Adams County Industrial Park Feasibility Analysis

Prepared by Ohio Valley Regional Development Commission

January 2021

Jacob Taylor

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Introduction

This industrial park feasibility analysis project for Adams County was undertaken by Ohio Valley Regional Development Commission (OVRDC) thanks to the efforts of community members in Adams County and a need for an in-depth look at land resources throughout the county. Those efforts resulted in a partnership between OVRDC and Ohio University's George Voinovich School (GVS). The project became the Building Opportunities Beyond Coal Accelerating Transition Network or BOBCAT Network (hereafter referred to as BOBCAT). BOBCAT's goal was to assist communities in the OVRDC region that have been impacted by the decline of the coal industry. Adams County was a central part of this proposal as the shutdown of two Dayton Power & Light facilities will have a significant detrimental impact on the county. Ohio University's study found the closures would cause the loss of 370 direct jobs at the facilities and 1,131 total lost jobs in Adams and surrounding counties. Additionally, as noted in the same study, the Adams County auditor estimated that Adams County and local governments/schools within the county will lose $8.5 million in tax revenue as a result of these closures. The goal of BOBCAT is to aid in mitigating these impacts and to do so, an industrial site analysis to aid the county in its decision where to direct investment was deemed to be useful and appropriate.

The document here forward is an explanation of the method used to compile the industrial site analysis maps and an analysis of the meaning of the maps. Further, the potential industrial sites on the map have been numbered. These numbers are used in the document as a reference for each site when looking at their suitability. All numbered locations meet the minimum site selection criteria. If there are any further questions or needs, please contact:

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Overview of Industrial Park Feasibility Analysis

An industrial park feasibility analysis uses the physical land characteristics such as soil type, geology, and slope in combination with natural hazards such as flood zones as well as man-made features and areas such as roads and communities to determine suitability of locations for potential industrial park placement. In creating an industrial feasibility analysis, we have also taken on most of the responsibilities of a land use analysis. This action was necessary as a first step since this document's goal is to look at the suitability of the entire county for industrial park placement though it restricts itself to only a few recommended locations. Since industrial parks could be established in locations outside of the ones recommended, we have classified all lands in the county for their most appropriate use. After classifying for their most appropriate use, we then focused on specific criteria to narrow down specific industrial park locations. This process allowed for a narrowly defined and reasonable amount of land suitable for industrial park use while at the same time demonstrating the potential for other types of land to specific levels of development. The recommendations display where development would be most efficient though development can occur in other locations, those locations are expected to be more expensive or burdensome.

The recommendations in this document are not regulatory by themselves and are in no way binding. Recommendations are for the purpose of helping government officials, landowners, and developers make knowledgeable and informed land use decisions; decisions that maximize land resources while minimizing social and economic costs. Economics and social costs resulting from inappropriate land use can lead to public health issues from waste water flowing into vital water supplies, the destruction of economically vital and community cherished green spaces, or the destructions of homes and businesses from flood waters; all costs that can be significantly diminished by informed development if not eliminated altogether. It is important to note that since this is simply a recommendation based on landforms and features, it is not mapped to existing parcel structures which would be a necessity for future land development.

Potential Land Use Classes and Their Meanings

OVRDC staff cooperated with a committee of local community members to discuss, plan, and develop the industrial capabilities analysis. This group came up with the following classes of land use and class requirements. Below, the classes will each be listed with a few short explanatory sentences, along with the class' suitability for industrial development. Then they will be further defined by a criteria list stating each different qualification.

- Industrial
    - This land classification is suitable for the heaviest development. Relatively flat and near to major roads. This class is deemed most suitable for industrial parks and a majority of all recommended locations fall in this class.
    - Criteria:
        - Slope <15◦
        - Not within a Flood Zone
        - Not on Public or Protected Land (ODNR, Nature Preserves)
        - Soil Types defined according to USDA classifications
        - 3/4 of a mile proximity to a major road
        - Not within Restricted Class areas (cultural or environmental resources)
        - Size large enough to support industrial park (Approximately 2,500,000 sq. ft.)
- Commercial or Residential/Light Industrial
    - Land classified for this use is suitable for many uses though not as well suited for heavy development. It is capable of supporting heavier development, including industrial parks, with sufficient investment and may even be a superior location depending on other factors unrelated to the characteristics of the land.
    - Criteria:
        - Slope <15◦
        - Soils suitable for on-site wastewater disposal systems
        - Not deemed suitable for industrial use
        - Not within Restricted Class areas (Cultural or environmental resources)

- Low-Density Residential or Agricultural/Recreational
    - Land classified for this use is suitable for very low-density development. It typically is steep or rugged along with other traits that would make dense development for commercial or industrial purposes a significant challenge.
    - Criteria:
        - Slope > 15◦
        - Soil Limitations for on-site septic systems
        - Not within Restricted Class areas (Cultural or environmental resources)
- Agricultural/Recreational
    - Typically in flood plains, they pose significant hazards to human development or are examples of prime farmland on land unsuitable for heavy development. These lands are not recommended for industrial development barring extraordinary circumstances.
    - Criteria:
        - Land slippage, sinks, or other hazard areas based on geology and soil types
        - Known closed landfill sites
        - Within the FEMA 100-year flood plain
        - Prime farmland as identified by Natural Resource Conservation Service was shifted into this class from Low-Density Residential Class when it was not suitable for commercial or industrial development
        - Not within Restricted Class areas (Cultural or environmental resources)
- Restricted
    - Restricted areas are buffered based on community involvement and decisions to protect valuable natural and cultural resources. Primarily, these are major historical areas around Serpent Mound or the archaeological site around Indian Springs as well as the important water sources on the Ohio River. These lands are not only not recommended for industrial development, but significant barriers are present to any such development.
    - Criteria:
        - Land unavailable for development or use by counties or individuals
        - Wellhead and surface water protection zones where identified
        - This was defined as National Register Sites (NR), a buffer of ½ mile around NR sites, and areas designated as EPA Drinking Water Protection Areas

Methodology

To create a plan fitting with the above requirements, OVRDC staff made use of geographic information systems (GIS). GIS technology allows a user to do detailed analysis through the use of data grouped into layers. These layers are pulled from authoritative sources such as Ohio Department of Natural Resources (ODNR), Federal Emergency Management Agency (FEMA), or the United States Department of Agriculture (USDA). Those layers are then modified by the requirements above to create a layer fitting each of the above larger categories such as Agricultural/Recreation Class. Then the final result is displayed in the countywide and site-specific maps listed at the end of this document.

The analysis for the project began by creating an initial Restricted Class layer of the map. The lands classified as restricted would be considered off-limits to development for OVRDC purposes based upon the land's nature as unique or vital natural or cultural resources. These lands would be absolutely unfeasible to consider for an industrial park since they were locations like Serpent Mound or the Environmental Protection Agency (EPA) Drinking Water Protection Areas. After the Restricted Class, the Industrial criteria layer for Adams County was created. First, a Digital Elevation Model (DEM) taken from the Ohio Geographically Referenced Information Program (OGRIP) was used to create slope measurements for Adams County. After removing county lands beyond the 15◦ maximum, then FEMA's 100-year flood plan data was added to the map. By removing lands in the 100-year flood plain, the extent of potential land was reduced further. The same process of taking new data layers and subtracting their boundaries from the available land in the county was repeated until all the criteria was met leaving only areas suitable for industrial development. The other data sources were USDA soil map, the Ohio History Connection, ODNR lands, National Forests, locally protected lands such as the Edge of Appalachia, and outside of the Restricted Class mentioned earlier. As the last step, the output was cleaned to remove too small blocks of Industrial Class land and pieces of data too distant to major roadways. At this point, the basic aspects of the Industrial Class layer were complete.

While the Industrial Class layer was the first, the other layers were still needed for completion and use for planning for OVRDC's recommendations and future use. The other classifications have an important role in the industrial site analysis by functioning as a ranking for how appropriate industrial site placement would be in any given location. The GIS analysis was completed through the manipulation of data layers for each other classification. The process for the other layers were similar to the Industrial Class layer. Lands were "subtracted" based on criteria, but since each layer was less strict than the one before, it eventually filled the county. In addition to the data sources, each layer took into consideration

more stringent classification types. Therefore, the Commercial classification was completed before the Agricultural/Recreational or Low-Density Residential classification then, contrary to expectations, the Agricultural/Recreational classification was completed next. This change in the expected order was because the Agricultural/Recreational classification was mostly an additive process instead of a subtractive and the final layer was the least strict being Low-Density Residential. The other classifications were defined by their ability to either not be another classification or by their ability to not withstand certain types of development. The Agricultural/Recreation classification was defined by it being certain types of landforms which are not ideal for any other development. These types of land classifications were almost exclusively FEMA 100-year floodplain areas and prime farmland classifications when those prime farmlands did not conflict with commercial or industrial potential uses. The final classification, Low-Density Residential Class is the broadest category. The only true restriction for the classification was that it was not within a Restricted Class designated location.

How to Use

A series of maps are included in this document. The maps are first a map of Adams County, a map of the historic site locations, a map of the project scaled for all of Adams County, project maps for each of the nine selected industrial locations. The map of Adams County is a standard road and political map for orientation and familiarity with the location. It includes the smallest roads labeled on it whereas the county-wide project map does not for the sake of the project map's readability. The historical location site information is included from the Ohio History Connection Online Mapping System for use in industrial site decisions since there would be potential burdens placed on any projects developed near or on a site with historical properties. The historical site map is approximate and for reference as any project should consult the most up to date and accurate information from the state offices.

The project maps are all presented in the same style with the same types of information. The map presents all county lands fitting the credentials as a series of solid colors. These are yellow for Industrial, orange for Commercial, grey for Low-Density Residential, teal for Agricultural, and purple for Restricted. Restricted Class is somewhat different than the others in that it is represented in the legend with three different types of symbols. These are a purple hatched line symbol, a brighter purple, and a lavender purple. These are for distinguishing the different types of Restricted Class lands. The brighter purple is the National Register lands located at Sandy Springs and Serpent Mound. The hatched lines are the

buffer around them based on community consultation. The lavender is the standard restricted area mostly the EPA Drinking Water Protection Areas. Included on the map are protected natural lands in green from public or private sources, Adams' County Opportunity Zone, and current existent or planned industrial park locations.

The BOBCAT project set out to advise a minimum of two locations for industrial park use. OVRDC has selected more than this to sufficiently spread out the locations across the county. These are marked on the map with a back outline and a number from 1-9. These are numbered working from the south to the north of the map and the numbers are based on their location not on any ranking. There are a cluster of recommended locations grouped in the northwest corner of the county. This is because of the importance of the Opportunity Zone as a potential benefit to businesses. Opportunity Zones were established as a result of the Federal Tax Cut and Jobs Act of 2017. These zones created by the State of Ohio and the U.S. Treasury are located in 320 economically distressed census tracts among 73 Ohio counties. Adams County has one zone located in the northwest of the county.

Identified Industrial Park Locations

The following are the OVRDC identified potential industrial park as well a short description of the particular selection. These locations are simply potential locations and there are other possible locations that could be identified in addition or instead of the locations mentioned.

1. Located near the Village of Manchester to the west, this site is located along US 52. It was selected from the few suitable locations along the Ohio River. It is near the former J.M. Stuart Power station. Of the two Ohio River sites, this one is the larger site.
2. Located between the Village of Manchester and Rome, this site is located along US 52. It was selected from the view suitable locations along the Ohio River. It is near the former Killen power station. Of the two Ohio River sites, this one is the smaller. Its size may pose issues for substantial development without bringing the Killen Power station land into use.
3. Located between the Village of Bentonville and the Village of West Union, this site is located along SR 41. The location is close to the edge of West Union, the largest population center in the county. However, this site lacks easy access to major roadways which in the county are limited to SR 32 and US 52.

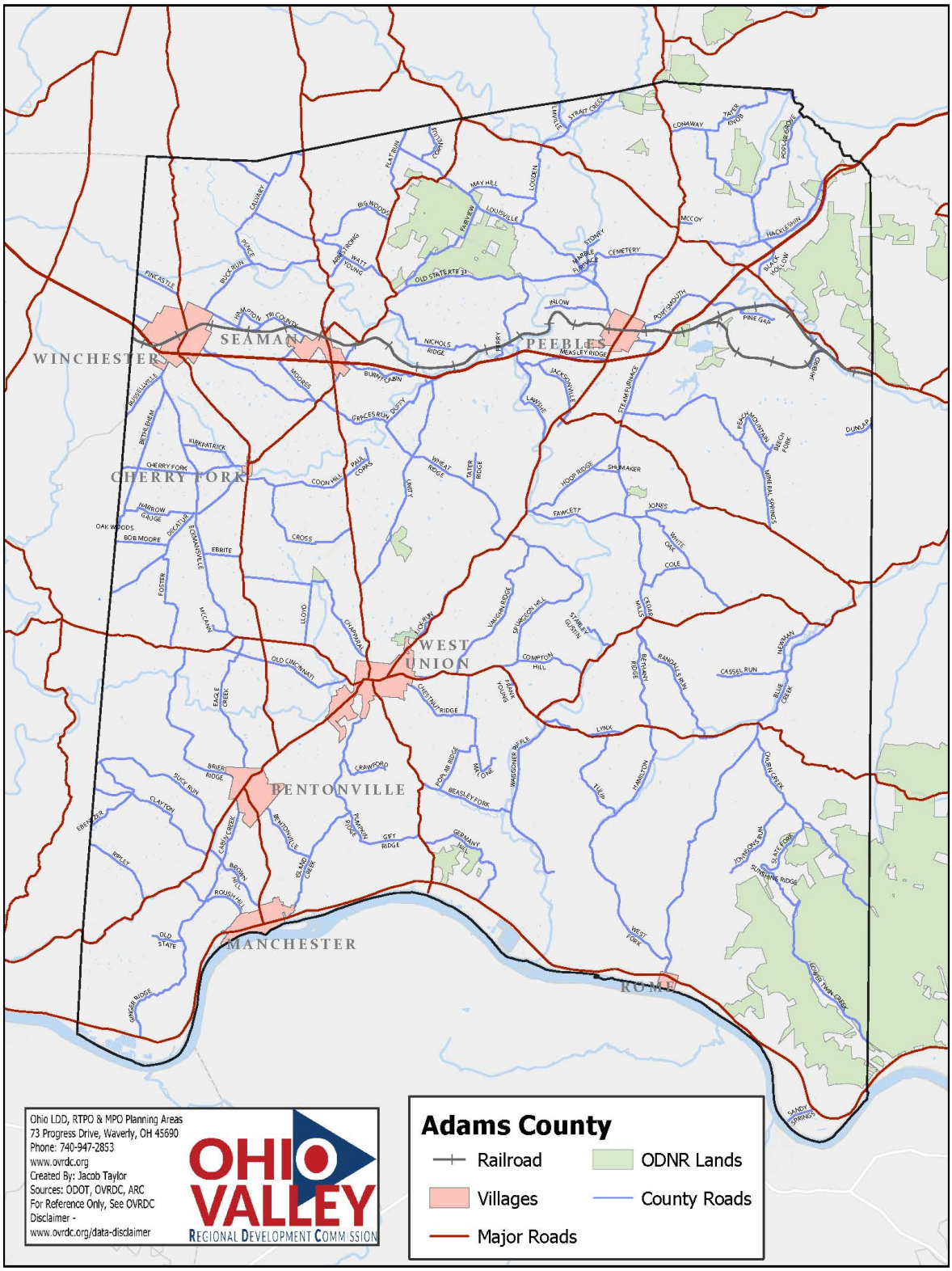
4. Located northwest of the Village of West Union, this site is located along SR 125 and near the junction with SR 136. This site is located in the largest unbroken stretch of land suitable to industrial development in the county. It, like location 3, is also somewhat distant from major roadways.
5. Located near at the edge of the Village of Peebles, this site is located along SR 41 and near the intersection with SR 32. It touches the edge of the village limits and is close to an active rail line. Of the two locations near the Village of Peebles, this is location would be preferred based on committee comments and our criteria.
6. Located near the Village of Peebles, this site is located along both CR 198/Portsmouth Rd. and SR 32. The location is selected from a relatively large area of industrial suitable land that is broken up by rises in elevation or floodplains. This location which also would be located adjacent to the railroad, was selected as the best of the available lands. However, despite its advantages, the site has a few hinderances to development. The location is located on the north side of the road where there is more developable land, but not much road frontage. A road would have to be constructed to make full use of the land. The area is also somewhat hemmed in by the natural features forcing development down a corridor perpendicular to the road instead of along the existing infrastructure. Perhaps the most pressing concern is from comments by the planning committee that expressed concerns over the watershed in the area since it is a valuable resource for both drinking water and ecological purposes.
7. Located near the Village of Seaman, this site is located along Tri-County Rd. and Moore's Rd. It is located within Adams County's Opportunity Zone. The site is located on a smaller section of industrial suitable land at the edge of Seaman, but it is comparable to the larger existent industrial parks. The park here is near the railroad. Of the three industrial site locations near Seaman/Winchester, this is likely the least developable. Despite good land features and transportation access, there is a North Adam High School in the immediate vicinity.
8. Located near the Village of Winchester, this site is located along SR 32 and Graces Run Rd. It is near the rail line that passes through northern Adams County and it also located in the County's Opportunity Zone. Of the three identified industrial sites near Seaman/Winchester, this one would be highly recommended since there are little impediments to development in term of land features or expressed concerns.
9. Located south of, but near to the Village of Winchester, this site is located along SR 136 and a short distance from SR 32. It is just outside of the County's Opportunity Zone which makes it less

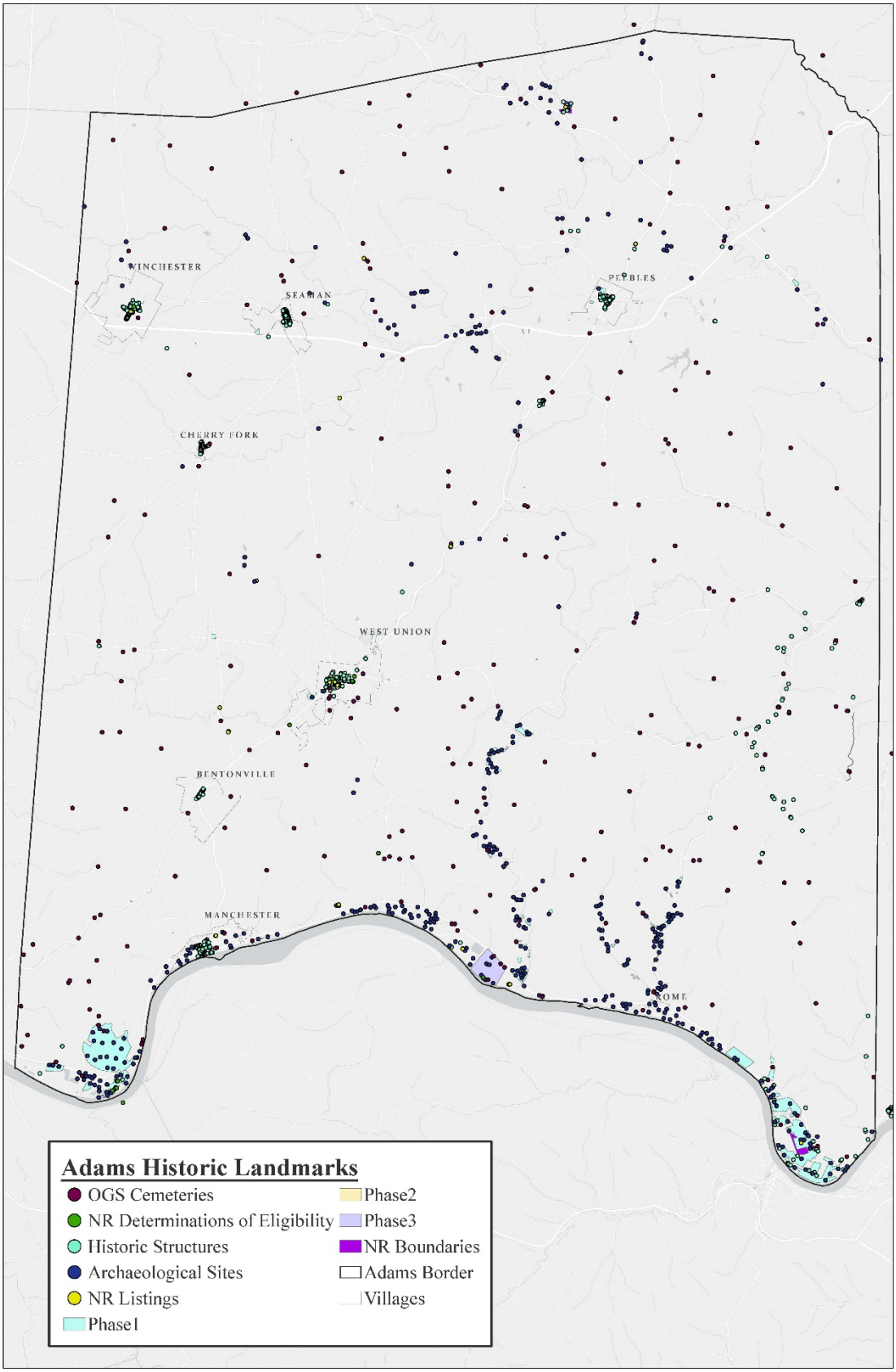
favorable than the other Winchester location. Otherwise, the location has many of the land features sits on land with high development potential.

Those locations previously mentioned are all locations that have been identified via the resources available to us for potential industrial site selection. It bares mentioning though that the recently developed Winchester Industrial Park located on SR 32 and directly west of and adjacent to the Village of Winchester would be ranked highly by the established criteria and would likely be one of the best potential locations to develop. Now that the location is already owned and being prepared, the Winchester Industrial Park is in an ideal location situated along the rail line in Adams County and along SR 32.

Maps

Maps begin on the next page and continue to the end of the document.


WINCHESTER
SEAMAN
PEEBLES
CHERRY FORK
WEST UNION
PENTONVILLE
MANCHESTER
ROME
Ohio LDD, RTPO & MPO Planning Areas
73 Progress Drive, Waverly, OH 45690
Phone: 740-947-2853
www.ovrdc.org
Created By: Jacob Taylor
Sources: ODOT, OVRDC, ARC
For Reference Only, See OVRDC
Disclaimer -
www.ovrdc.org/data-disclaimer
OHIO VALLEY
REGIONAL DEVELOPMENT COMMISSION
Adams County
Railroad
Villages
Major Roads
ODNR Lands
County Roads


WINCHESTER
SEAMAN
PEEBLES
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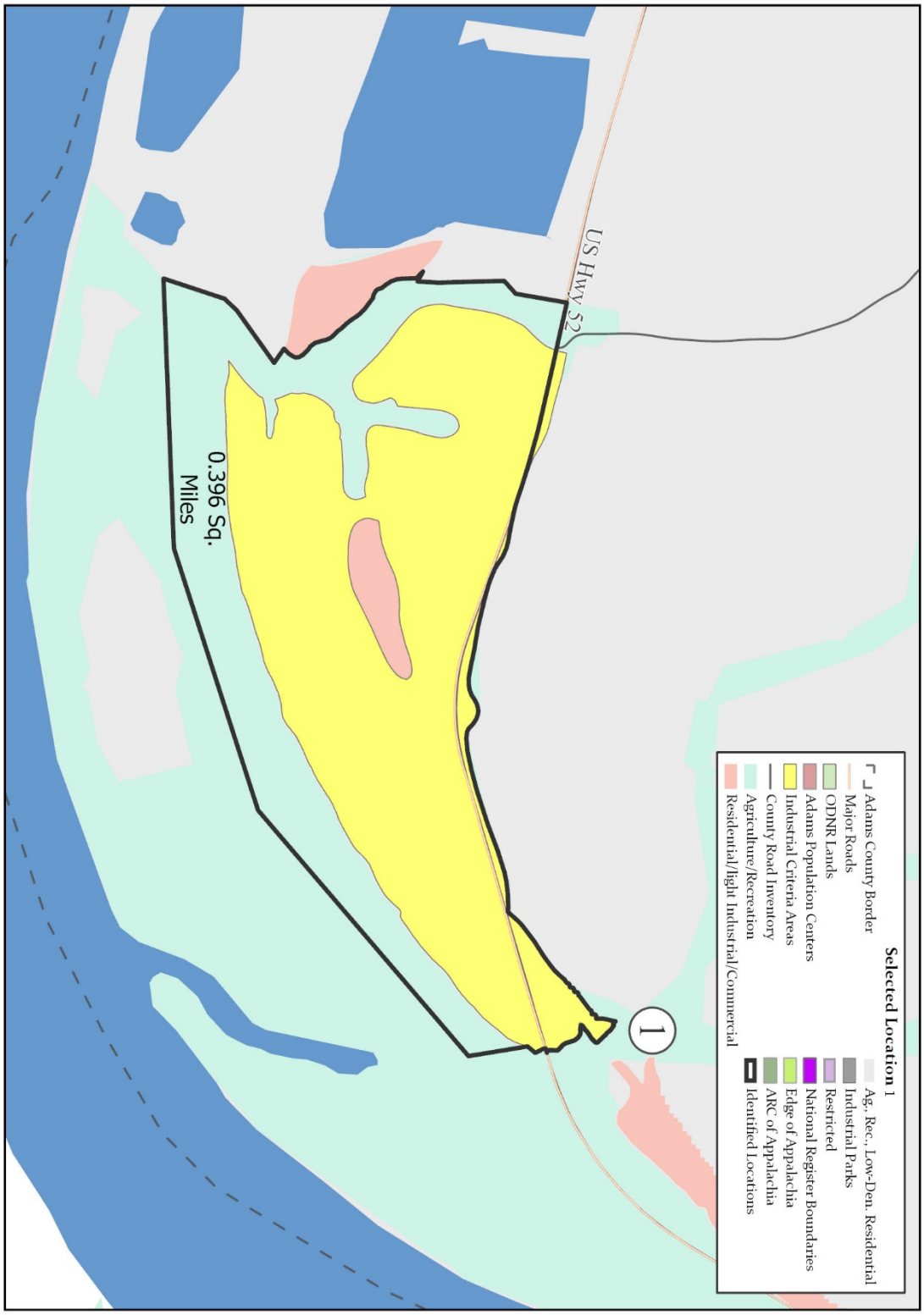
WEST UNION
BENTONVILLE
MANCHESTER
ROME
Adams Historic Landmarks
OGS Cemeteries
NR Determinations of Eligibility
Historic Structures
Archaeological Sites
NR Listings
Phase1
Phase2
Phase3
NR Boundaries
Adams Border
Villages


Winchester
Seaman
Peebles
Cherry Fork
West Union
Bentonville
Manchester
Rome
Industrial Park
Appalachian Hwy
State Rte 32
State Rte 247
State Rte 136
State Rte 137
State Rte 41
State Rte 781
State Rte 348
State Rte 125
State Rte 763
State Rte 242
US Hwy 52
Main St
2nd St
Adams County Land Capabilites Analysis
Adams County Border
NR Boundaries Buffer
Major Roads
Railroad
County Road Inventory
Restricted
National Register Boundaries
ARC of Appalachia
EOA Boundary
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
Opportunity Zone
Residential/Light Industrial/Commercial
Agriculture/Recreation
Ag., Rec., Low-Den. Residential
Adams County Industrial Parks
OHIO VALLEY
REGIONAL DEVELOPMENT COMMISSION

Site 1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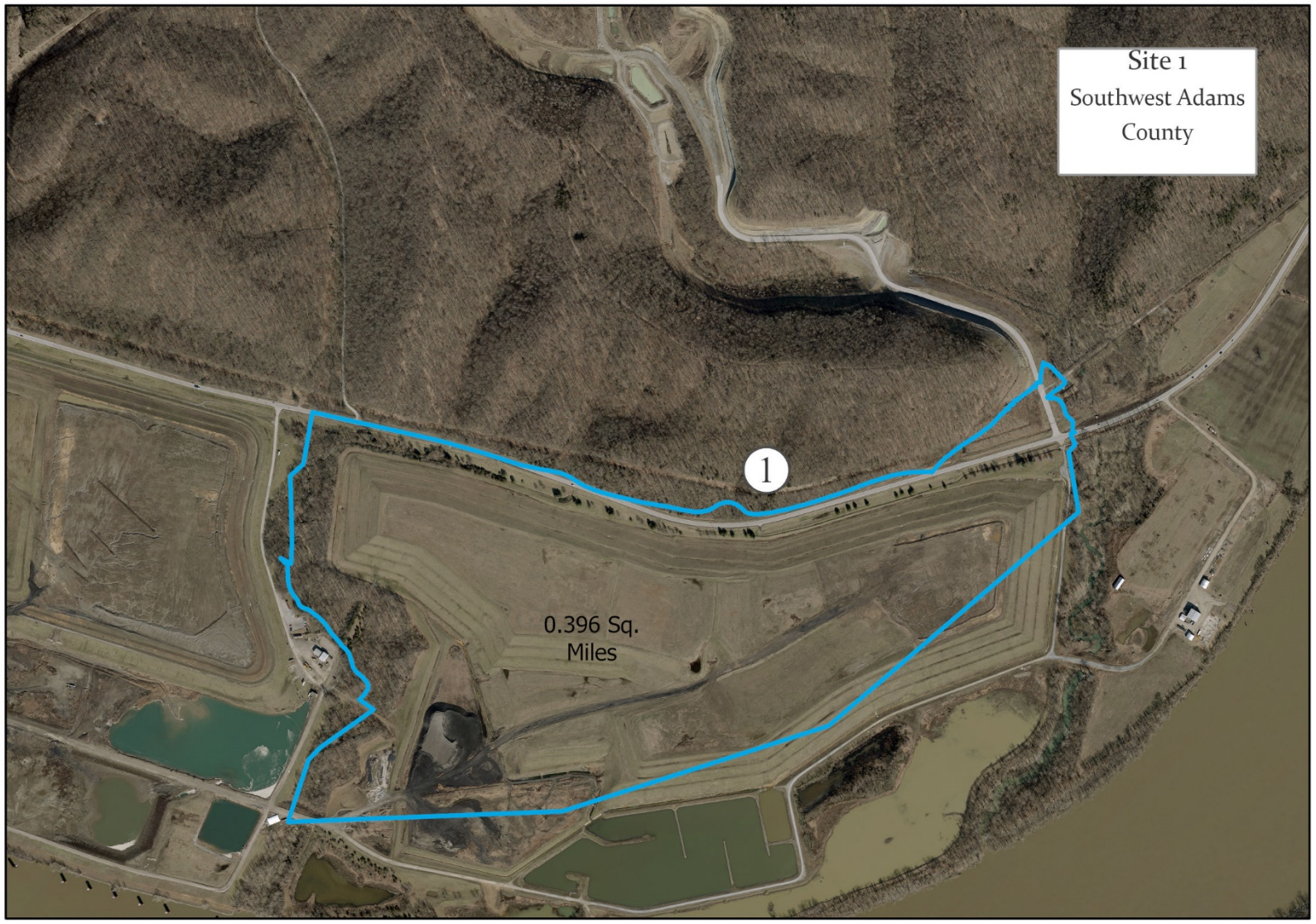
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
US Hwy 52
0.396 Sq. Miles
1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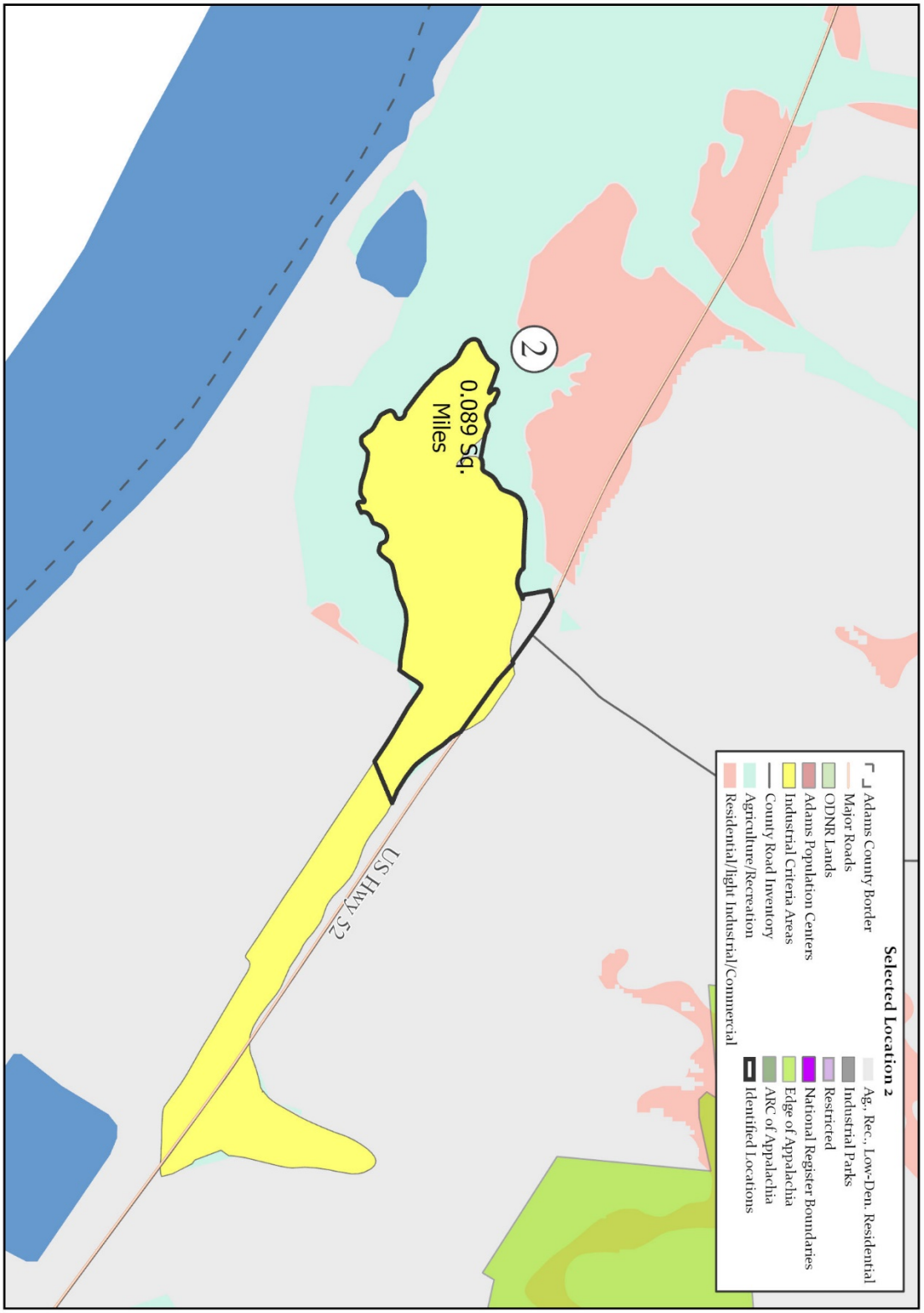
Southwest Adams
County
1
0.396 Sq.
Miles

Site 2


2
0.089 Sq. Miles
US Hwy 52
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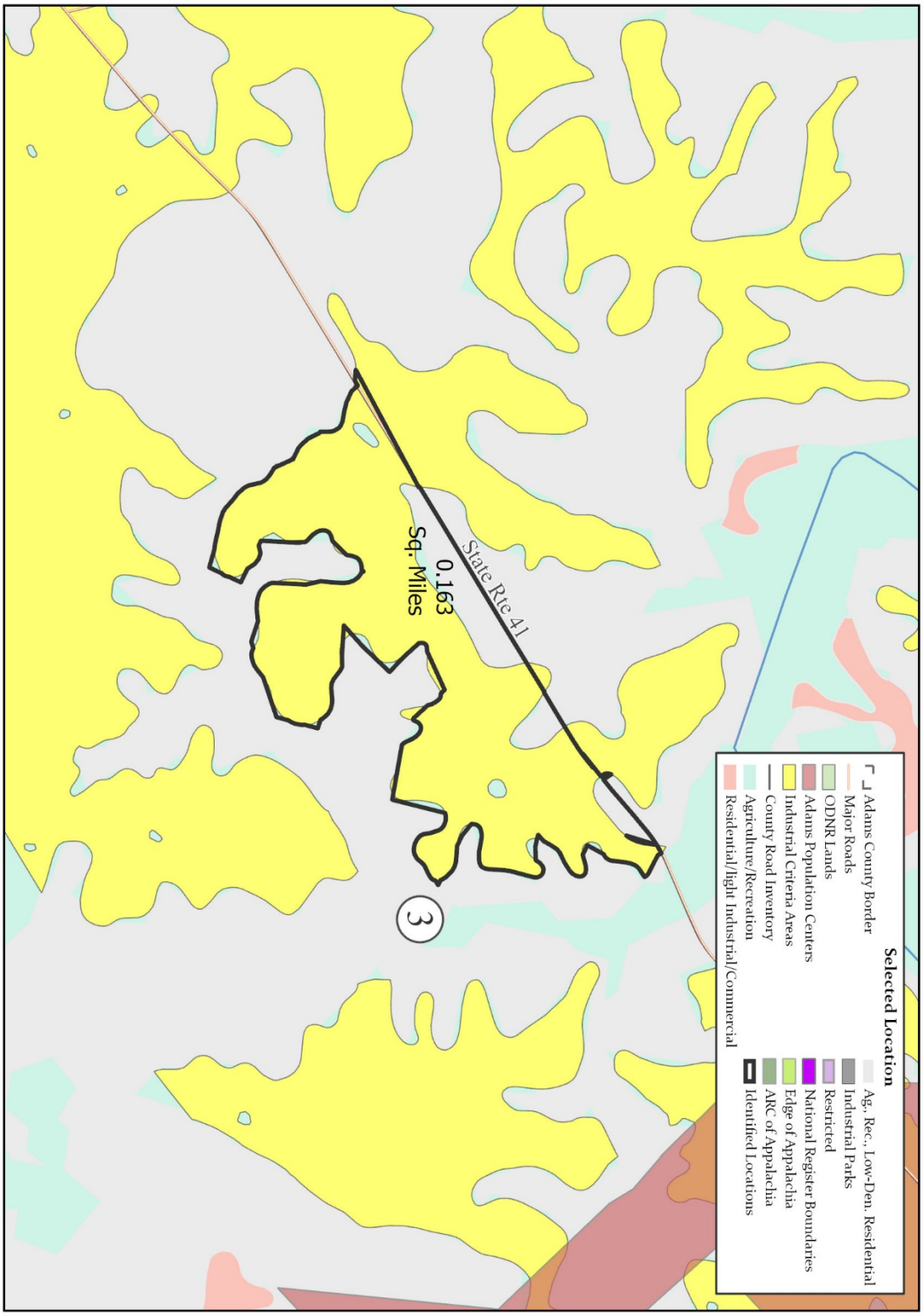
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations


Site 2
South Central
Adams County
2
0.089 Sq.
Miles

Site 3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Adams County Border
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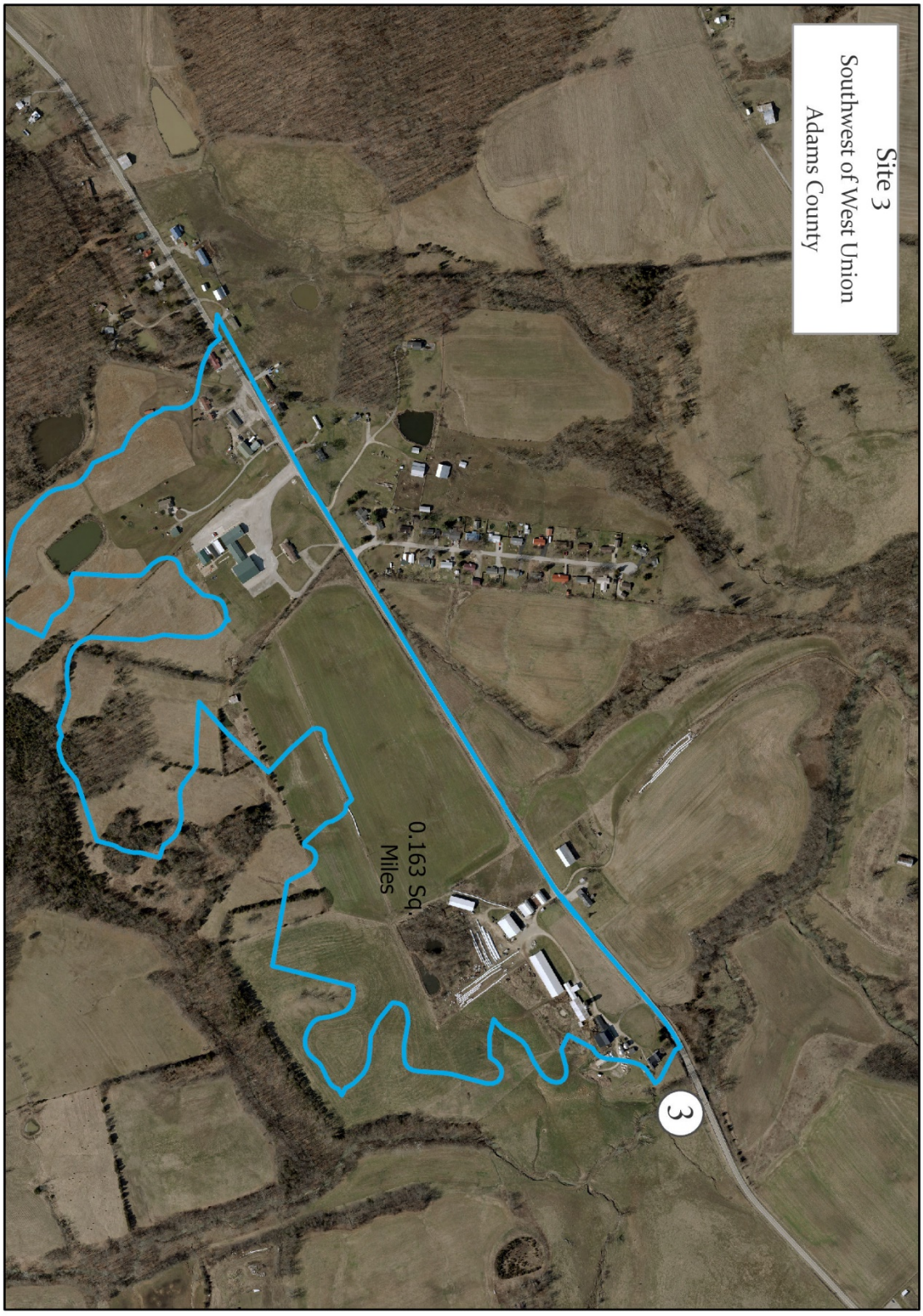
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
State Rte 41
0.163
Sq. Miles
3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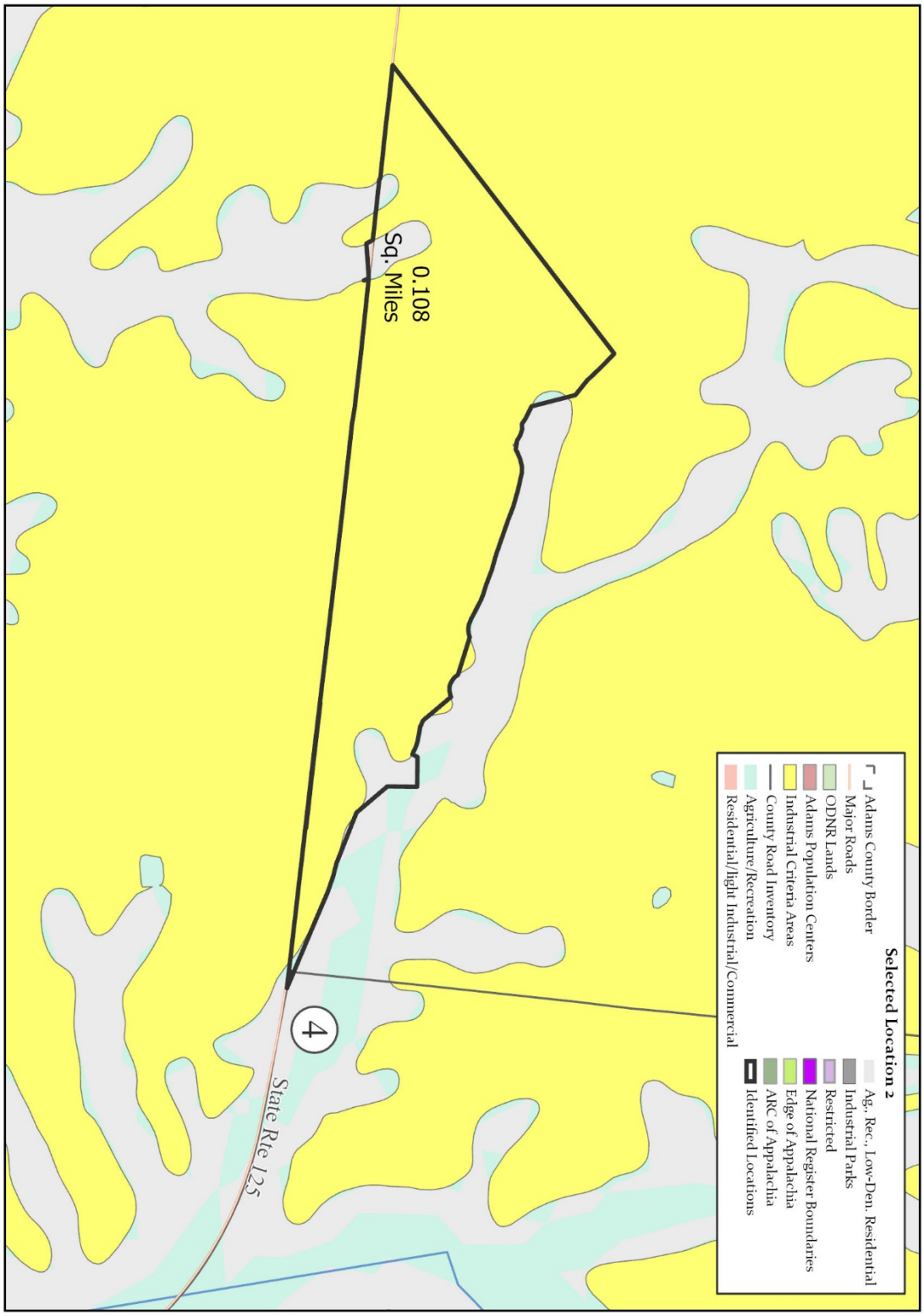
Southwest of West Union
Adams County
0.163 Sq.
Miles
3

Site 4


0.108
Sq. Miles
4
State Rte 125
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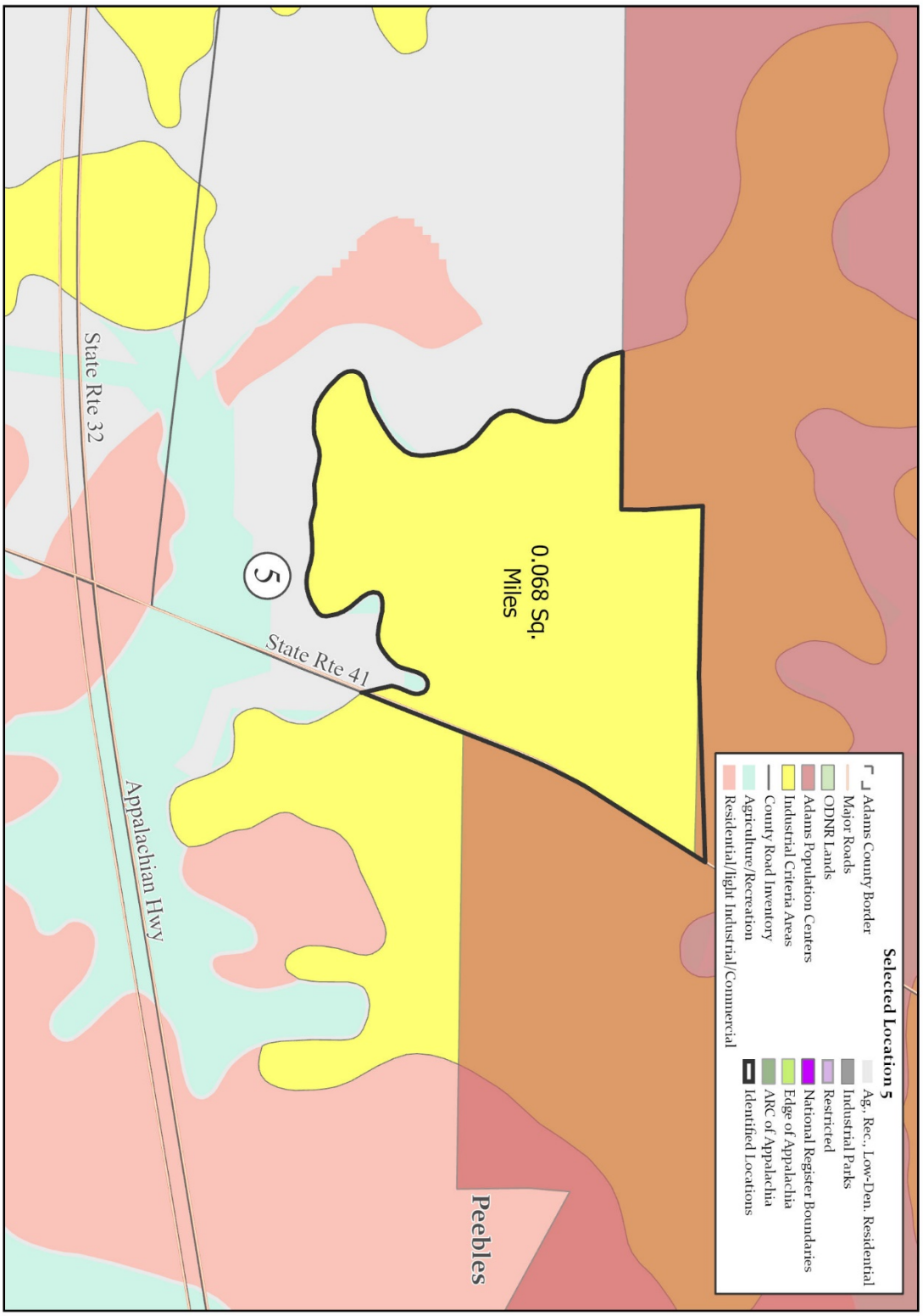
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations


Site 4
Northwest of West Union
Adams County

Site 5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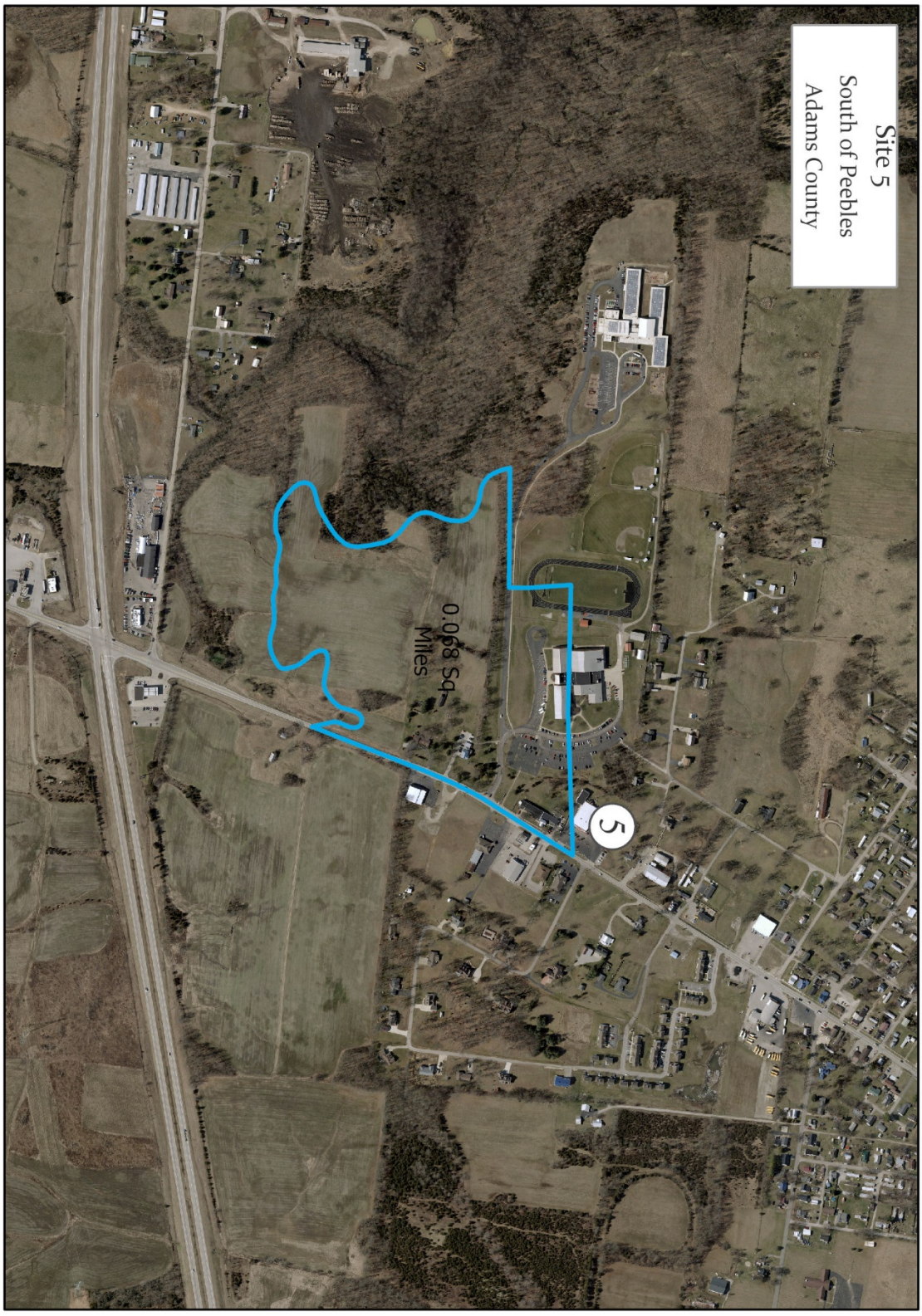
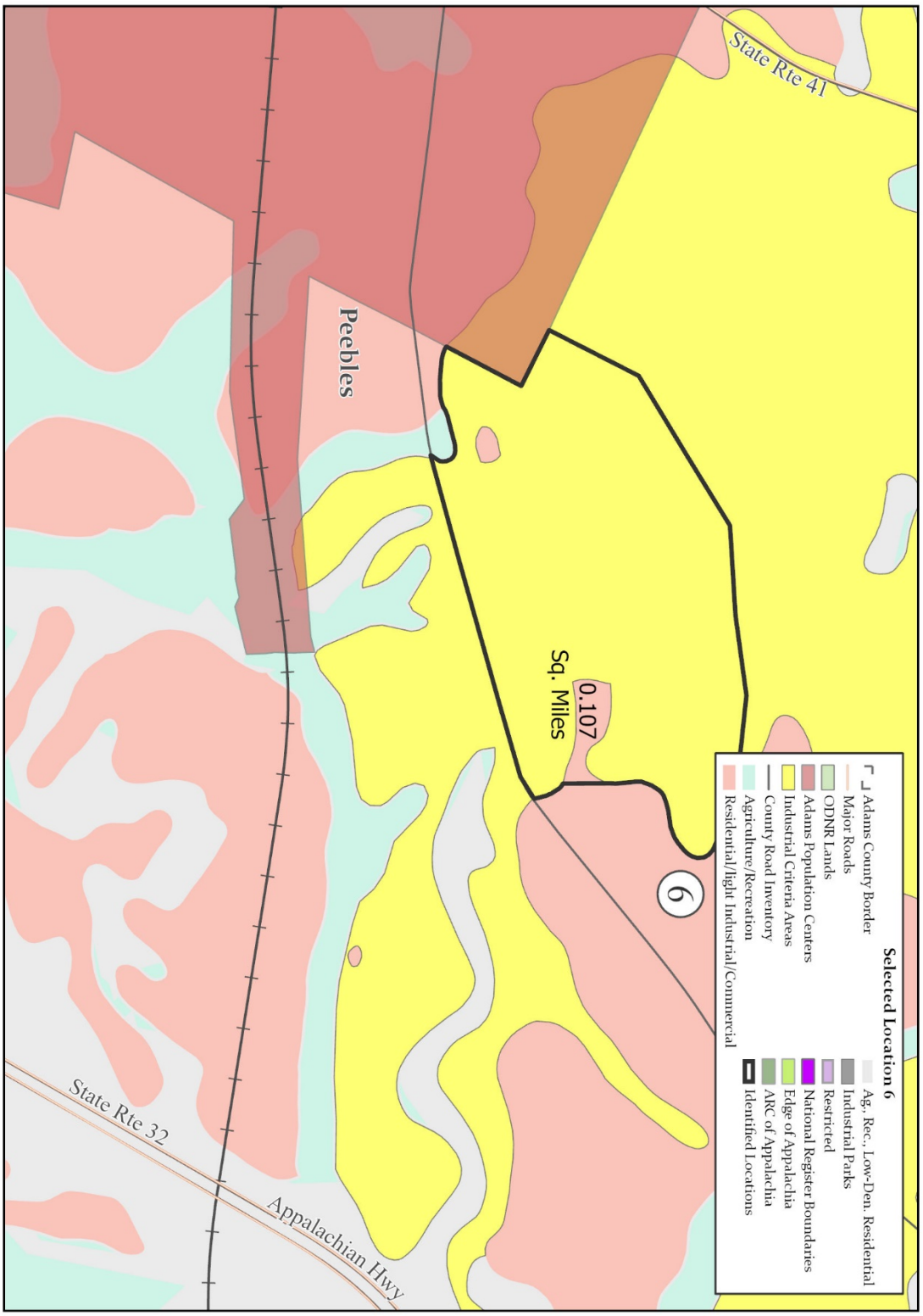
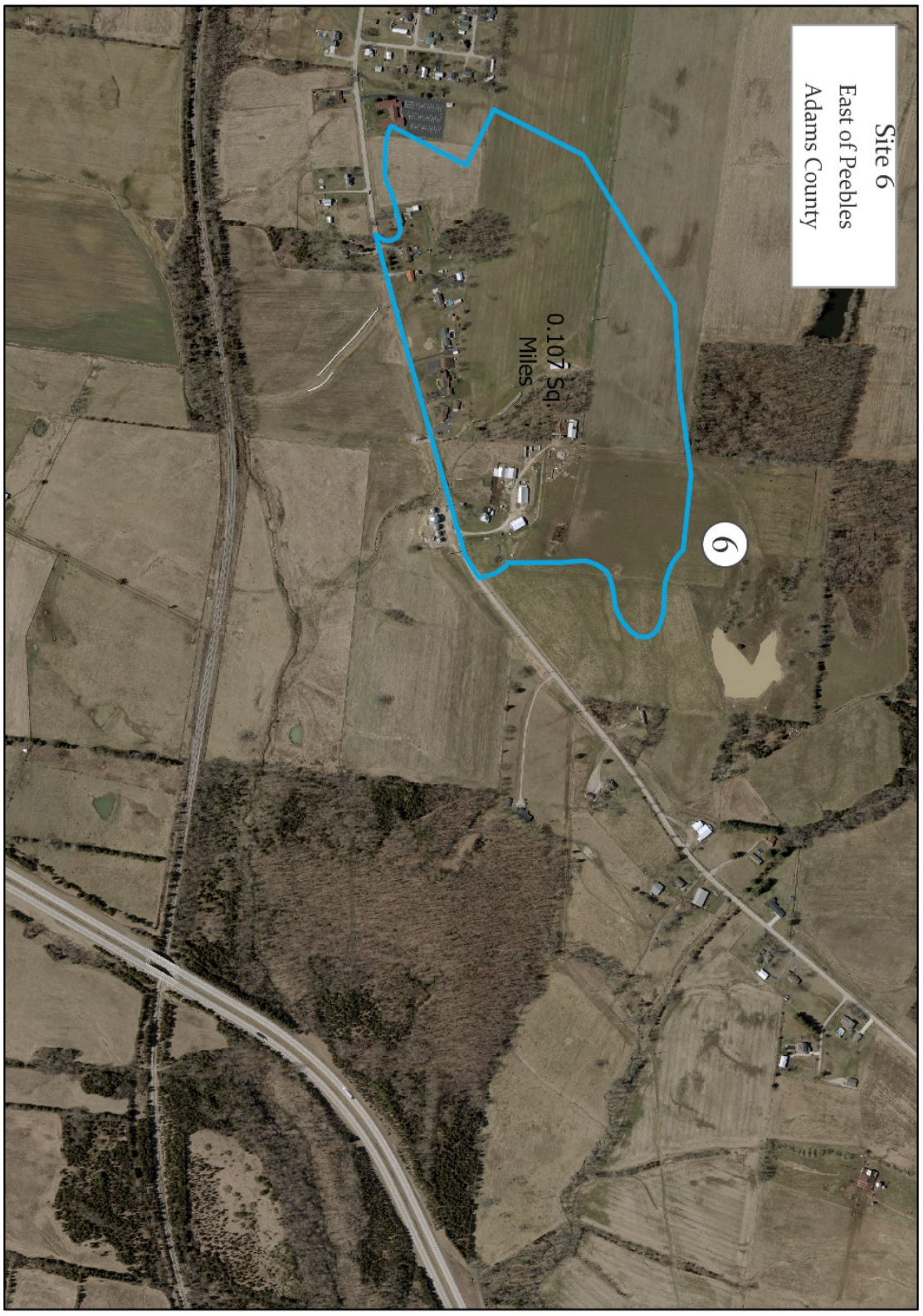
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
0.068 Sq. Miles
5
State Rte 41
State Rte 32
Appalachian Hwy
Peebles

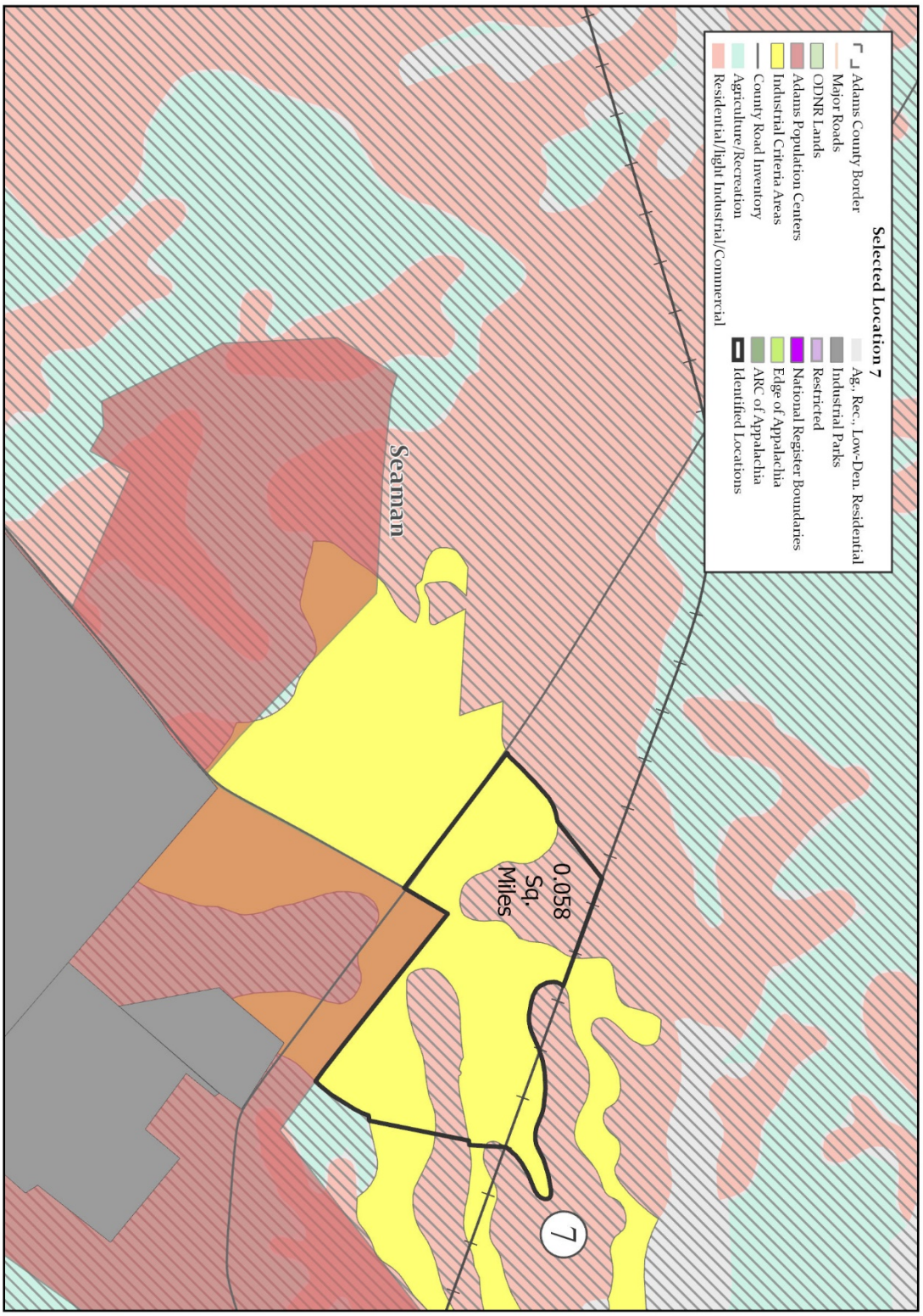

Site 5
South of Peebles
Adams County
0.068 Sq. Miles
5

Site 6


State Rte 41
Peebles
Sq. Miles
0.107
6
State Rte 32
Appalachian Hwy
Selected Location 6
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations


Site 6
East of Peebles
Adams County
0.107 Sq.
Miles
6

Site 7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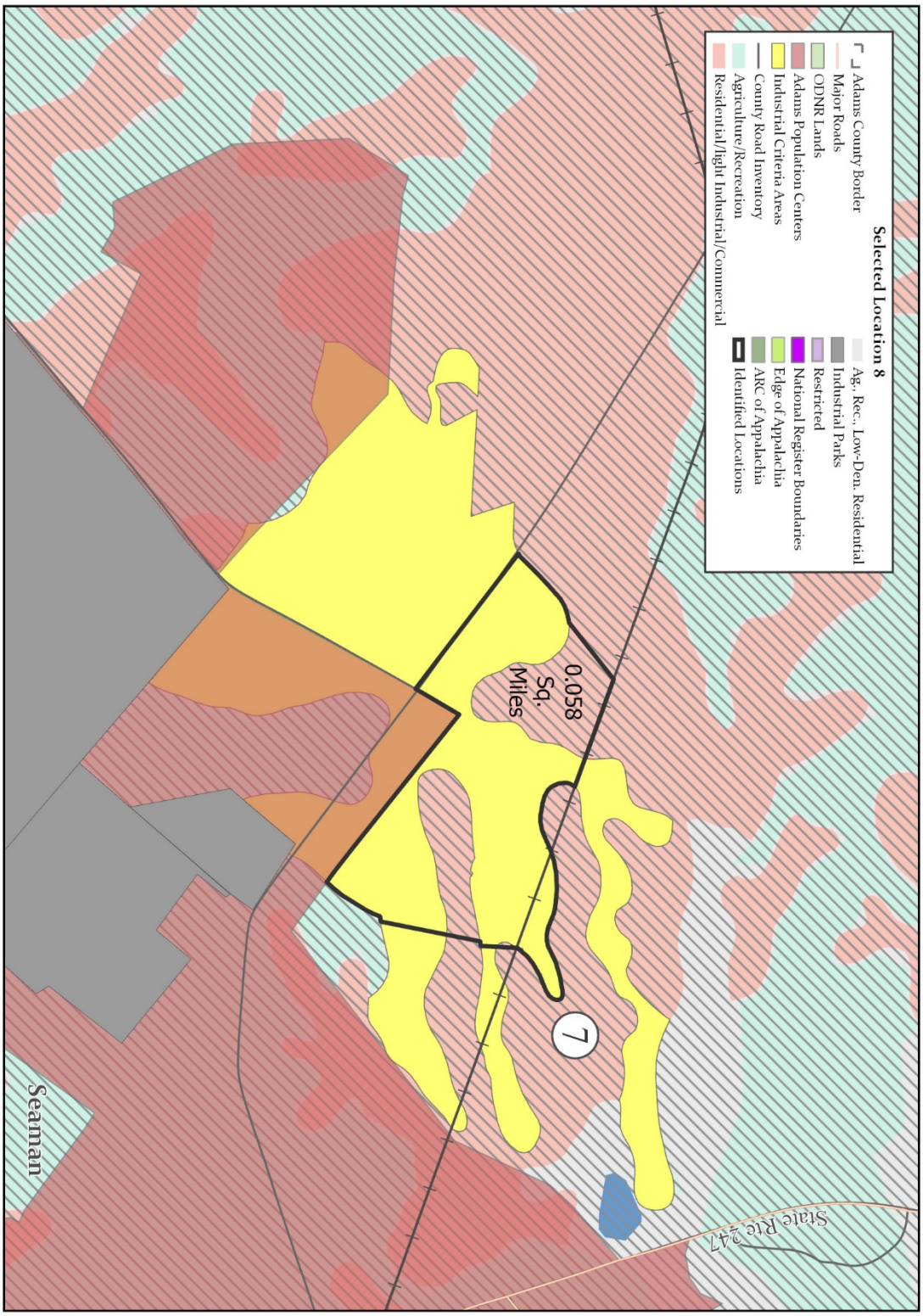
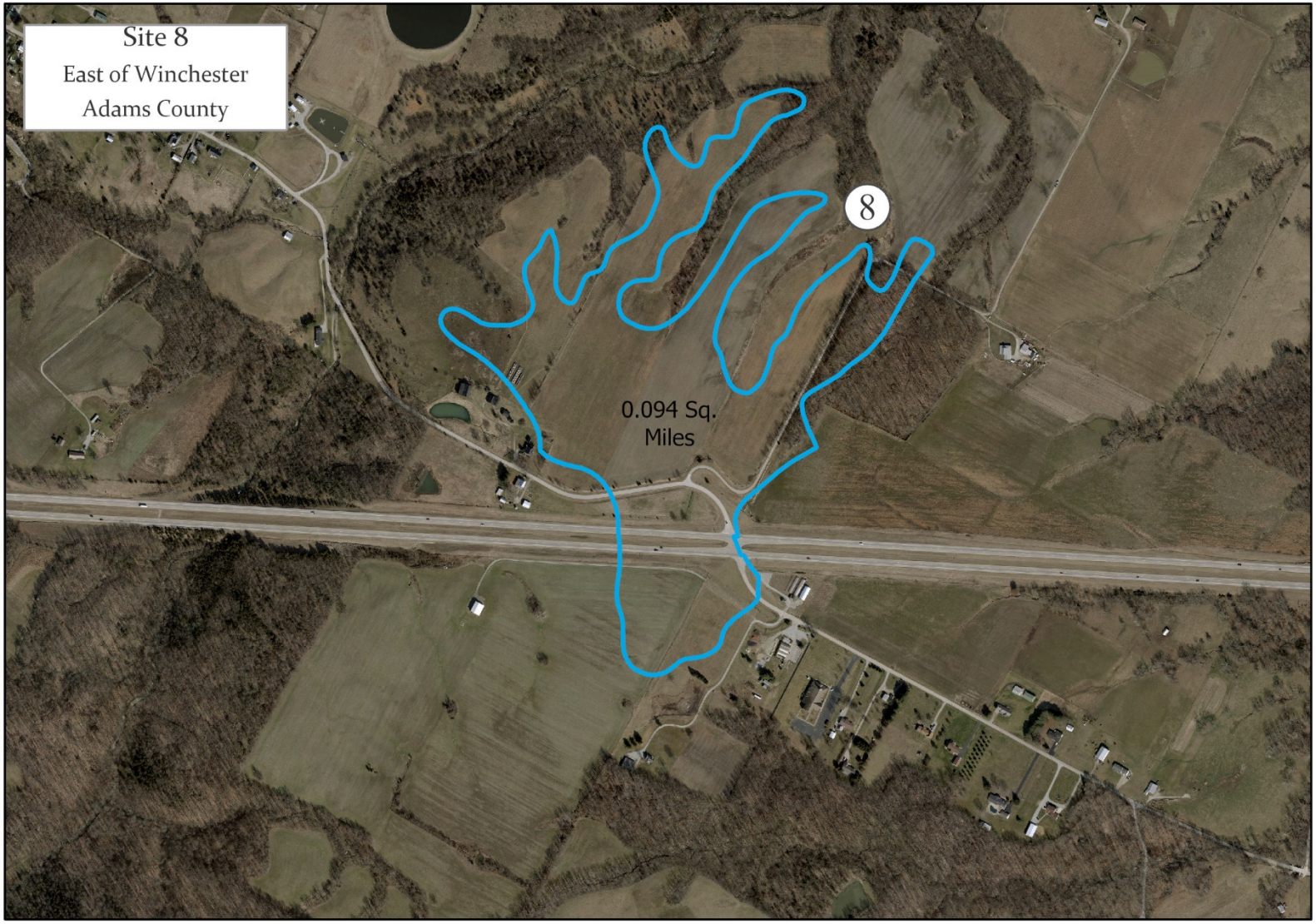
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
Seaman
0.058
Sq.
Miles
7

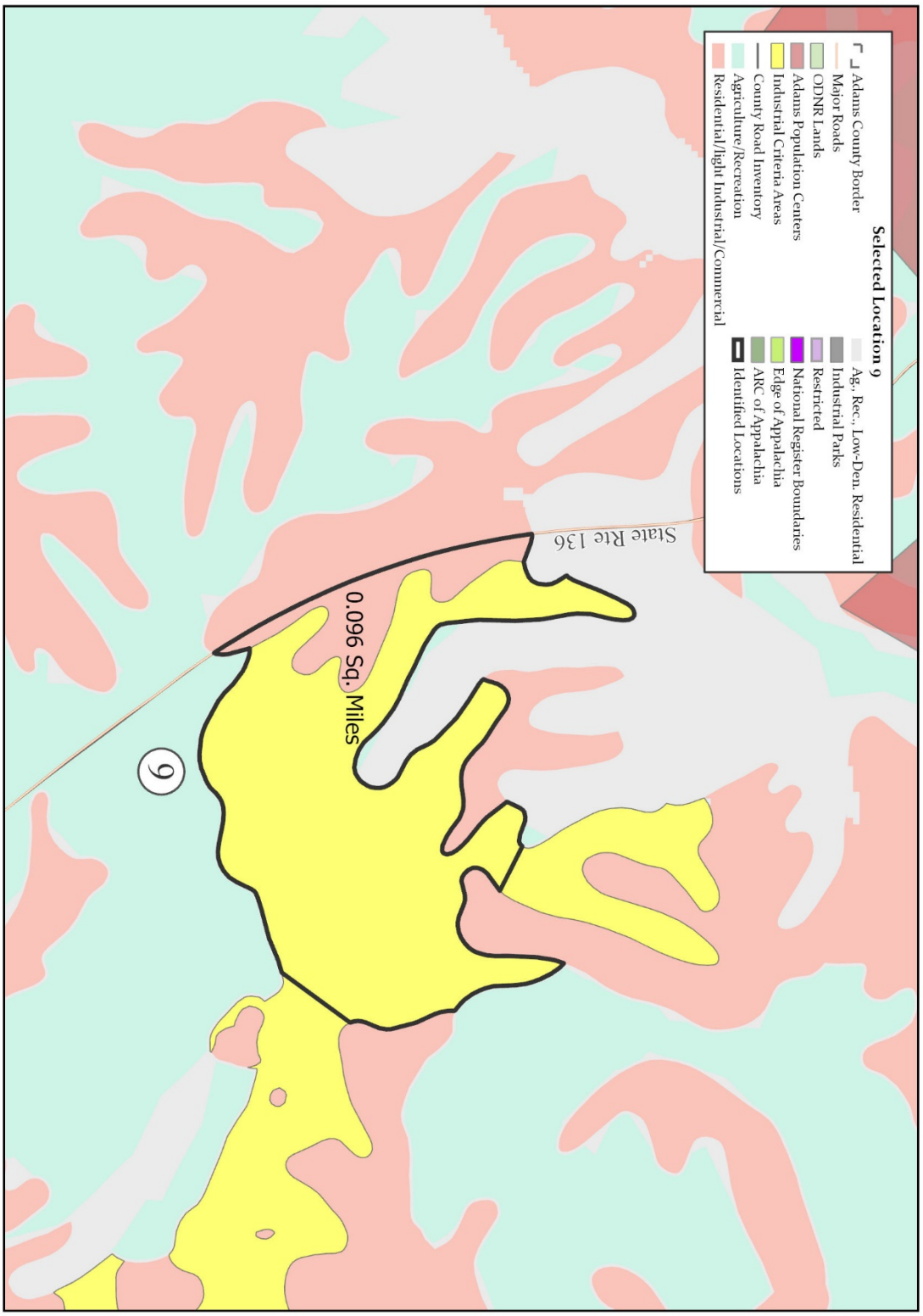

Site 7
West of Seaman
Adams County
7
0.058 Sq.
Miles

Site 8


Selected Location 8
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
0.058 Sq. Miles
7
State Rte 247
Seaman


Site 8
East of Winchester
Adams County
8
0.094 Sq.
Miles

Site 9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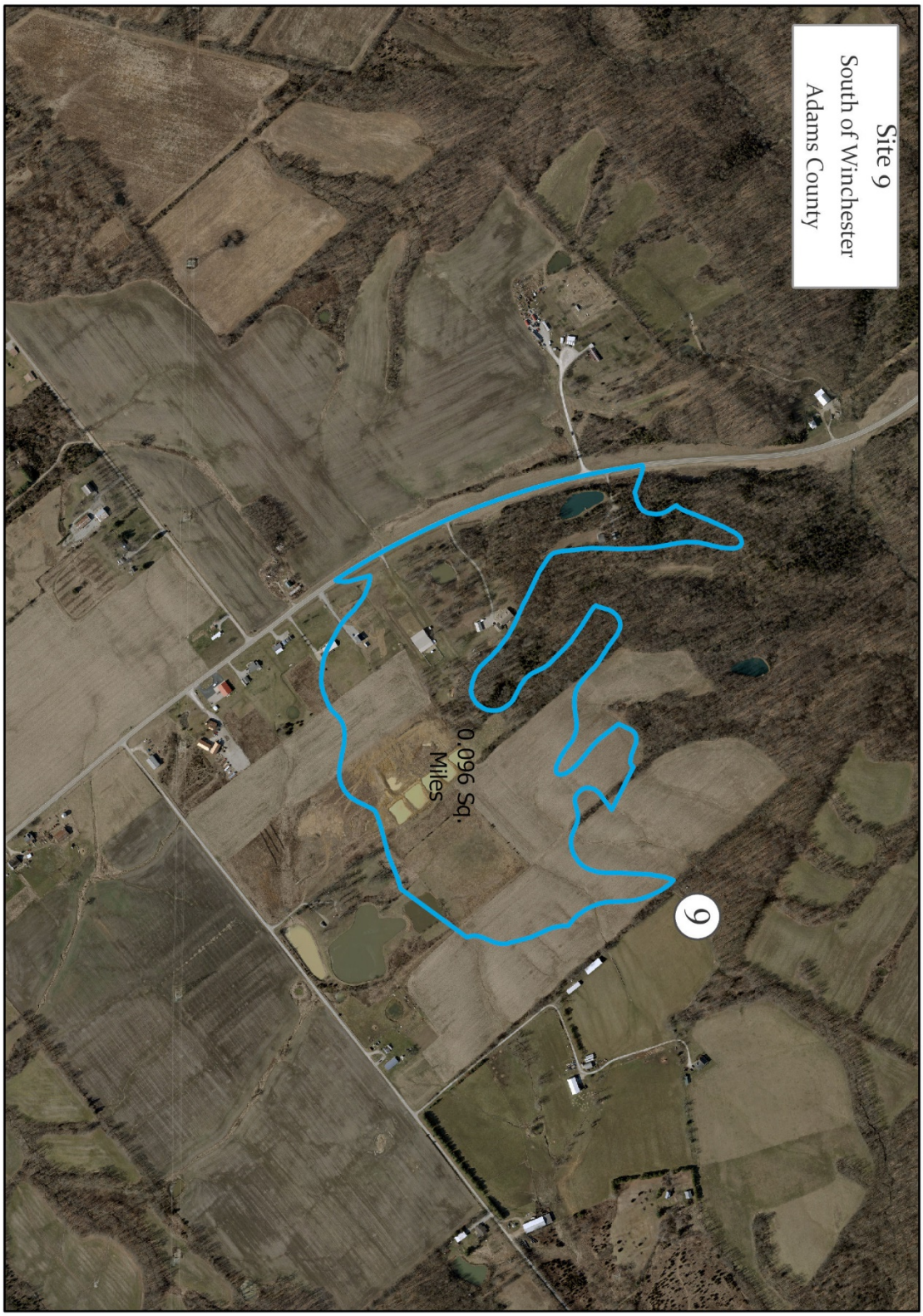
Adams County Border
Major Roads
ODNR Lands
Adams Population Centers
Industrial Criteria Areas
County Road Inventory
Agriculture/Recreation
Residential/light Industrial/Commercial
Ag., Rec., Low-Den. Residential
Industrial Parks
Restricted
National Register Boundaries
Edge of Appalachia
ARC of Appalachia
Identified Locations
State Rte 136
0.096 Sq. Miles
9


Site 9
South of Winchester
Adams County
0.096 Sq. Miles
9