



Evaluation for Solar Farm Development

Morgantown Industrial Park

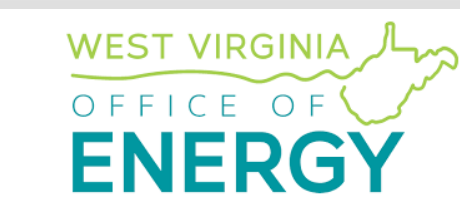
Monongalia County, WV

July 2022

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WV Office Of Energy

A Division of the West Virginia
Development Office



Prepared by:

Marshall University

Center for Environmental, Geotechnical
and Applied Sciences and

Marshall University's

WV Brownfields Assistance Center



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Introduction / Report Background

Marshall University's Center for Environmental, Geotechnical and Applied Sciences (CEGAS) and its West Virginia Brownfields Assistance Center were retained by the West Virginia Office of Energy, a division of the West Virginia Development Office to complete limited property evaluation studies on select mine land and other properties for potential large-scale solar farm use. This specific evaluation is for the Morgantown Industrial Park and includes information obtained from multiple sources regarding site-specific information and conditions, local area demographics, available electric utilities, and interaction with property owners. The purpose of this evaluation is to provide sufficient information on the subject property for potential redevelopment and/or reuse considerations by interested parties for solar farm use. CEGAS believes, to the best of its knowledge, that the information contained in the report is accurate at the time of compilation, however, no guarantees are warranted. It is ultimately the responsibility of interested parties to perform their own due diligence in fully evaluating the subject property for potential new development.

Site Name and Location

The Morgantown Industrial Park is located in the northern part of West Virginia (WV) in Monongalia County. The property is located in Morgantown, WV. Dupont Rd runs through the length of the industrial park. It can be accessed from US-19/Fairmont Rd. A site location map is provided as an attachment.

The entire industrial park is approximately 750 acres. The total area of the tracts associated with this report is approximately 238 acres. These seven tracts are listed on the West Virginia Property Viewer (mapwv.gov/parcel) as follows:

District: 07	Map: 014B	Parcel: 0001	Parcel Suffix: 0001	Book: 1693	Page: 104
District: 07	Map: 014B	Parcel: 0001	Parcel Suffix: 0002	Book: 1993	Page: 104
District: 07	Map: 014B	Parcel: 0002	Parcel Suffix: 0001	Book: 1430	Page: 343
District: 07	Map: 014B	Parcel: 0001	Parcel Suffix: 0000	Book: 1434	Page: 385
District: 07	Map: 013G	Parcel: 0043	Parcel Suffix: 0000	Book: 1434	Page: 385

District: 07 Map: 014B Parcel: 0009 Parcel Suffix: 0000 Book: 1446 Page: 823

District: 07 Map: 014B Parcel: 0002 Parcel Suffix: 0000 Book: 1434 Page: 385

Current Property Owners

The tracts are owned by Enrout Properties, LLC and KBG Partners, LLC. The contact for this property in its entirety is:

Glenn T. Adrian

Enrout Properties, LLC

466 Christy Street, Suite 2

Morgantown, WV 26505

glenn@adrianenterprisesllc.com

Tel: 304.598.5713

Site History and Current Status

The property has been utilized as an industrial park since the 1980's. Beginning in the early 1940's, parts of the site were utilized by E.I. DuPont de Nemours and Company, under contract with the U.S. Government, for a coke plant chemical production. The property was held by the U.S. government until the early 1960's, with multiple private companies producing various chemicals and materials including hexamine, ammonia, methyl alcohol, formaldehyde, ethylene diamine, and coke. The property was sold in 1962 to Morgantown Ordnance Works, Inc., with multiple property transactions thereafter to other companies for various chemical manufacturing operations. In the early 1980's, private individuals bought the property and formed the Morgantown Industrial Park, Inc. The majority of the property is currently owned by Enrout Properties LLC. KBG Partners, LLC owns one of the tracts. The tract contains the former Ordnance Works Disposal area.

The Morgantown Industrial Park currently includes multiple commercial, industrial and business tenants. Information on the park can be found on their website (mipwv.com).

Site photos are provided as an attachment. Aerial videos of each location, collected in March of 2022, can be viewed using the following web link:



Site Video:

<https://youtube.com/playlist?list=PLO4Yig1CAOAnFI0G9uiFJffpnKQ4Q0RHZ>

Local Area Summary

Monongalia County is located in northern West Virginia. The population of Monongalia County was 106,387 in the 2021 census estimate. The local area associated with this property is within a primarily residential area in Morgantown, WV. Skyview Elementary and Westwood Middle School are located north of the location.

Electric Utility Summary

Electric service is provided by Mon Power, a subsidiary of FirstEnergy Corp. Three-phase power is available in the vicinity of the properties. Two substations are located within the industrial park. A transmission line crosses the area being evaluated in this report. A map depicting substations and electric transmission lines in the vicinity of area is provided as an attachment.

Potential Solar Farm Use

The property has been evaluated using DEMs derived from FEMA-purchased QL2 LiDAR collected between 2018 and 2020. Properties were evaluated using 10% and 15% maximum slope factors to determine available land potentially suitable for solar farm development. Using ESRI's ArcGIS software, slope analysis was calculated from DEM referenced data. A map depicting slope characteristics is provided as an attachment. A summary of the slope analysis is provided in the following table:

Total Acreage	10% or less slope (acreage)	15% or less slope (acreage)
~238	~133	~181

Additional areas within the existing industrial park may be considered for small-scale solar development. It should be noted that the former Ordnance Works Disposal area, located on the southeastern side of the property evaluated as part of this study, has

some future site use limitations. This area is identified as Operable Unit 1 (OU-1) and included a former landfill and lagoon area. The approximately 6-acre area had environmental cleanup activities conducted, including capping of parts of the area in 2003. The capped area now has an Environmental Covenant in-place approved by both the Environmental Protection Agency (EPA) and the West Virginia Department of Environmental Protection (WVDEP). This covenant limits property usage, generally including only commercial and industrial use, prohibits use of groundwater, prohibits excavation deeper than 2 feet below grade, and prohibits vehicular traffic. Periodic inspections and monitoring are performed to ensure capped areas remain in good condition. Additional details on OU-1 are available on the EPA's website (<https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0302884>).

In April of 2022, WVDEP and EPA representatives overseeing periodic inspections and monitoring of OU-1 were contacted about the potential use of the OU-1 area for future solar farm use. Both agency representatives indicated using the area for future solar farm installations would be feasible, however, surface alterations for solar panel placement (trenching for underground utilities, foundation design / construction, etc.) would be limited and require input and approval from both agencies.

Property Availability

The Morgantown Industrial Park is working to bring additional tenants to its facility and is interested in locating solar power generation on the property to augment existing power and provide current and potential new tenants opportunity to utilize renewable energy as part of their energy use. The owners are interested in long-term leasing of selected property for solar farm installations, with power generated primarily for Park tenants. Rooftop solar power generation systems associated with new business or industry are also of potential interest. Terms for lease rates are negotiable, dependent on multiple factors including amount of property utilized, length of lease, and packaged deal options.

The Nature Conservancy's (TNC) Resilient Land Mapping Tool Report

As requested by the West Virginia Office of Energy, CEGAS utilized The Nature Conservancy's Resilient Land Mapping Tool for the property for site resiliency evaluations. TNC's Nature and Economy Program Director, Eriks Brolis, provided the following description of TNC's Resilient Land Mapping Tool.

The Nature Conservancy is working across the country to help private and public partners deliver clean, wildlife-friendly renewable power to customers faster and cheaper with the least potential conflict for people, water, and wildlife. In conjunction, the Nature Conservancy is identifying and mapping a representative, connected network of climate resilient sites which if conserved, could help sustain biodiversity into the future as it moves and changes to adapt to a changing climate. The network also protects the source water, carbon stocks, oxygen, and recreation space that people depend on.

TNC's Resilient and Connected Network (RCN) is a proposed conservation network of representative climate-resilient sites designed to sustain biodiversity and ecological functions into the future under a changing climate. The network was identified and mapped over a 10-year period by Nature Conservancy scientists using public data available at the state and national scale, and an inclusive process that involved over 250 scientists from agencies, academia and NGOs across the US. The Resilient and Connected Map quantifies and integrates three nation-wide assessments:

Climate Resilient Sites: ecologically representative sites with a diversity of connected microclimates and low human modification.

Connectivity and Climate Flow: Linkages that allow species to move across sites and climate gradients.

Recognized Biodiversity Value: Places with intact habitats, rare species, or exemplary communities.

Resilience Score: The map allows users to calculate a site specific “Resilience Score”. A site’s Resilience Score estimates its capacity to maintain species diversity and ecological function as the climate changes. It was determined by evaluating and quantifying physical characteristics that foster resilience, particularly the site’s landscape diversity and local connectedness. The score is calculated within ecoregions based on all cells of the same geophysical setting and is described on a relative basis as above or below the average. Generally, the higher the score the more important the land is for conservation, the lower the score the less concern for development.

To learn more, please visit:

<https://www.conservationgateway.org/ConservationPractices/ClimateChange/Pages/Climate-Resilience.aspx>

The Nature Conservancy’s (TNC) Resilient Land Mapping Tool results for the Marion County Landfill and AmBit property are shown below.

Resilient Land Summary

Total land area: 238.6 acres (236.4 land, 2.2 open water) in the Northeast study area(s) in the Western Allegheny Plateau ecoregion(s).

Resilient and Connected Network Results

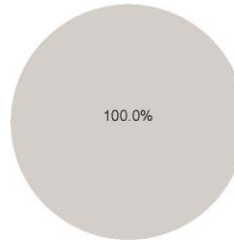
Note: These results are based on the **nationally-consistent** ecoregional data. They are derived from the detailed representations of the [Resilient and Connected Networks](#) which can be visualized under the Resilient & Connected Network Components section at right.

Resilience, Flow and Recognized Biodiversity: 0 ac.

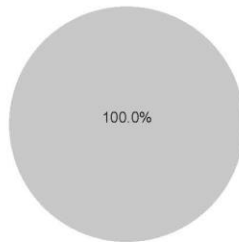
Resilience and Flow: 0 ac.

Resilience and Recognized Biodiversity: 0 ac.

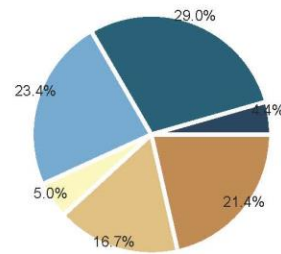
[Outside Prioritized Network](#): 238.6 ac.



Biodiversity



Connectivity and Climate Flow (Continuous)



Average Terrestrial Resilience with Polygon

(all scores relative to ecoregion)

[Resilience](#)
Slightly Below Average (-0.92 SD)



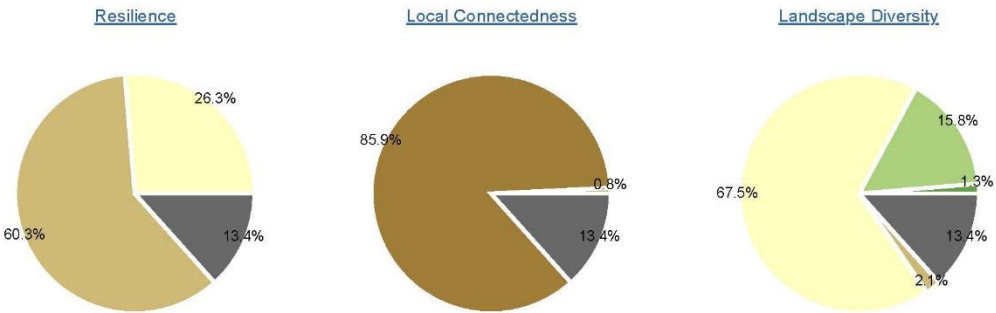
[Local Connectedness](#)
Below Average (-1.48 SD)



[Landscape Diversity](#)
Average (-0.36 SD)



Terrestrial Resilience Categories



Geophysical Setting Results

The mean elevation in the polygon is 323.09 m (1060.01 ft) and the three most common geophysical settings are:

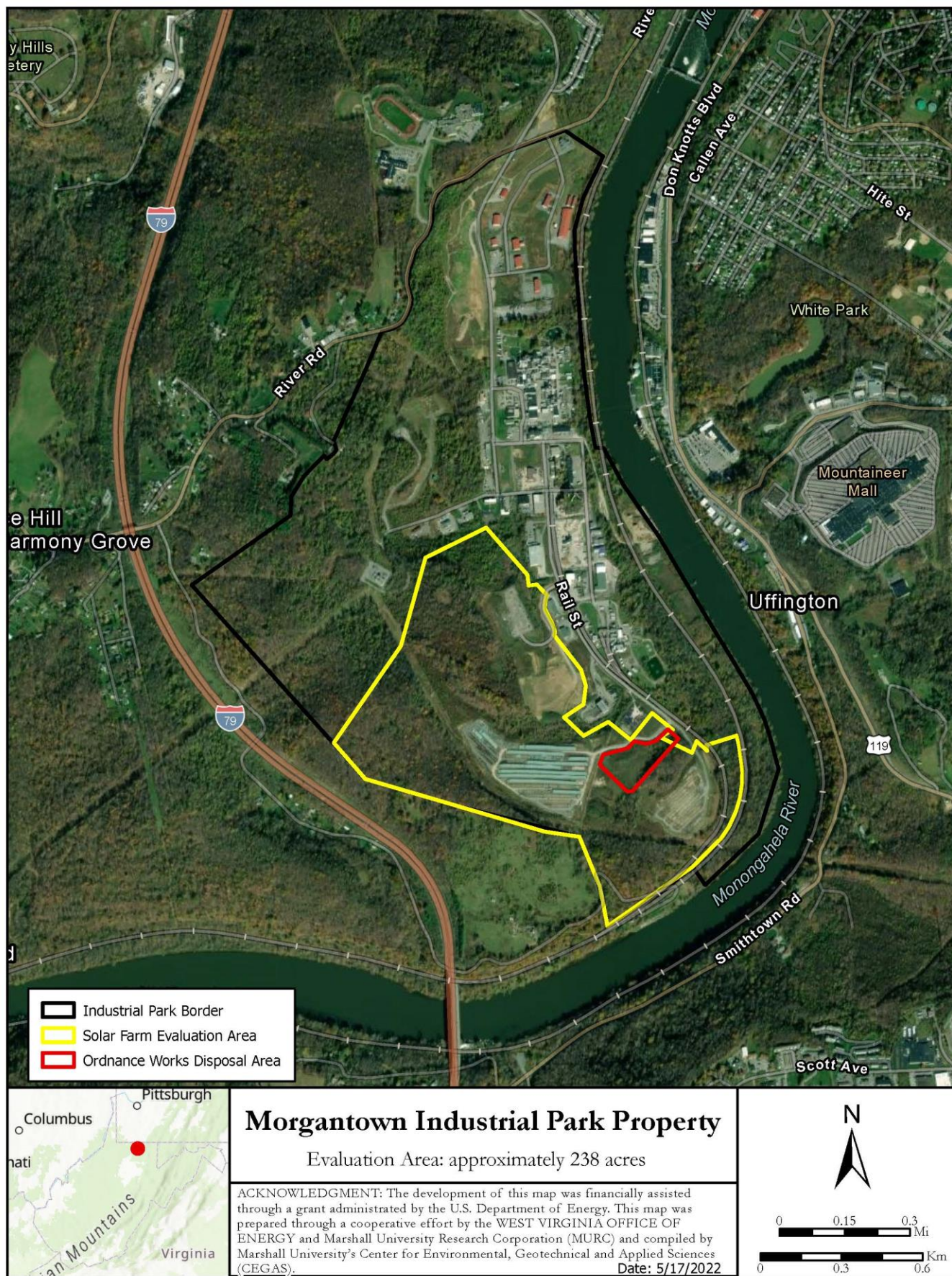
Low Elevation Moderately Calcareous : 234 acres

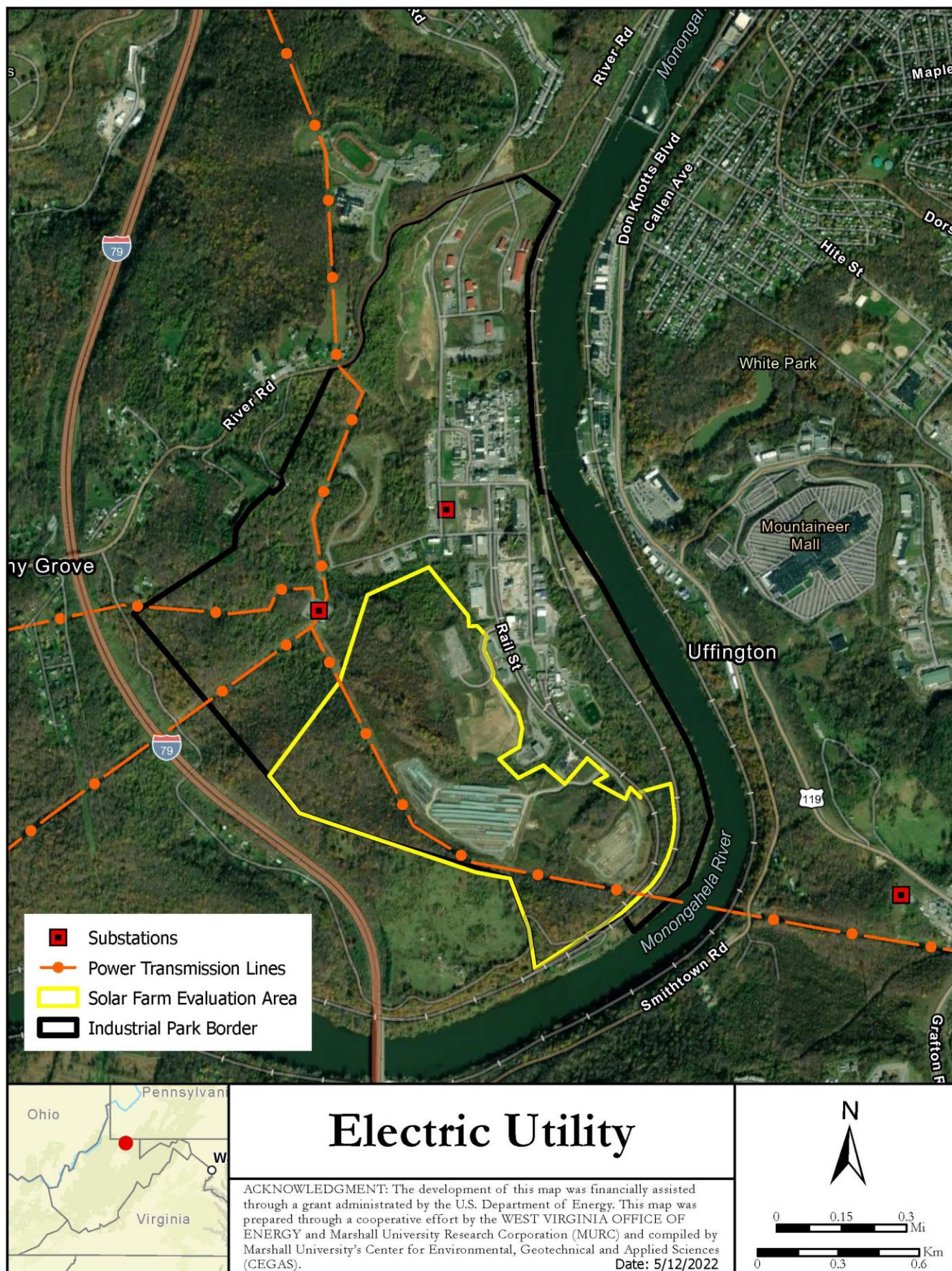
Low Elevation Silt/Clay : 2 acres

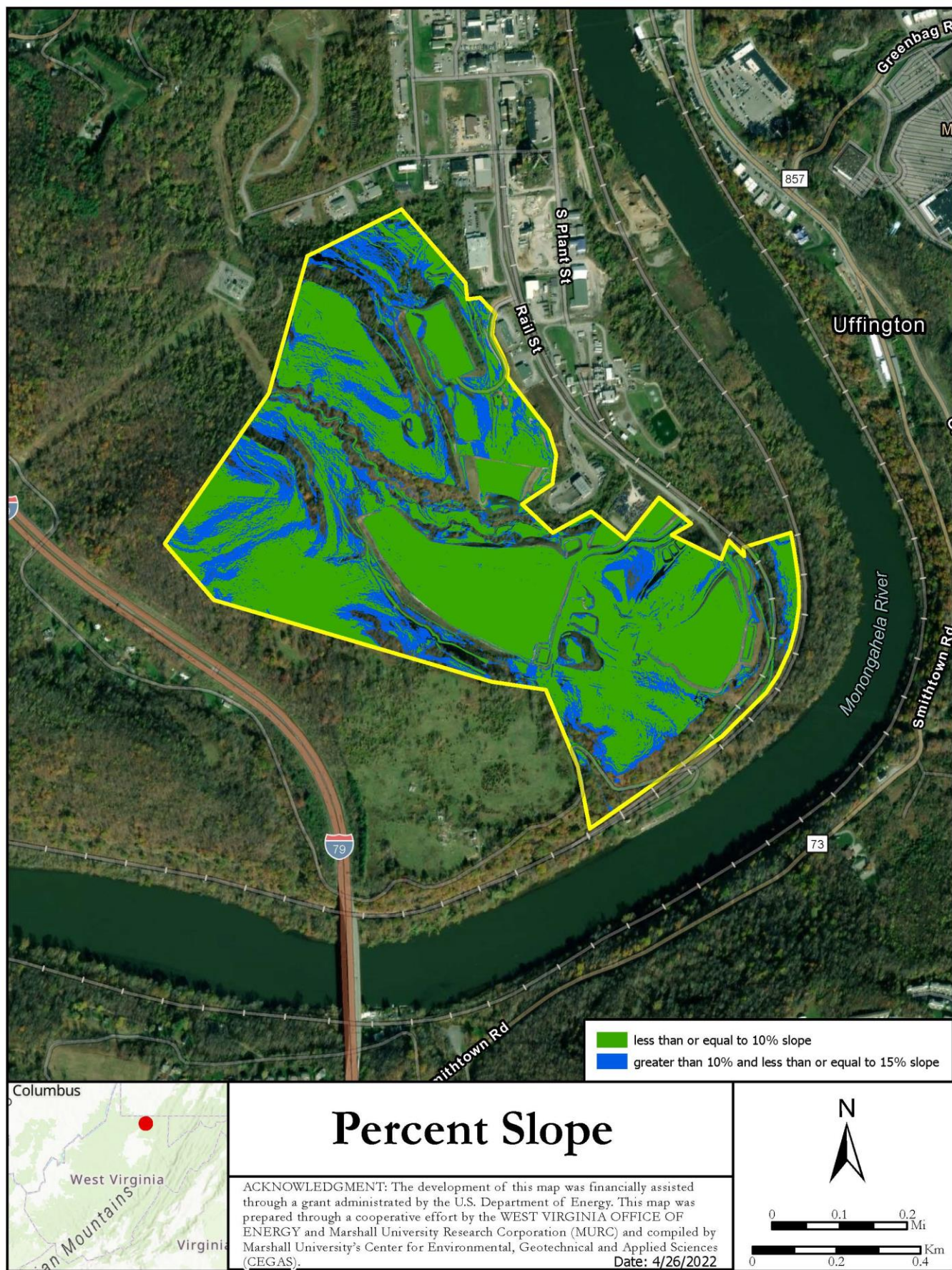
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Attachments

Maps







Photos







