

SOIL MANAGEMENT PLAN
WHITE PARK SOUTHSIDE TRAIL PROPERTY
MORGANTOWN, MONONGALIA COUNTY, WEST VIRGINIA

June 2022

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1.0 INTRODUCTION

The West Virginia Land Stewardship Corporation (WVLS) received a United States Environmental Protection Agency (US EPA) Brownfields Assessment Grant (BF-963692-01-0) to complete a community-wide assessment, including the completion of Phase II environmental site assessments (ESAs). The White Park Southside Trail (Site or Property) assessment work described herein was completed under a combination of funding from the City of Morgantown (City) and the WVLS's Brownfields Assessment Grant.

WVLS contracted Ms. Dawn Seeburger, owner and manager of Environmental Resources and Consulting, LLC (ERC), to provide environmental consulting services. ERC contracted with Environmental Standards, Inc. (Environmental Standards) to provide field and reporting services for the White Park Voluntary Remediation Program (VRP) project.

White Park consists of a 170-acre municipal park including playing fields, an ice rink, outdoor classrooms for the adjacent middle school, and more than 17 miles of hiking and biking trails. White Park is owned by the City. White Park lies at the northern end of an approximately 700-acre area that was operated as a crude oil tank farm by Standard Oil (formerly Pennzoil Quaker State [PQS] and now Royal Dutch Shell [Shell]) from the late 1800's to the 1950's. The White Park VRP parcel includes adjoining parcels of land south of Mississippi Street and Greenbag Road that are also owned by the City. The location of the Property (Parcel A, Southside Trail) is depicted in the attached figure entitled, White Park VRP Boundaries and Parcels.

Environmental investigations and remediations have occurred at White Park between 1987 and 2019, including sampling of groundwater, soil vapor, surface soils, and subsurface soils, as well as surface water and sediment in the on-site Cobun Creek reservoir. Standard Oil (*a.k.a.*, PQS or Shell) has been identified as the responsible party for the associated historic contamination.

Based on the history of White Park and findings of previous assessments, a limited Phase II ESA investigation was recommended by Environmental Standards prior to construction of the proposed White Park Southside (WPS) trail. The term limited applies in this case because the assessment focused on the trail course, and not the entire Property. The proposed WPS trail project is detailed as Parcel A in the aforementioned figure. The WPS trail design corridor was wooded and undeveloped during the ESA.

Environmental Standards performed the Phase II ESA in two mobilizations, one in January 2022 and one in March 2022. The scope of the Phase II ESA included the collection of 65 surface soil samples, defined as 0-2 feet below ground surface (bgs), along the proposed trail corridor and four subsurface soil samples, defined as >2 feet bgs, in areas of potential borrow material below two feet. The analytical testing included metals and polycyclic aromatic hydrocarbons (PAHs), selected based upon the findings of previous environmental investigations and the known historical use of the area for petroleum fuel storage.

The 2022 Phase II ESA established the following contaminants of concern (COCs) in soils at the Site by comparing the analytical results to risk-based recreational trail use regional screening levels (RSLs):

- Arsenic in one surface soil location and one subsurface soil location.
- PAHs in three surface soil locations.

Based on the findings of the Phase II ESA, actions protective of human health and the

environment are recommended in defined areas of concern (AOCs). The locations of the AOCs are depicted in the attached figure entitled, Soil Areas of Concern.

These protective actions include:

- Limiting usage of the Property to non-residential activities.
- Engineered soil cover in AOCs which should include installing a demarcation fabric and permanent soil cover over the impacted surface soil within the trail right-of-way.
- Disturbance of soil and excavation activities within the AOCs will require management if relocated on, or off, the Site. A Health and Safety Plan (HASP) should be developed that incorporates the use of safe work practices to generally avoid prolonged direct contact with impacted media. This excavation restriction does not apply to vegetation, trees, brush, and/or humus.

The intent of this SMP is to provide guidance in the event soils within the AOCs are to be disturbed, or if off-site materials (*i.e.*, soil as clean fill) is to be brought onto the Property.

This Soil Management Plan (SMP) may or may not meet the specifications of site work requiring permits, such as the General West Virginia/National Pollution Discharge Elimination System (NPDES) Water Pollution Control Permit for Stormwater Associated with Construction Activities. Please verify requirements with the appropriate regulatory authority.

This SMP was compiled under the guidance of a West Virginia Licensed Remediation Specialist (LRS), Ms. Lydia Work, LRS license number 148.

A copy of this SMP is to be maintained by the City as a guide in the remediation of any future grading, cut, fill, excavation, drilling, or penetration of the ground at the Property

It is important to note that this SMP only incorporates Parcel A of the Property. Future investigations of the Property may dictate other requirements and at that time, the SMP will be revised.

2.0 **BACKGROUND**

2.1 Site Location and Description

The totality of White Park includes recreational ball fields, an ice rink, outdoor classrooms for the adjacent middle school, and more than 17 miles of hiking and biking trails in the City of Morgantown, Monongalia County, West Virginia. The general gradient of White Park is hilly and variable, with a moderate overall grade sloping towards the onsite Cobun Creek Reservoir and west towards the Monongahela River (see Figure 1). Portions of White Park are in a high-risk flood hazard zone.

The White Park Southside (WPS) Trail Site is located within White Park. Proposed Trail Segment 1 is located on the south side of Cobun Reservoir, and Segments 2 and 3 are located across Cobun Creek to the northeast; the total combined linear footage of both segments is estimated to be approximately 6,000 feet. The portion of the White Park Property that is impacted by the WPS project spans across portions of three contiguous parcels owned by the City (31-09-048A-0006-0000, 31-09-048A-0007-0000, and 31-09-0048-0041-0000) which total approximately 22.8 acres (Figure, White Park VRP Boundaries and Parcels).

The WPS proposed trail area is currently wooded and undeveloped, except for a cleared water line right of way along the southern boundary. The most predominant features of the proposed trail site are earthen berms historically used as secondary containment for Standard Oil's petroleum above ground storage tanks (ASTs). The density of the berm structures is expected to influence trail alignment and construction, as the interior of the circular berms are almost without exception low-lying and wet. In addition, construction of above forementioned waterline has left low quality soil of variable depth within the utility right-of-way.

2.2 Soil Management Areas of Concern

Based on the environmental investigations completed at the Site and the intended recreational use, the following warrant specific management and/or remediation:

- Recreator RSLs were exceeded in surface soils in AOCs on, or immediately adjacent to, the WPS trail. Therefore, surface soils in the AOCs require management should they be disturbed or removed from the Site.
- Soils that are confirmed to be impacted (the AOCs) yet are being left on Site will require adequate soil cover (> 1 foot) within the constructed trail right-of-way. Acceptable soil cover can be clean fill (refer to Section 5), or structural development (*i.e.*, buildings, parking pads, *etc.*).
- Soils from the AOCs cannot be used as borrow material for construction of the WPS, unless topped with adequate soil cover.

2.3 Applicable Soil Standards

The data were compared to recreational soil RSLs to determine COCs and whether remediation at the Site was warranted. The following exposure scenarios were used in the generation of the site specific recreator RSLs (utilizing the US EPA regional screening level generator tool, https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search) for soil, and are assumed to be applicable into perpetuity:

- Exposure frequency to a recreator of 114 days a year
- Exposure time to a recreator of 2 hours a day
- Hazard quotient not to exceed 1.0
- Cumulative cancer risk of one in a million, or 1×10^{-6}

2.3 Non-Soil Materials

This SMP does not apply to the disturbance, excavation, or removal of any non-soil materials that may have been abandoned or used on the Site. These materials may include concrete foundations, rock, gravel, brick, metal, and other miscellaneous debris.

2.4 Vegetation, Trees, Brush and Humus

This SMP does not apply to the disturbance, excavation, or removal of any vegetation, trees, brush, and humus.



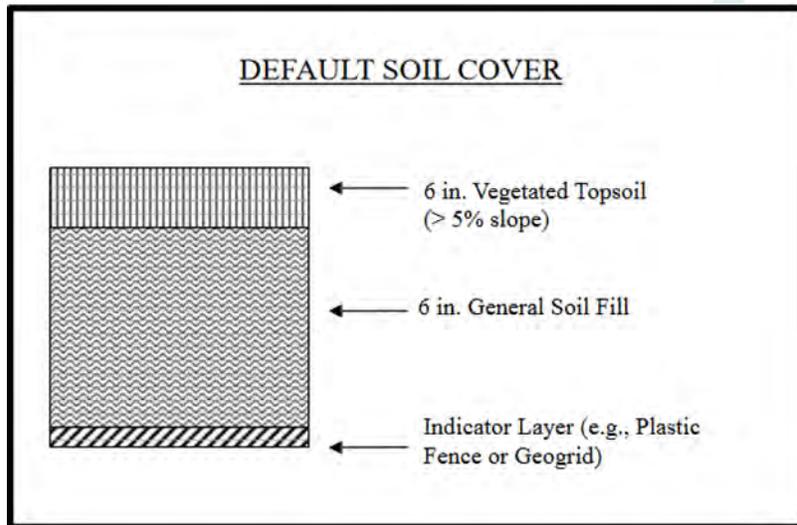
3.0 REMEDIAL STANDARDS

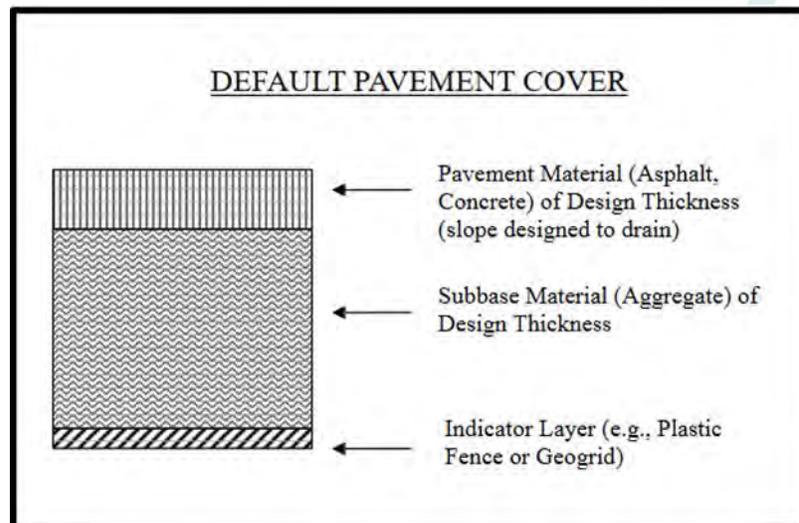
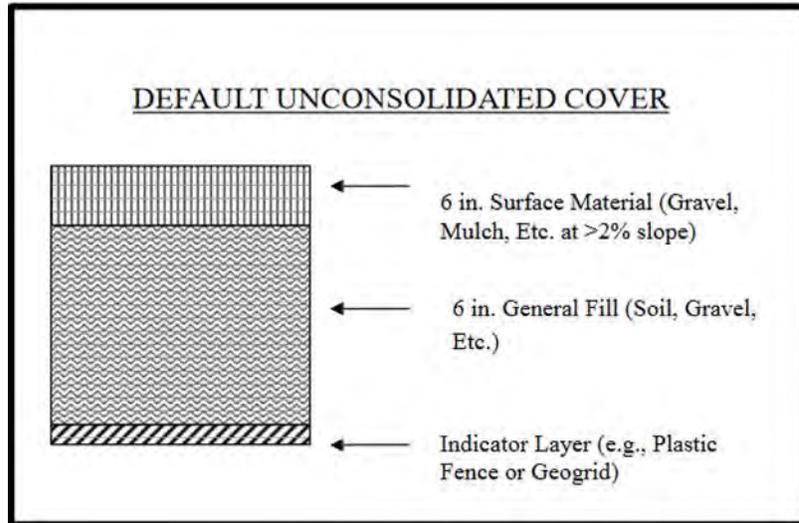
The following remedies instituted at the Site apply to the SMP.

3.1 Soil Cover

It is anticipated portions of the WPS trail will transect soil AOCs (Figures 3 and 4). The trail right-of-way within any surface soil AOC will require a soil cover as described below.

Exposure to impacted soils can be prevented by an engineered cover system placed to prevent 1) contact with the soil and 2) spreading of impacted soil due to future site construction or re-grading activities at these locations. The soil cover system will be comprised of a minimum 12-inch-thick cover consisting of compacted clean soil, aggregate, or other suitable fill material to prevent direct contact with soils. Alternatively, a minimum 3-inch layer of asphalt pavement and appropriate base stone, or 5-inch-thick concrete pavement, can be used to achieve the same protection from contact with the soil. Below are examples of default soil covers provided by the West Virginia Department of Environmental Protection (WVDEP) (*source: VRP Guidance Manual, June 2020*).





A visual demarcation of the impacted areas should be installed by laying down meshed plastic construction fencing, orange in color, on top of the areas with impacted soil. Following the completion of the visual demarcation installation, the minimum of 12-inch clean fill soil cover can be added, compacted, and seeded. Alternatively, a pavement cover can be established to eliminate exposure risk, as depicted in the diagrams above.

The soil cover construction must be either conducted by a person qualified or knowledgeable about releases and exposures to contaminants known to exist at the Site, or under the supervision of an LRS. In addition to the requirements of this SMP, the work will be required to be completed in accordance with a site-specific Health and Safety Plan (HASP) developed by an LRS (or similarly qualified individual).

The soil cover will remain in place and be maintained indefinitely, or until it is demonstrated that direct soil exposure will not pose a threat to human health or the environment, or adversely affect or interfere with the selected remedy. Any modification to the SMP should be at the direction of a West Virginia LRS.

It is recommended the cover be inspected annually, and the inspection documented. An inspection form template is included as Appendix A.

Section 4.6 of this SMP outlines the procedures to be followed if the cover system and underlying residual contamination is to be disturbed or moved.

3.2 Relocation of Soils

Soils outside the bounds of the identified AOCs may be relocated on site, that is, within the bounds of Parcel A, without restriction.

Soils within the bounds of the identified AOCs may be relocated on site, that is, within the bounds of Parcel A; however, the soil relocation must be either conducted by a person qualified or knowledgeable about releases and exposures to contaminants known to exist at the Site, or under the supervision of an LRS. The work will be required to be completed in accordance with a site-specific HASP developed by an LRS (or similarly qualified individual). Lastly, the final resting place of the impacted soils must be surveyed and the location of the relocated soils be provided to the City and the LRS.

3.3 Excavation, Drilling, or Penetration of Soils within the AOCs

The excavation, drilling, or penetration of soils (this does not apply to vegetation, trees, brush and/or humus) within the AOCs should be prohibited unless such excavation, drilling, or penetration is conducted by a person qualified or knowledgeable about releases and exposures to contaminants known to exist at the Site or is performed under the direct supervision of an LRS or similarly qualified individual. The person should be required to perform the work in accordance with a site-specific HASP developed by a qualified individual. The person will also be required to remediate the disturbed area in a manner that assures an equivalent amount of engineering control (*i.e.*, soil cover as outlined in Section 3.1) of the Site is achieved at the conclusion of the work.

Should evidence of additional contamination that is not expressly addressed in this SMP be encountered (*i.e.*, hydrocarbon odors, drums, stained or discolored soils, sheen on standing water, *etc.*) during any excavation, drilling, or penetration of the Site soils, it is recommended that operations cease while an LRS or similarly qualified individual is consulted. Characterization and additional management could be required, dependent upon contamination characteristics.

Further guidance is provided in Section 4.

3.4 Removal of Soils from the Site

The removal of soils from the Site that contain COCs is prohibited until the soil is further characterized and transported off site to an appropriate solid waste disposal facility for disposal. All excavated soils shall be stored within the Site boundaries until the determination is made, and the soils are properly labeled in accordance with applicable federal, state, and local requirements. Please refer to Section 4.4, Soil Disposal and Section 5, Soil Characterization, for guidance on soil removal.

4.0 GRADING, EXCAVATION, DRILLING, OR PENETRATION OF GROUND

During grading, cut, fill, excavation, drilling, or penetration soil activities, or within AOCs that contain impacted soils, the following procedures should be followed.

Discovery of undocumented contaminated soil or groundwater should be reported to an LRS or similarly qualified individual for additional recommendations. In the event of any change of condition observed at the Property (e.g., evidence of heavily impacted media), project personnel must report the discovery immediately to the property owner, who will then implement appropriate response measures.

4.1 Erosion and Sediment Control Measures

Appropriate soil erosion and sediment control measures will be implemented at the Site. The erosion and sediment control measures should:

- Minimize the amount of disturbed soil.
- Prevent runoff from off-site areas from flowing across disturbed areas.
- Slow down the runoff flowing across the Site.
- Remove sediment from on-site runoff before it leaves the Site.
- Meet regulatory requirements for sediment and erosion control plans (refer to the *West Virginia Department of Environmental Protection (WVDEP) Erosion and Sediment Control Best Management Practice Manual*).

Plastic meshed orange construction fencing (or a similar visual marker) will be applied on top of the remediation areas of the Site before placement of the soil cover. This plastic fencing will be applied as a demarcation that will make it visually obvious if erosion of the soil cover has occurred.

In the event erosion of the soil cover is observed at the surface of the Site, the soil cover must be repaired to its original specifications.

4.2 Surface Water Discharges

Stormwater discharge, if planned, will either be captured and treated on-site or managed under a surface water discharge NPDES permit.

Surface water discharges associated with construction activity are subject to applicable state water quality standards. This SMP does not authorize the violation of those standards. The management of surface water discharges will require the selection and implementation of appropriate best management practices (BMPs) that will result in compliance with standards for surface water discharges. Proper implementation and maintenance of these controls is critical to adequately control any adverse water quality impacts from soil disturbance activity.

4.3 Soil Relocation

Soil may be relocated and covered, as detailed in Section 3.2, to meet redevelopment objectives. Impacted soils can be utilized as fill for the deficit areas on the same Property, provided they are accurately tracked to the new location, identified, and covered.

The procedures for evaluating the environmental characteristics of the soil to be relocated are presented in Section 5.1.

4.4 Soil Disposal

If soils from areas that require a cut are deemed not suitable for on-site soil relocation as fill beneath clean cover, paved areas, or a building footprint, then the soil will be characterized and transported off-site to an appropriate solid waste disposal facility for disposal. The removal of soils from the Site is prohibited until the soil is characterized, and then can be transported off-site to an appropriate solid waste disposal facility. All excavated soils shall be stored within the Site boundaries until the determination is made and shall be properly labeled in accordance with applicable federal, state, and local requirements.

Potential disposal facilities include:

Meadowfill
1488 Dawson Drive Suite 101, Bridgeport, WV 26330
(304) 842-2784

S & S
4439 Good Hope Pike, Clarksburg, WV 26301
(304) 745-3234

Clean Earth
85 Olin Street Morgantown, WV 26501
(304)-292-0659

The soils will be characterized and profiled in accordance with the waste profiling requirements of the destined solid waste facility. Removal of excavated soils from the Site until a waste determination is completed is prohibited.

4.5 Dust Control

General construction operations (*i.e.*, soil excavation, grading, and soil relocation operations), and soil cover construction, are anticipated to be performed during site development.

To limit worker exposure to contaminants borne on dust and windblown particulates, dust control measures will be implemented, if warranted, in accordance with local regulations when general construction activities are performed. Dust control measures should be employed at the Property to achieve no visible emissions. Personnel operating mobile equipment should be instructed to drive slowly to reduce dust generation. The dust control measures also may include wetting or misting through use of a hose connected to an available water supply or a water truck stationed on-site. Workers should avoid over-spraying the area to prevent runoff, muddy work surfaces, and generating large volumes of surface water that would require collection/dewatering and potential disposal.

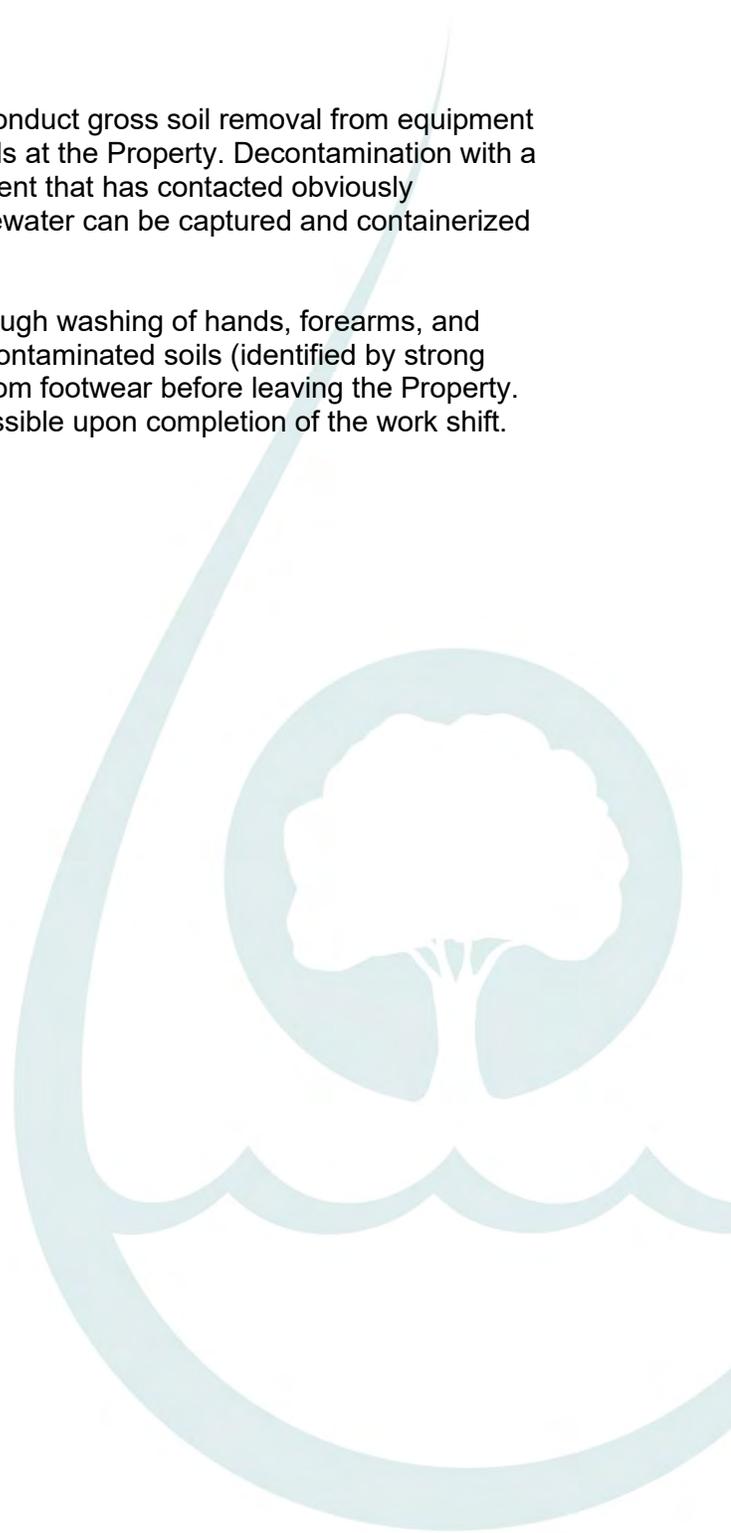
4.6 Soil Cover Repair

If the soil cover system and underlying residual contamination are disturbed after the remedial action is complete, the visual demarcation must be reinstalled, and the soil cover must be repaired to its original specifications.

4.7 Decontamination

Contractors should use brushes, shovels, *etc.* to conduct gross soil removal from equipment used to excavate or move apparently impacted soils at the Property. Decontamination with a high-pressure washer is recommended for equipment that has contacted obviously impacted soil and/or groundwater, only if the wastewater can be captured and containerized on site prior to disposal.

Personnel decontamination should consist of thorough washing of hands, forearms, and face before eating, drinking, or smoking. Grossly contaminated soils (identified by strong odors or petroleum staining) should be removed from footwear before leaving the Property. A full-body shower should be taken as soon as possible upon completion of the work shift.



5.0 SOIL CHARACTERIZATION

5.1 Soil Relocation Characterization

Any soil to be relocated from Parcel A to another area within the Site must be characterized prior to placement, and the relocation documented.

Appropriate documentation for the relocated soil should include detailed information on the location within the Site from where the soil is taken, and the results of any testing performed. It is recommended that an LRS, or an environmental professional, as defined by *ASTM E1527 - 21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* should sign any such documentation.

Analytical testing will be relied upon to document that relocated soils are unimpacted. The soil to be relocated must be laboratory analyzed based on the previously identified constituents of concern in the soil.

Potential contaminants in the soil are:

- **Metals:** Arsenic
- **PAHs:** benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene

Recommended analytical methods should be in accordance with US EPA SW-846 methods and the laboratory(ies) used must be certified by the WVDEP for the methods to be analyzed. Laboratory reporting limits, where technologically feasible, must be equal to, or less than, the RSLs. RSLs will be in accordance with the *West Virginia Voluntary Remediation and Redevelopment Act (VRRRA)*. Since future use of this Site will be recreational, **recreational RSLs in soil will be the RBCs**. RSLs can be found here: <https://www.epa.gov/risk/regional-screening-levels-rsls>. Please consult with a WV LRS, or the WVDEP, for determination of the RSLs as they may change over time.

A standard laboratory data package, including a summary of the quality assurance/quality control (QA/QC) sample results should also accompany any analytical reports. Where possible, representative samples should be collected at the borrow area while the potential soil to be relocated is still in place and analyzed prior to removal from the borrow area.

In addition to performing the appropriate laboratory analyses of the soil to be relocated, an appropriate number of samples should also be determined based upon the approximate volume or area of soil to be relocated. The following Table 1, Recommended Soil Sampling Schedule, will be used as a guide for selecting the proper number of samples needed to adequately characterize the soil to be relocated. If the borrow source is a defined land surface, use the Table 1, Individual Borrow Area schedule, being sure to collect samples at varying depths that reflect the depth of soil to be borrowed. If the borrow source is a stockpile of soil, use the Table 1, Volume of Borrow Stockpile schedule.

The soil samples should be grab samples, and not composited.

Table 1: Recommended Soil Sampling Schedule

Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every ½ acre
4 to 10 acres	Minimum of 8 samples
> 10 acres	Minimum of 8 locations with 4 samples per location (32 total samples)
Volume of Borrow Stockpile	Samples per Volume
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards + 1 sample each additional 500 cubic yards
> 5,000 cubic yards	10-12 samples for first 5,000 cubic yards + 1 sample per each additional 5,000 cubic yards

If detectable concentrations of COCs are identified within the soil to be relocated, they will be compared to the recreational RSLs. If the concentrations of the COCs are less than the RSLs, no further action is required. If the concentrations of the COCs are greater than the RSLs, an evaluation will be performed in accordance with the *West Virginia Voluntary Remediation and Redevelopment Act Guidance Manual*. Please consult an LRS and/or the WVDEP.

5.2 Off-Site Soil Fill Characterization

While not anticipated or planned for, any balance for future Site development activities that may result in a quantity of fill required to be brought on-site from off-site source(s), must be characterized. A Certification of Clean Fill form should be filled out for each source; the form is included as Appendix B.

The steps presented in this section of the SMP will be implemented to minimize the possibility of importing contaminated fill onto the Site. Because fill material may come from a variety of sources, it is important to assess whether materials to be brought onto the Site not only meets engineering specifications for a particular use, but also that it passes some level of screening to ensure that it is non-impacted.

Given that the future Site use will be for recreational purposes, the Site owner or responsible party has the option of either:

- characterizing the imported fill material or
- relying upon an affidavit and supporting documentation from the source stating that the imported material has not been contaminated by controlled hazardous substances or petroleum products at levels that meet the recreational RBCs.

5.2.1 Selection of Fill Material

In general, the source of the imported fill should be from non-industrial areas and not from sites undergoing an environmental cleanup. Non-industrial sites may include sites that were previously undeveloped or those used solely for residential or agricultural livestock grazing purposes. Soil from an agricultural crop area should be avoided due to the possibility that the material contains pesticides, herbicides, or metals at unacceptably high concentrations.

Unacceptable sources of fill materials may also include industrial and/or commercial sites where hazardous materials were used, handled, or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Commercial sites to be avoided include former gasoline stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities, and agricultural supply stores. Industrial facilities to avoid include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, or other similar facilities.

Fill from construction sites should be avoided. Viable alternatives to using soil fill from construction sites include the use of fill material obtained from a commercial supplier of fill material from soil pits in rural or suburban areas. Regardless, care should still be taken to ensure that the fill soil materials to be imported are uncontaminated.

5.2.2 Documentation and Analysis

As mentioned above, two options are available as a means for documenting the appropriateness of imported fill: characterization by the user of the fill material, or appropriate documentation from the source.

Appropriate documentation for imported fill should include detailed information on the previous use of the land from where the fill is taken, whether an ESA was performed and its findings, and/or the results of any testing performed. It is recommended that an LRS, or an environmental professional, as defined by *ASTM E1527 - 21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* should review and sign any such documentation. If such documentation is inadequate, samples of the fill material should be chemically analyzed.

If the imported fill documentation demonstrates to the satisfaction of the LRS or environmental professional that testing is not warranted, complete a Certification of Clean Fill form (Appendix B) for each source and submit to the WVDEP for review and approval before accepting the fill.

If analytical testing is relied upon to document that imported soils are unimpacted, the fill material must be laboratory analyzed for potential contaminants based on the location and history of the source area.

In addition to performing the appropriate laboratory analyses of the fill material, an appropriate number of samples should also be determined based upon the approximate volume or area of soil to be used as fill material. The previous Table 1 will be used as a guide for selecting the proper number of samples needed to adequately characterize the fill material when sampled at the borrow site. The sampling frequency may be modified upon consultation with WVDEP if all of the fill material is derived from a common borrow area.

The laboratory(ies) used must be certified by the WVDEP for the methods to be analyzed. Laboratory reporting limits, where technologically feasible, must be equal to, or less than, the recreational RSLs. Recreational RSLs will be in accordance with the VRRRA.

The analytical methods in the following table will be used to assess whether potential contaminants are present in fill source areas.

Fill Source	Target Compounds/Recommended Analyses*
Land near existing roadway	<ul style="list-style-type: none"> • Lead • PAHs
Land near mining area or rock quarry	<ul style="list-style-type: none"> • Heavy Metals • Asbestos • pH
Agricultural land	<ul style="list-style-type: none"> • Pesticides • Herbicides • Heavy Metals
Residential/acceptable commercial land	<ul style="list-style-type: none"> • Volatile Organic Compounds (VOCs) • Semivolatile Organic Compounds (SVOCs), including PAHs • Polychlorinated biphenyls (PCBs) • Heavy Metals, including lead • Asbestos

* Recommended analysis methods should be in accordance with US EPA SW-846 methods (other than asbestos, which should be using PLM or OSHA Method ID-191).

A standard laboratory data package, including a summary of the QA/QC sample results should also accompany the analytical report(s). Where possible, representative samples should be collected at the borrow area while the potential fill material is still in place and analyzed prior to removal from the borrow area.

If detectable concentrations of COCs are identified within the soil to be used as fill, they will be compared to the RBCs. If the concentrations of the COCs are less than the RBCs, no further action is required. If the concentrations of the COCs are greater than the RBCs, please consult an LRS and/or the WVDEP before accepting the soil.

5.2.3 Alternative Sampling

If it is not possible to analyze the fill material at the source area or determine that it is appropriate for use based on a historical review or Phase I ESA, the imported soils can be stockpiled either on- or off-site, and the schedules presented above on Table 1 and Table 2 be employed. The sampling frequency may be modified upon consultation with WVDEP if all of the fill material is derived from a common borrow area.

Fill material that is not characterized at the borrow area will need to be stockpiled, using appropriate erosion and sediment controls to prohibit run-off, either on- or off-site until the analyses have been completed. In addition, should contaminants with concentrations exceeding the recreational soil RBCs be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained and properly evaluated.

This alternative is not recommended due to the chance of accepting contaminated fill that becomes the responsibility of the owner.

6.0 REFERENCES

Appalachian Dirt, White Park Remediation Trail Project: Site Plan, September 19, 2020.

Environmental Standards, Inc. Phase II Environmental Site Assessment, White Park Southside Trail Property, May 31, 2022.

Triad Engineering, Inc. Phase II Environmental Site Assessment, White Park, September 16, 2019.

Triad Engineering, Inc. Site Inspection Reassessment Final Report, White Park CERCLIS Site, December 2009.

West Virginia Division of Natural Resources, Site Investigation and Response Section, Site Investigation Report, White Park, January 1991.

West Virginia Voluntary Remediation and Redevelopment Act Table 60-9 *De Minimis Standards*, December 2022.

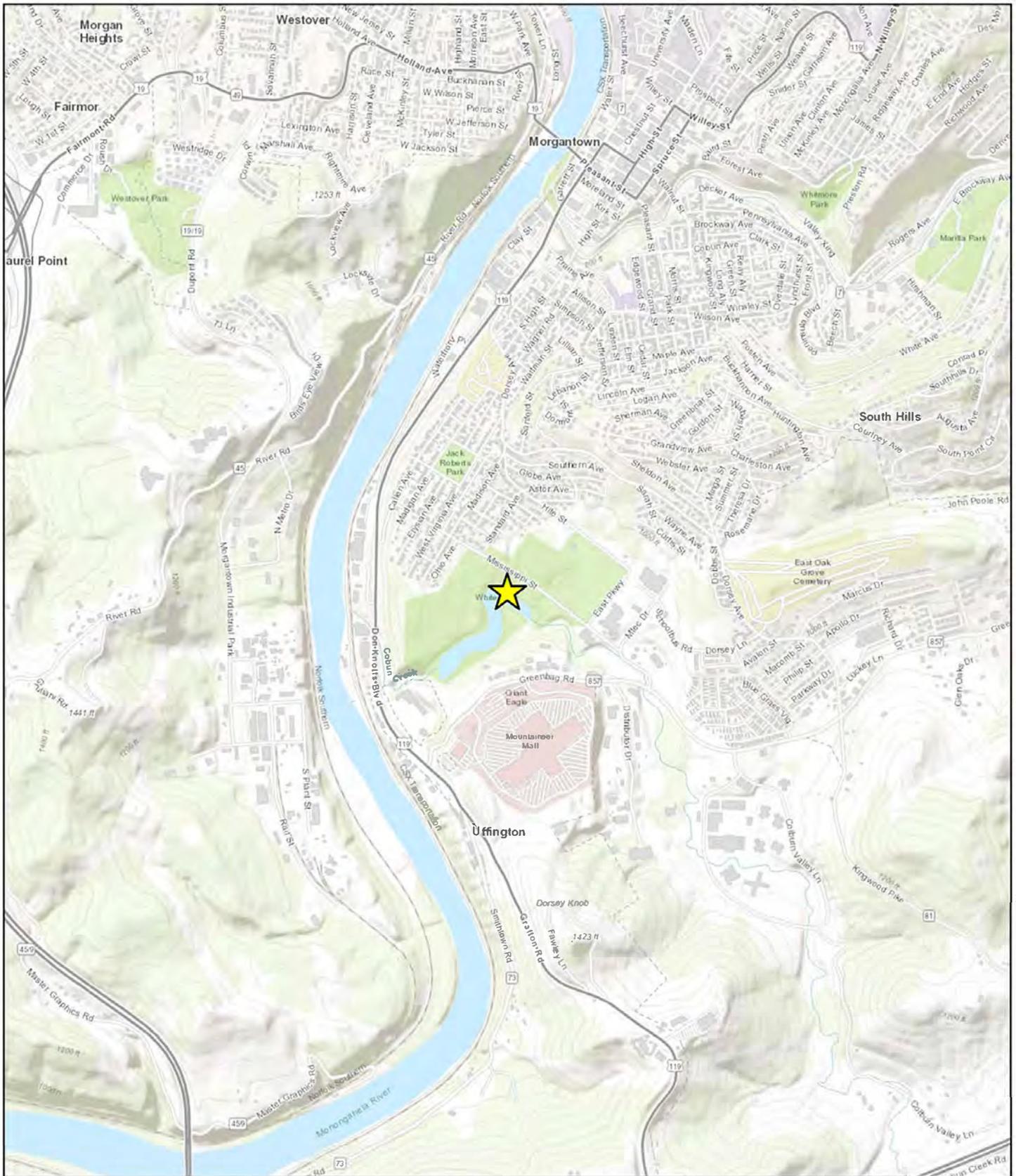
West Virginia Voluntary Remediation and Redevelopment Rule, May 2018.

West Virginia Voluntary Remediation and Redevelopment Act Guidance Manual, June 2020.



FIGURES





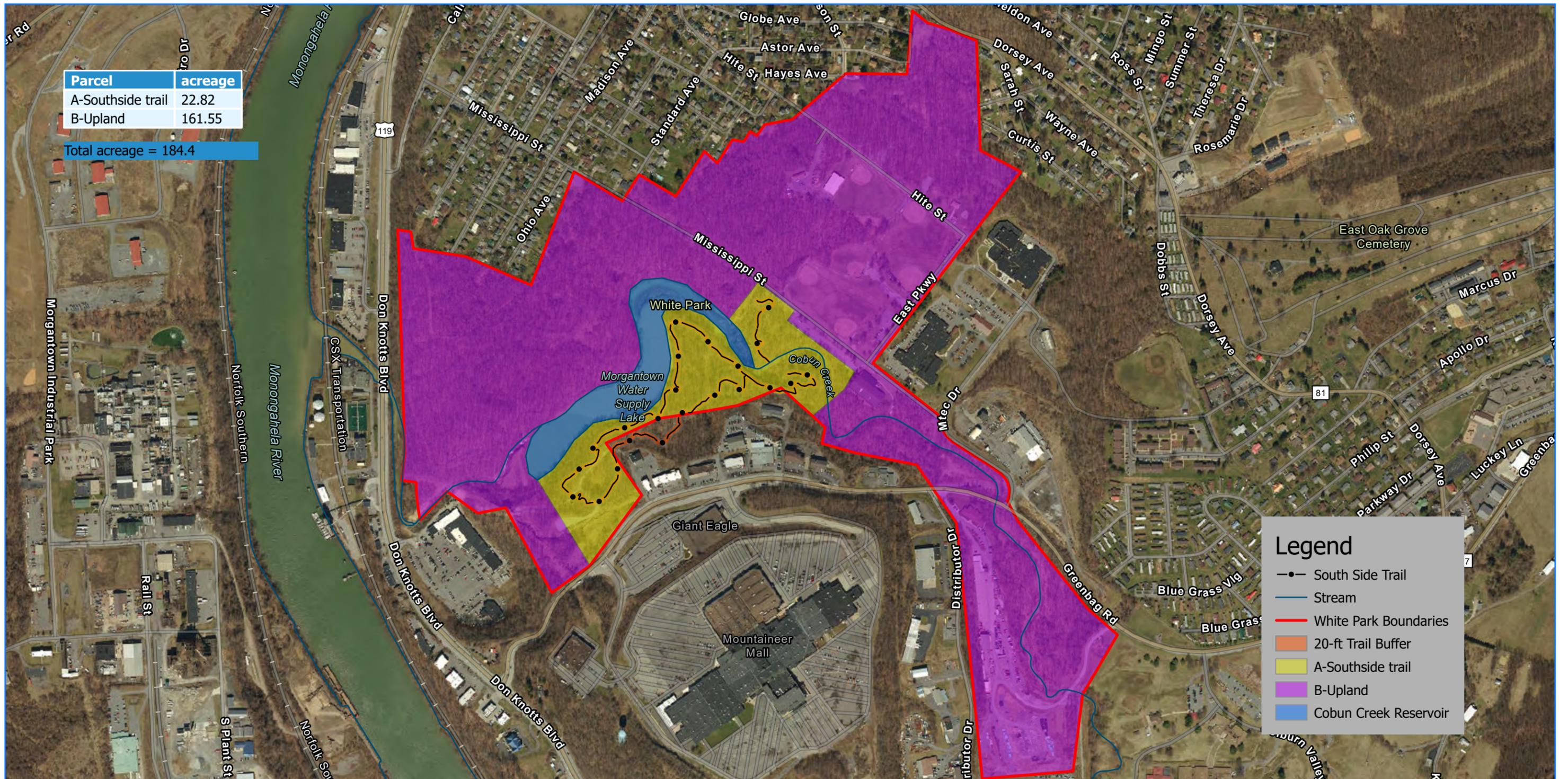
West Virginia GIS, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

 SITE LOCATION



0 0.25 0.5 1
MILES

CREATION DATE: JANUARY 10, 2022	PROJECT NO: 20219527.A	SITE TOPOGRAPHIC MAP
	DRAWN BY: BPD APPRVD BY: LM	
	CHEK'D BY: MNW REVISION: 0	WHITE PARK - MISSISSIPPI STREET MORGANTOWN, MONINGALIA COUNTY, WV

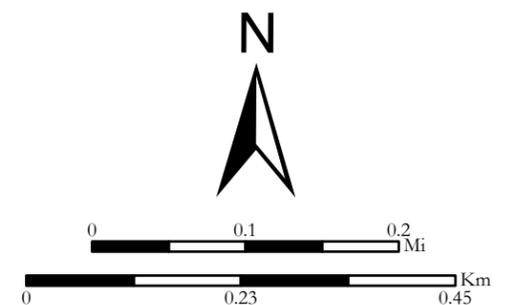


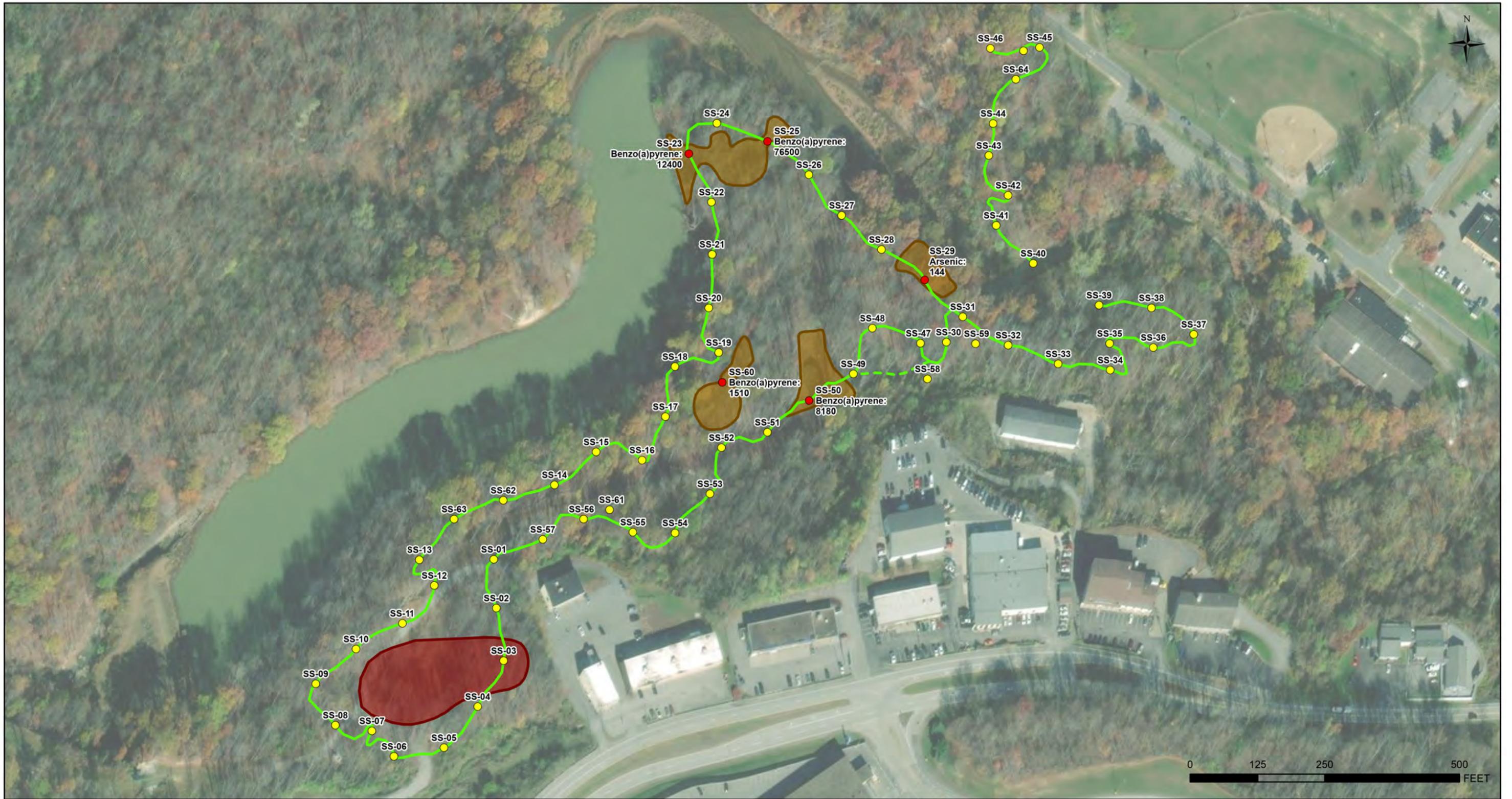
White Park VRP Boundaries and Parcels

Esri Community Maps Contributors, WVU Facilities, West Virginia GIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

06/02/2022

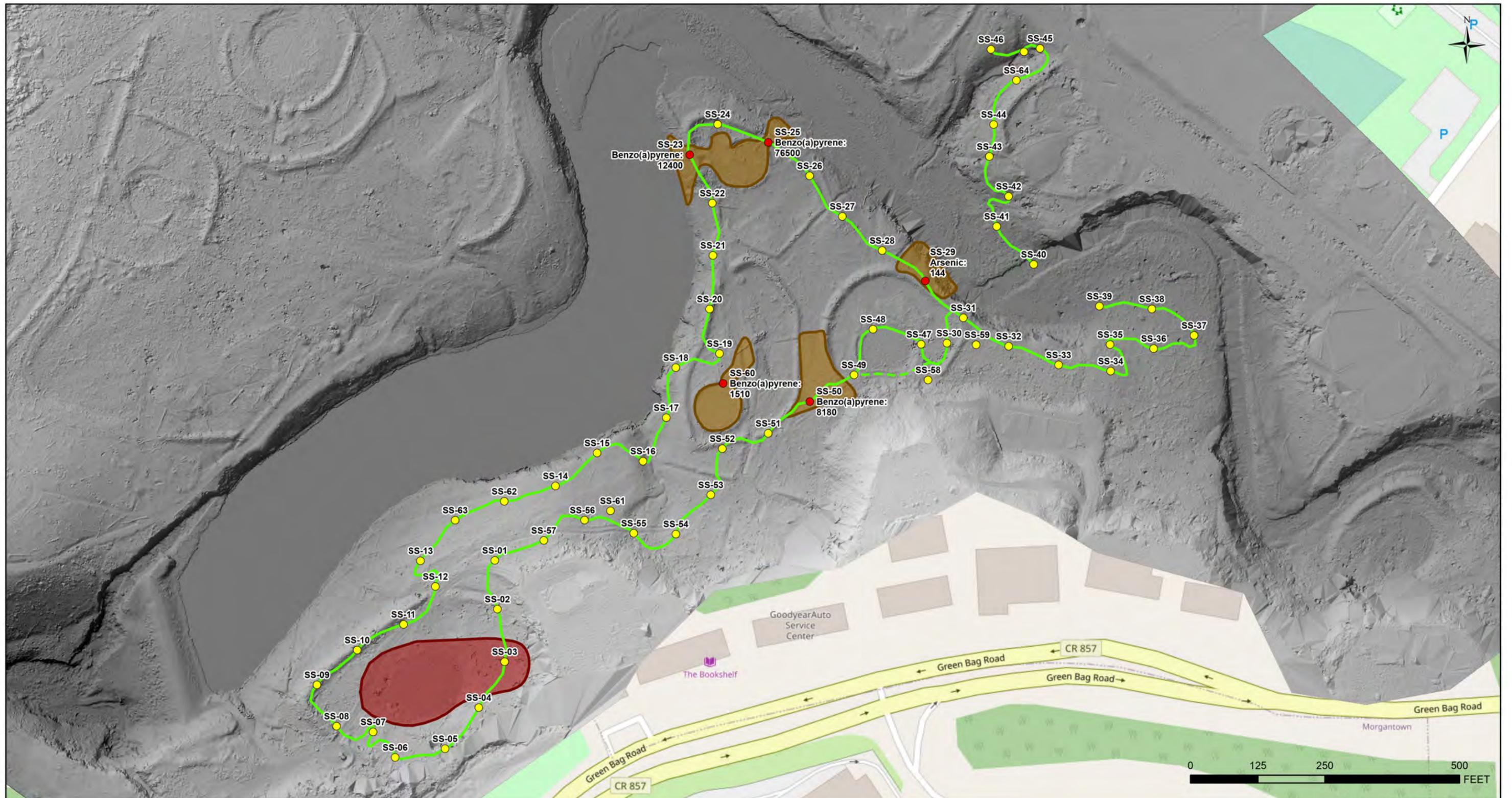
Coordinate System: State Plane 83 WV North NAD83 US Survey Feet-csref





- PROPOSED TRAIL
- - - LIKELY REROUTE DUE TO DELINEATED WETLANDS
- SURFACE SOIL SAMPLE - EXCEEDANCE OF RECREATIONAL SOIL RISK-BASED CONCENTRATION
- SURFACE SOIL SAMPLE
- SOIL AREA OF CONCERN - EXCAVATION RESTRICTIONS AND/OR SOIL COVER REQUIRED
- SOIL AREA OF CONCERN - EXCAVATION RESTRICTION

CREATION DATE: MAY 17, 2022	PROJECT NO: 20219527.A	SOIL AREAS OF CONCERN			
<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">DRAWN BY: MNW</td> <td style="width: 50%;">APPRVD BY: LMW</td> </tr> <tr> <td>CHEKD BY: LM</td> <td>REVISION: 2</td> </tr> </table>			DRAWN BY: MNW	APPRVD BY: LMW	CHEKD BY: LM
DRAWN BY: MNW	APPRVD BY: LMW				
CHEKD BY: LM	REVISION: 2				
		WHITE PARK - MISSISSIPPI STREET MORGANTOWN, MONINGALIA COUNTY, WV			



- PROPOSED TRAIL
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CREATION DATE: MAY 17, 2022	PROJECT NO: 20219527.A	SOIL AREAS OF CONCERN
ENVIRONMENTAL STANDARDS	DRAWN BY: MNW CHECKD BY: LM	
		WHITE PARK - MISSISSIPPI STREET MORGANTOWN, MONINGALIA COUNTY, WV

APPENDIX A



Engineering Controls		
<i>The following engineering controls have been installed at the property as a part of the remedy. They should be operated and maintained as necessary to protect their functional integrity. Inspect the site to determine if the engineering controls listed below are intact, functioning correctly, and being maintained as necessary.</i>		
Engineering Control	Still intact and effective?	If "no", describe:
Soil Cover	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Pavement Cover (asphalt/concrete)	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Annual Inspection – Notes, Comments, or Concerns

Person Conducting Inspection				
Contact Information				
Inspector Name	Relationship to Property			
Mailing Address	City	State	Zip Code	
Phone	Email			
Statement of Affirmation				
I affirm that the information provided in Inspection Form, to the best of my knowledge and belief, is true, complete, and accurate.				
_____ Signature			_____ Date	

Keep inspection forms on file for the lifetime of the site.

APPENDIX B



CERTIFICATION OF CLEAN FILL
WHITE PARK
CITY OF MORGANTOWN,
WEST VIRGINIA

Instructions: Sections 1 and 2 of this form must be completed by the person making the determination of clean fill at the site of origin. Section 3 must be completed by the person using the material as clean fill. Both the person determining clean fill and the user of the clean fill are responsible for maintaining copies of this completed form to be made available upon request.

Section 1: Person Determining Clean Fill

Name (Print): _____ Title: _____ Date: _____

Company Name: _____

Street Address: _____ City: _____ State: _____ Zip Code: _____

Telephone Number: _____ E-mail Address: _____

Clean Fill Material originated on the following property:

Site Name: _____

Street Address: _____ City: _____ State: _____ Zip Code: _____

Section 2: Site Characterization

Check the following that applies:

- A. IF the site of origin for the fill material has undergone or is undergoing cleanup or remediation pursuant to a local state or federal regulatory program that requires site characterization, provide the following information along with a copy of the entire site characterization and laboratory analysis for the material to be used as clean fill.**

Name of local, state, or federal agency: _____

Identification number assigned to the project: _____

Name of the local, state, or federal contact person: _____

Telephone Number: _____ E-mail Address: _____

Name of the Laboratory that conducted the analysis: _____

Laboratory Accreditation Number: _____

- B. IF the material proposed to be used as clean fill has otherwise been subject to analytical testing or other procedure identified in the definition of "environmental due diligence" contained in the Management of Fill policy, provide or attach the following:**

Copies of any records documenting the source of the material (maps, plans, Phase I ESA, etc.).

Copies of **ALL** laboratory analytical testing performed as part of due diligence, if available.

Name of the Laboratory that conducted the analysis: _____

Laboratory Accreditation Number: _____

I, the undersigned, certify that the information provided in Sections 1 and 2 of this form is true and correct to the best of my knowledge, information, and belief.

Signature: _____

Date: _____

CERTIFICATION OF CLEAN FILL
WHITE PARK
CITY OF MORGANTOWN,
WEST VIRGINIA

Section 3: Person Receiving or Placing Clean Fill

Name and address of person completing this form:

Name (Print): _____ Date: _____

Mailing Address: _____ City: _____ State: _____ Zip Code: _____

Telephone Number: _____ E-mail Address: _____

Fill material that has been determined to be clean fill will be placed on the following property solely for property improvement or construction purposes:

Property Address: _____ City: _____ State: _____ Zip Code: _____

Current Owner of Property: _____

Telephone Number: _____ E-mail Address: _____

The quantity of clean fill to be placed on the property is:

<3,000 cubic yards 3,000 cubic yards to 20,000 cubic yards >20,000 cubic yards

I, the undersigned, certify that the information provided in Sections 1 and 2 of this form is true and correct to the best of my knowledge, information, and belief.

Signature: _____

Date: _____

Prior to placement of the clean fill, the owner of the property receiving fill material shall provide a copy of this completed form and attachments to the Licensed Remediation Specialist and/or the West Virginia Department of Environmental Protection, Office of Environmental Remediation.

If a property receives fill from multiple sources, a separate Certification of Clean Fill Form is required for each source.