



*Mine Land Property Evaluation
for Solar Farm Development*

WVEDA Rock Creek Property

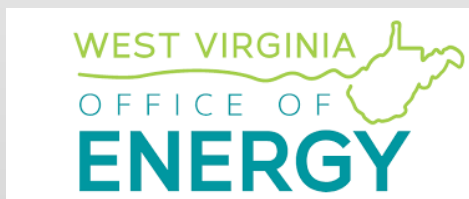
Julian, Boone County, WV

June 2021

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WV Office Of Energy

A Division of the West Virginia
Development Office



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Prepared by:

Marshall University

Center for Environmental, Geotechnical
and Applied Sciences and

Marshall University's
WV Brownfields Assistance Center



ACKNOWLEDGMENT: The development of this report was financially assisted through a grant administered by the U.S. Department of Energy. This report was prepared through a cooperative effort by the WEST VIRGINIA OFFICE OF ENERGY and Marshall University Research Corporation (MURC) and compiled by Marshall University's Center for Environmental, Geotechnical and Applied Sciences (CEGAS).

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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 properties for potential large-scale solar farm use. This specific evaluation is for the former Hobet 21 surface mine, now known as Rock Creek, 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

Rock Creek is located in the central southern part of West Virginia (WV) in Boone and Lincoln County near the unincorporated town of Julian and the incorporated town of Danville. The property is located approximately 25 miles southwest of Charleston, WV. The property can be accessed directly from Charleston via U.S. Route 119 / Corridor G and locally by County Rt. 10 / Mud River Road. Private roads formerly used for surface mine operations transect the property. A site location map is provided as an attachment.

The entire property is comprised of approximately 7,100 acres, and is listed on the West Virginia Property Viewer (mapwv.gov/parcel) on five tracts:

District: 5 (Scott)	Map: 0022	Parcel: 0003	Book: 309	Page: 625
District: 5 (Scott)	Map: 0021	Parcel: 0001	Book: 309	Page: 704
District: 5 (Scott)	Map: 0015	Parcel: 0001	Book: 307	Page: 225

District: 8 (Washington) Map: 0001 Parcel: 0001 Book: 307 Page: 225

District: 5 (Jefferson) Map: 0018 Parcel: 0018 Book: 392 Page: 677

Current Property Owner

The property is owned by the West Virginia Economic Development Authority (WVEDA). WVEDA offices are located at Greenway Building, Northgate Business Park, 180 Association Drive, Charleston, WV 25311-1217. The WVEDA contacts for this property are:

Steve Webb
Director Financial Services
681/313-2008
Steven.J.Webb@wv.gov

Joe Brouse
Senior Economic Development Rep.
304/951-3525
Joseph.D.Brouse@wv.gov

Site History and Current Status

The property has been utilized for underground and surface coal extraction for multiple decades, beginning in the early 1970s. The mining complex was historically known as Hobet 21 Mine, one of the largest surface mine operations in WV and throughout Appalachia. Operations included the use of a multi-mile surface beltline to transfer coal from the mine face to the preparation facility for washing and loading. Hobet 21 Mine was known for utilizing one of the largest drag-line operations in the world, reportedly producing up to 1.8 million tons of coal per year for many years. Hobet 21 Mine helped Boone County to be ranked as one of the highest producing coal counties in WV.

Currently, the property has no coal extraction operations occurring. Some areas have on-going mining reclamation activities being performed by ERP Environmental Fund, Inc. Several sections of the site have been completely reclaimed. Only areas of the property where mining reclamation activities have been completed are included in this evaluation. Future evaluations on sections of the property with current reclamation activities may be conducted after reclamation completion.

Two general locations are included in this evaluation, both located in Boone County on Tax Parcel District 5, Map 0022, Parcel 0003. The locations are identified as: Area 1 and Area 2. Area 1 includes ~915 acres; Area 2 includes ~560 acres. Area 1 is located on three parcels: Tax Parcel District 8, Map 0001, Parcel 0001; Tax Parcel District 5, Map 0015, Parcel 0001; and Tax Parcel District 5, Map 0021, Parcel 0001. Area 2 is on Tax Parcel District 5, Map 0022, Parcel 0003. Both Area 1 and Area 2 are outside of any floodplains. Site maps and aerial photos of each location are included as attachments. (Note - property boundaries indicated on each site map are based on information obtained from the WV Map Viewer and may or may not be completely accurate. For more accurate data, a field survey based on actual property deeds should be conducted). Aerial videos of each location, collected in April of 2021, can be viewed using the following web links:

Area 1 - <https://youtu.be/Pi5QrCNKdGI>

Area 2 – <https://youtu.be/7YLKSiPVqoo>

As seen on the aerial photos and videos, both areas have post-mine land scrubby growth, including small trees, bushes, fields and overgrown brushy areas throughout. Mining permits and associated reclamation for both areas of Rock Creek evaluated for potential solar farm development are in various stages of completion. No additional reclamation activities are anticipated within either area. Due to mining permits still being open in both areas, consultation with the WV Department of Environmental Protection will be required as part of site redevelopment efforts.

Active natural gas wells are located throughout both areas and are not owned by the WVEDA. Future development of both areas will need to include access to gas wells.

Local Area Summary

Boone County is located within the Charleston, WV Metropolitan Statistical Area, the largest metropolitan area entirely within West Virginia. This area has an estimated total population of 257,074. The local area associated with this property is within a primarily rural setting. Boone County has a population of only 21,457 in an area of 503 square

miles (<43 people per square mile). The local Town of Danville has a population of 870 (population data from U.S. Census Bureau, 2019 estimates). No residences are located within the immediate vicinity of the property.

Boone County's history is deeply steeped in bituminous coal extraction. By the 1950s, Boone County was a top producing coal county in WV. From the 1980s through the early 2000s, Boone County was the top producing coal county in the eastern U.S. From ~2009 to 2015, coal production in Boone County declined by ~80% (ARC Study "Overview of Coal Economy in Appalachia", January 2018)).

Electric Utility Summary

Electric service is provided by Appalachian Power Company, a unit of American Electric Power Company, Inc. Three-phase power is available on the property. The Beth Metering Station is located to the east of the area, within ~2 miles of Area 1 and ~1/2 mile of Area 2. 465 KV electric transmission lines are located between the two areas, and 115-138 KV electric lines are located generally east of both areas. A map depicting electric power lines in the vicinity of both areas is provided as an attachment. Additional power lines previously owned and used by the coal company are present on or near both areas, used historically for coal removal and related operations.

Potential Solar Farm Use

Each area has been evaluated using best available topographic information, including elevation Light Detection and Ranging (LIDAR) data collected in 2010 by the West Virginia Division of Environmental Protection (WVDEP). Since 2010, minimal topographic changes have occurred in either area evaluated. Both areas were evaluated using 10% and 15% maximum slope factors to determine available land potentially suitable for solar farm development. Using ESRI's ArcMap geographic information system software, slope analysis was calculated from LIDAR referenced data. Maps of both areas depicting slope characteristics are provided as attachments. A summary of each area is provided on the following table:

Location	Total Acreage	10% Slope Acreage	15% Slope Acreage
Area 1	~915	~400	~500
Area 2	~560	~150	~200

Property Availability

The WVEDA is interested in long-term (25 year plus) lease agreements for solar farm use on suitable property in both areas. Terms for lease rates are negotiable, dependent on multiple factors including amount of property utilized and length of lease.

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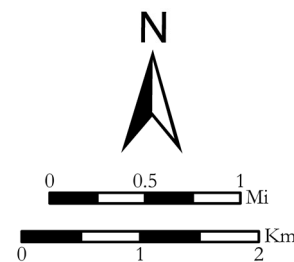
Attachments

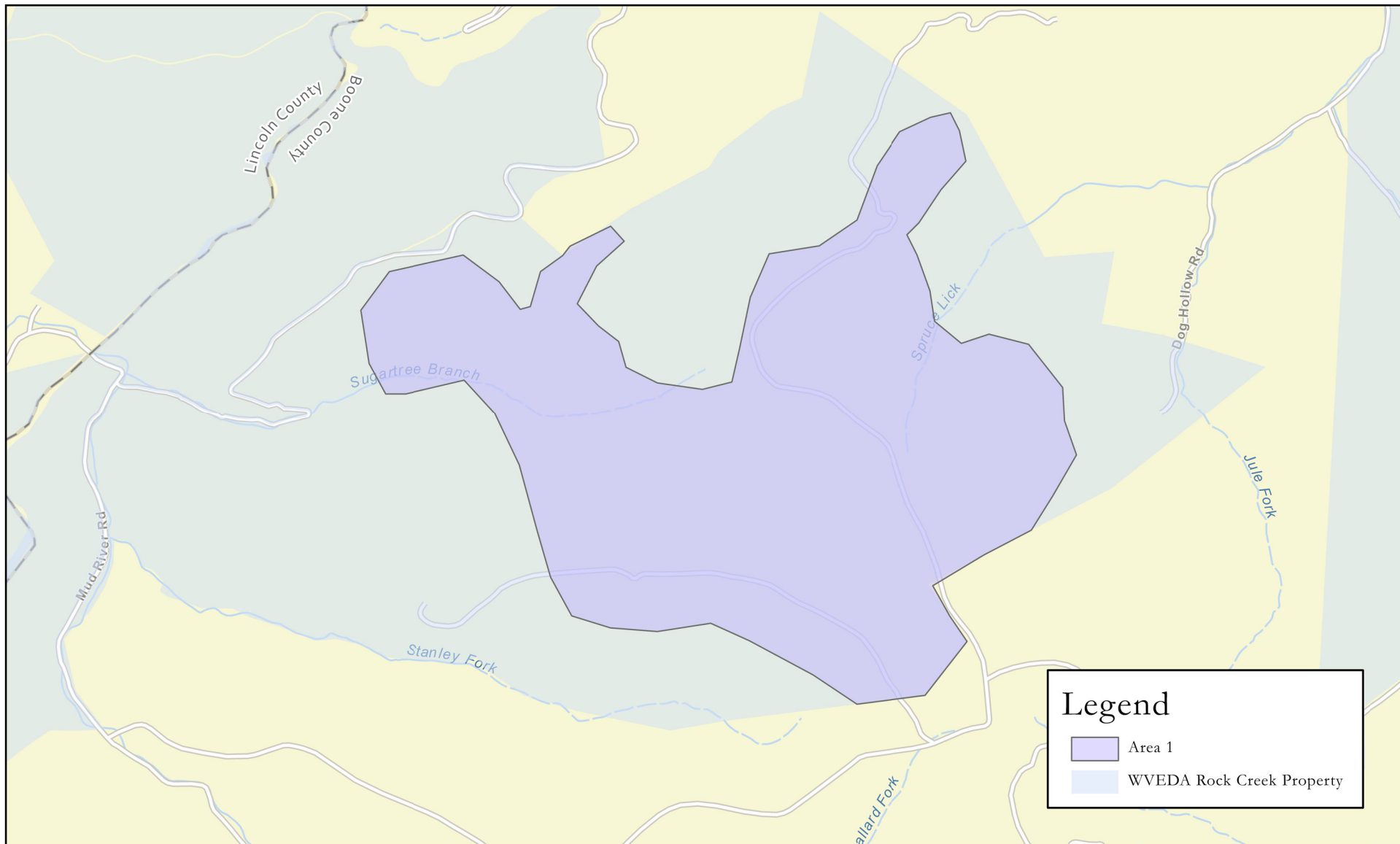


WVEDA Rock Creek Property

(Approximately 7,100 acres)

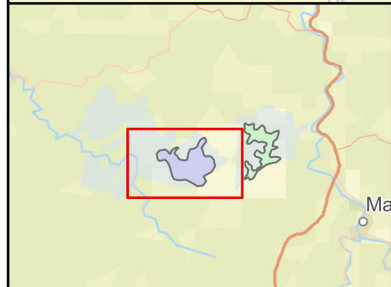
ACKNOWLEDGMENT: The development of this map was financially assisted through a grant administered by the U.S. Department of Energy. This map was prepared through a cooperative effort by the WEST VIRGINIA OFFICE OF ENERGY and Marshall University Research Corporation (MURC) and compiled by Marshall University's Center for Environmental, Geotechnical and Applied Sciences (CEGAS).
Date: 6/11/2021





Legend

- Area 1
- WVEDA Rock Creek Property



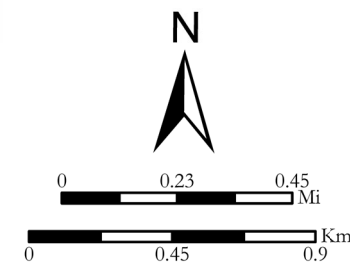
Area 1

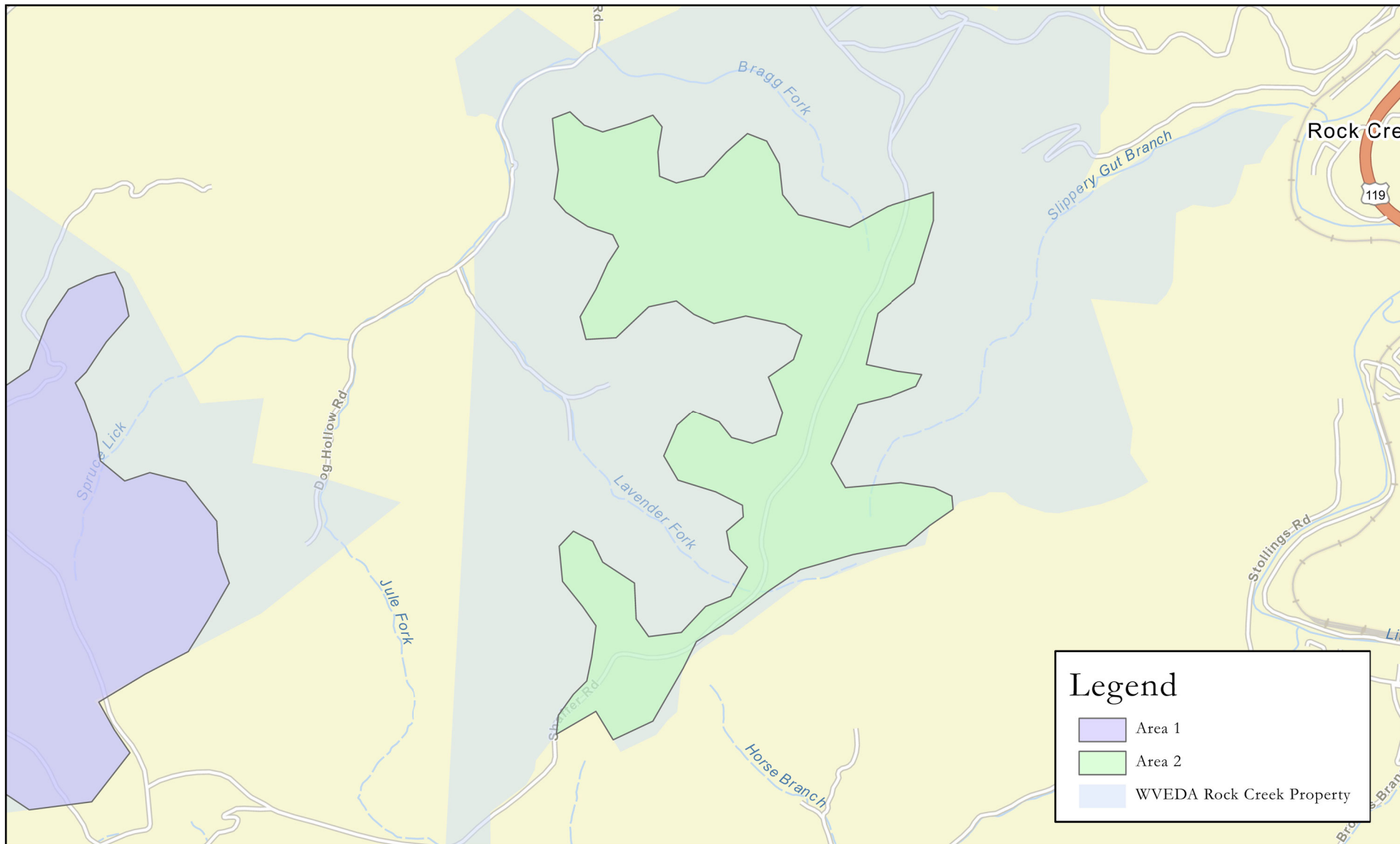
WVEDA Rock Creek Property

(Approximately 915 Acres)

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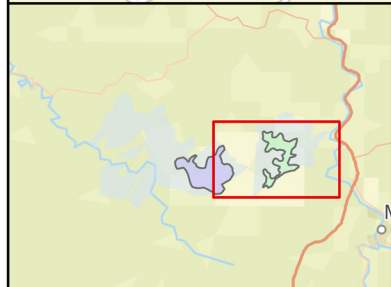
Date: 6/11/2021





Legend

- Area 1
- Area 2
- WVEDA Rock Creek Property



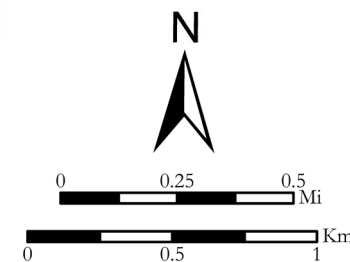
Area 2

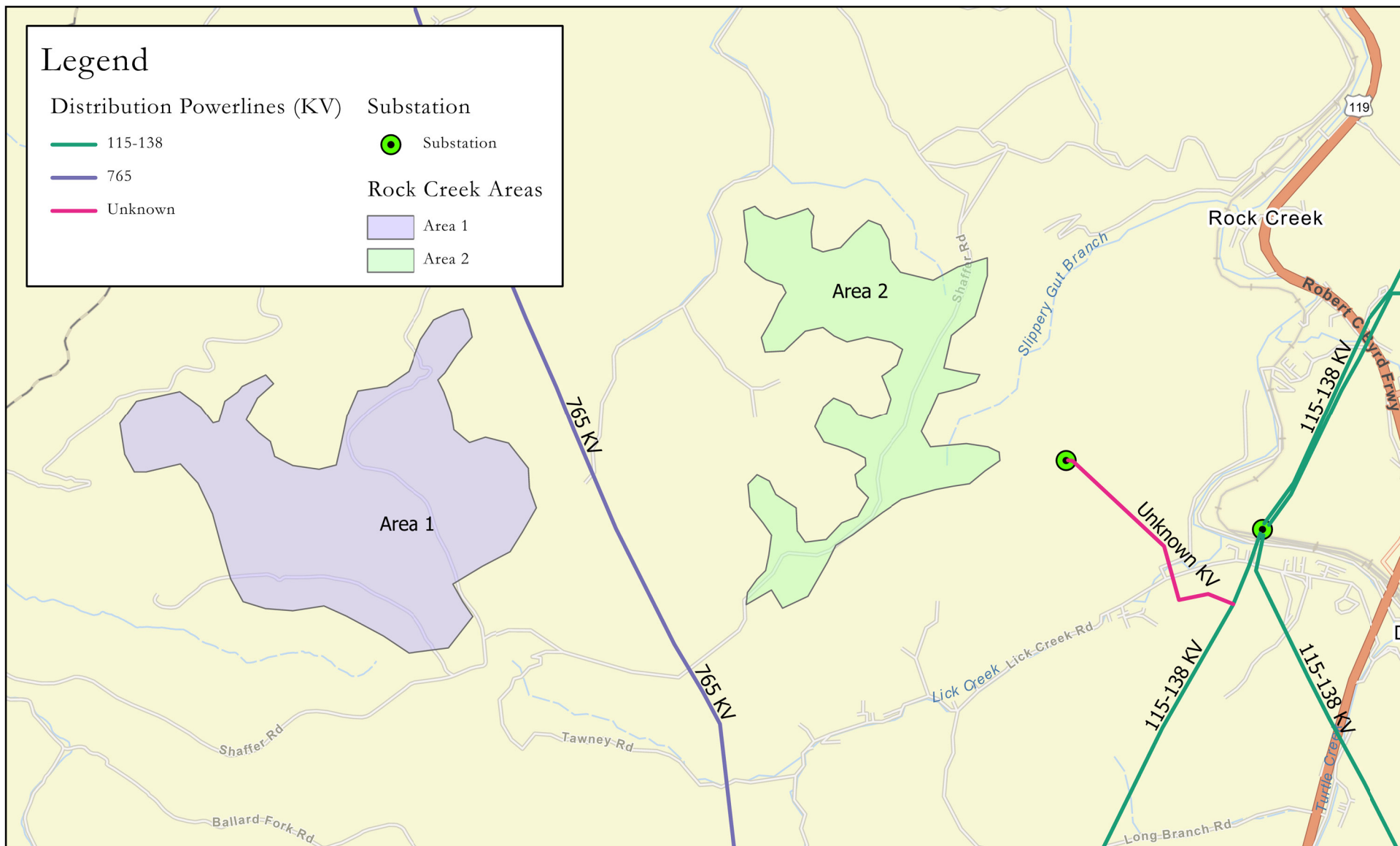
WVEDA Rock Creek Property

(Approximately 560 Acres)

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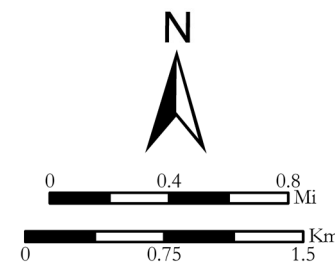


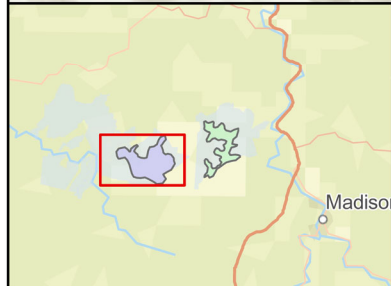
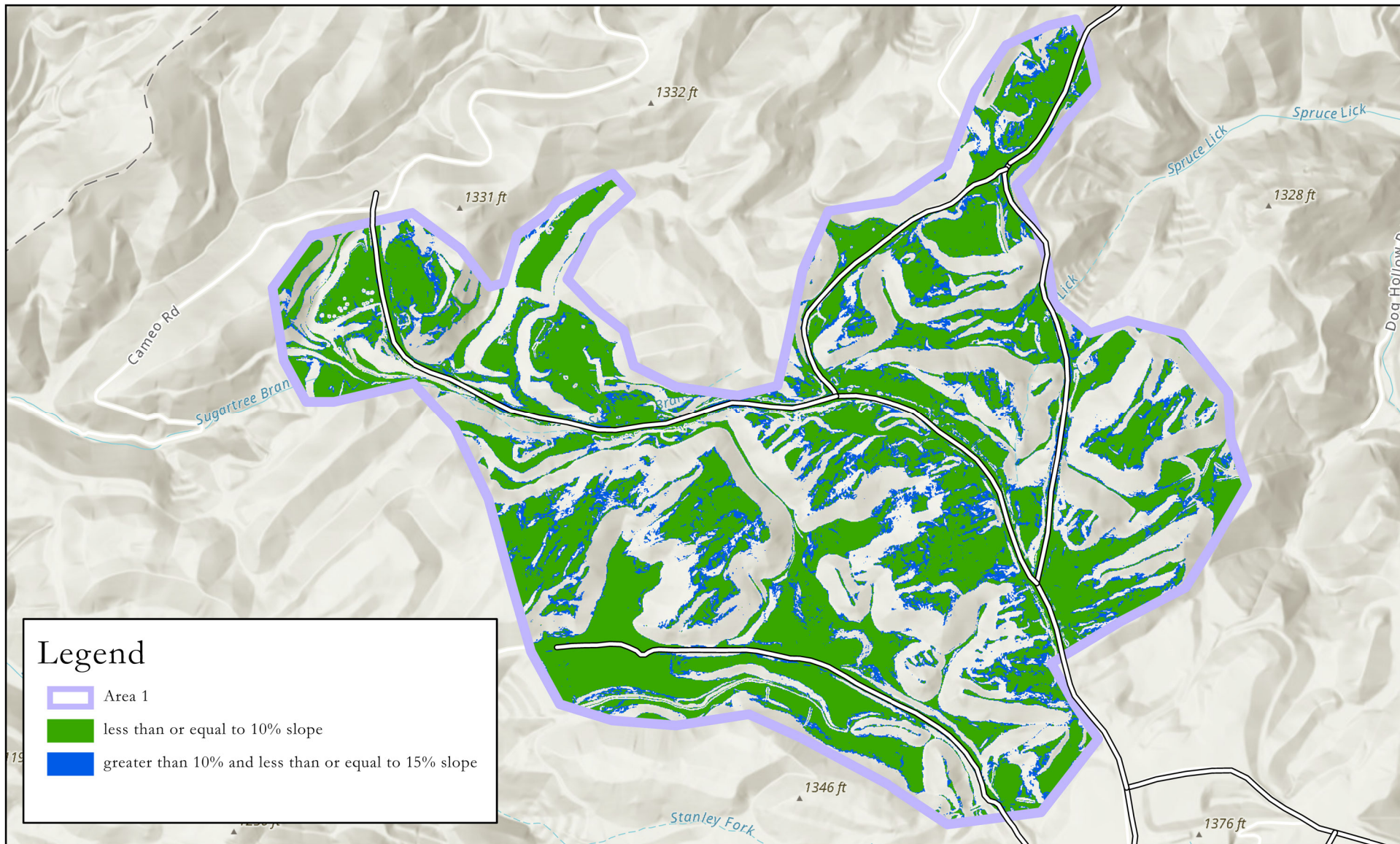


Electric Utility

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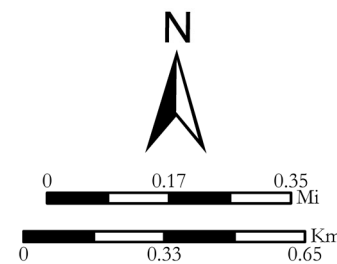


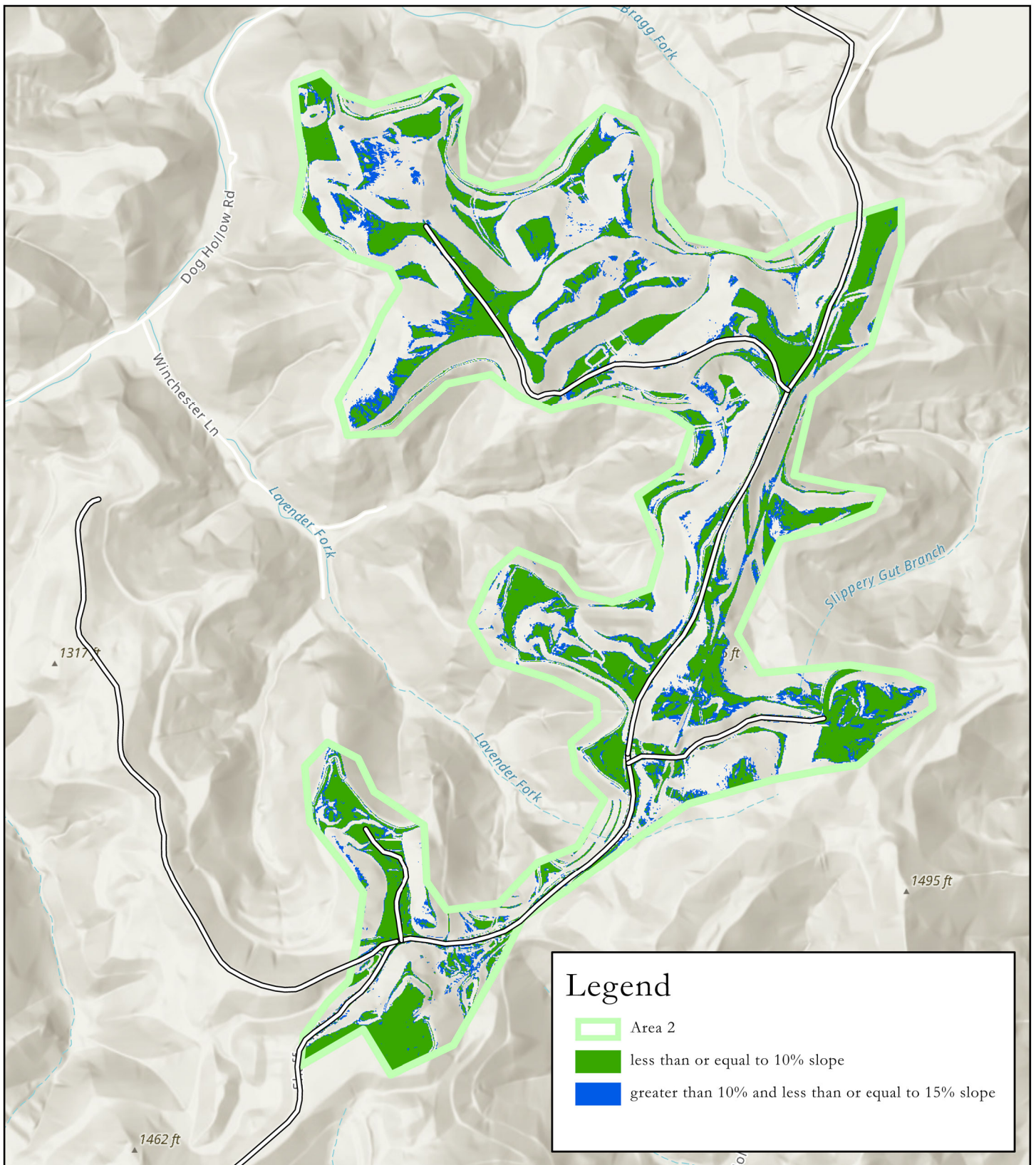


Area 1: Slope

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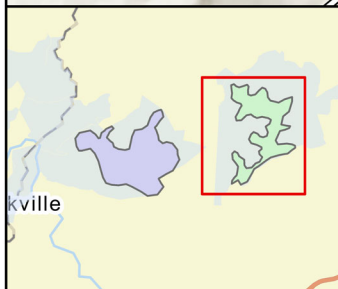
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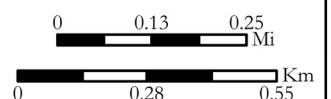
- Area 2
- less than or equal to 10% slope
- greater than 10% and less than or equal to 15% slope



Area 2: Slope

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Rock Creek Area 1 Photos



Area 1 Facing North



Area 1 Facing Northeast

Rock Creek Area 1 Photos



Area 1 Facing Northwest



Area 1 Facing Northwest

Rock Creek Area 1 Photos



Area 1 Facing Southeast



Area 1 Facing South

Rock Creek Area 1 Photos



Area 1 Facing West

Rock Creek Area 2 Photos



Area 2 Facing North



Area 2 Facing Northeast

Rock Creek Area 2 Photos



Area 2 Facing North



Area 2 Facing Northwest

Rock Creek Area 2 Photos



Area 2 Facing South



Area 2 Facing West