Environmental Contaminants, and Risk Based Assessment on Remaining Contaminants for the WV VRP**” is the preferred alternative we are pursuing. Alternative #1 (No Action) cannot be recommended since it does not address site risks. Alternative #2 (Removal of All Environmental Contaminants) is too expensive for consideration, plus the multi-year timeframe for cleanup completion will hinder site reuse plans. Capping of selected areas is less expensive than excavating extensive amounts of impacted soils and off-site disposal. Since potable water is provided throughout the area, and the impacted groundwater aquifer is not used as a drinking water source in this area, allowance for contaminants to remain and attenuate in impacted groundwater will not impact the local community and/or planned future site use. In addition, performance of a Risk Based assessment to allow contaminated groundwater to naturally attenuate rather than extraction and treatment is far less expensive, and less time consuming. For these reasons, Alternative #3 (“**Removal and/or Capping of Select Environmental Contaminants, and Risk Based Assessment on Remaining Contaminants for the WV VRP**”) is the recommended alternative.