TETRA TECH

April 28, 2015

Ms. Susan Pierce
Director/Deputy SHPO
West Virginia Division of Culture and History
1900 Kanawha Boulevard East
Charleston, West Virginia 25305

Subject: **Mountain Valley Pipeline Project**
Request for Review and Comment under Section 106 of NHPA
Work Plan Amendment 2
Indirect Effects APE

Dear Ms. Pierce,

On behalf of Mountain Valley Pipeline, LLC, a joint venture between affiliates of EQT Corporation, NextEra Energy, Inc., WGL Holdings, Inc., and Vega Energy Partners, Ltd., Tetra Tech requests your review under Section 106 of the National Historic Preservation Act (NHPA), 1966, as amended, of the attached Mountain Valley Pipeline Project, Cultural Resources, West Virginia Work Plan, Amendment 2. This attachment represents an amendment to the work plan originally presented in October 2014 and approved by your office on November 21, 2014.

As presented in the October 2014 work plan, Tetra Tech proposed to develop the indirect area of potential effects (APE), in which a Historic Architectural and Resources Survey would take place, in consultation with the West Virginia Division of Culture and History (WVDCH). Based on subsequent conversations with WVDCH staff in January 2015, March 2015, and April 2015, and as stated in our October 2014 work plan, Tetra Tech has developed an indirect APE for the Historic Architectural Survey based on the historic context developed for the project, the distribution of previously recorded historic resources, and a viewshed analysis of above ground project components.

As per your request the public outreach efforts of the MVP project team and FERC to afford the public the opportunity to comment on historic resources is summarized herein.

MVP hosted 16 community outreach open houses. These were held in each county through which the Project traverses. Each meeting was advertised in multiple local newspapers and the notices appeared at least twice for each open house. At each open house, MVP set up elaborate information stations including Safety, Construction, Wildlife Habitat Council, Environmental & Permitting, General Information about MVP, and a Welcome/sign-in table. There also was always a table for FERC staff to answer questions about the FERC process. At each open house, a cultural resources professional was present to respond to any questions or comments about cultural issues.

Past Meetings

The meeting schedule was as follows:

Dec 15, 2014	Gretna, VA	Pittsylvania County
Dec 16, 2014	Rocky Mount, VA	Franklin County
Dec 17 2014	Salem, VA	Roanoke County
Dec 18, 2014	Blacksburg, VA	Montgomery County
Jan 12, 2015	Pearlsburg, VA	Giles County
Jan 13, 2015	Linside, WV	Monroe County
Jan 14, 2015	Hinton, WV	Summers County
Jan 15, 2015	Rupert, WV	Greenbrier County
Jan 20, 2015	Summersville, WV	Nicholas County
Jan 21, 2015	Webster Springs, WV	Webster County
Jan 22, 2015	Burnsville, WV	Braxton County
Jan 26, 2015	Jane Lew, WV	Lewis County
Jan 27, 2015	Clarksburg, WV	Harrison County
Jan 28, 2015	Jacksonburg, WV	Wetzel County
April 6, 2015	Union, WV	Monroe County (2nd mtg in Monroe County)
April 7, 2015	New Castle, VA	Craig County

Schedule of Future Meetings

FERC's Public Scoping Meeting Schedule for MVP (from the Notice of Intent filed by FERC on April 17, 2015 in e-library) is provided below:

May 4, 2015	7:00 PM	James Monroe High School Route 1, Landside, WV 24951
May 5, 2015	7:00 PM	Eastern Montgomery High School 4695 Crozier Road, Elliston, VA 24087
May 7, 2015	7:00 PM	Chatham High School 100 Cavalier Circle, Chatham, VA 24531
May 11, 2015	7:00 PM	Robert C. Byrd Center 992 North Fork Road, Pine Grove, WV 26419
May 12, 2015	7:00 PM	West Virginia University Jackson's Mill 160 WVU Jackson Mill, Weston, WV 26452
May 13, 2015	7:00 PM	Nicholas County High School 30 Grizzly Road, Summerville, WV 26651

MVP and Tetra Tech staff are also reviewing all letters and comments filed with FERC through the e-library system. Some letters have expressed specific concerns about cultural resources and these are all being reviewed and considered.

Tetra Tech requests that you review the attached *AMENDMENT 2 to the CULTURAL RESOURCES WORK PLAN for The Mountain Valley Pipeline Project, WV,* and provide your written concurrence.

Very truly yours,

James T Marine

James T. Marine, RPA
Cultural Resources Lead
Tetra Tech Inc., Pittsburgh PA: Direct: 484-680-9997
james.marine@tetratech.com

Enclosure: Work Plan Amendment 2
Attachment A – USGS Project Location Maps with Previously Recorded Resources.
Attachment B – Viewshed from Compressor Stations with Previously Recorded Resources.
Attachment C – Table of Previously Recorded Resources
Attachment D – Historic Context

cc: S Sparks (Tetra Tech) (no attachments)
M Neylon (EQT) (no attachments)
J Smith (hardcopy with attachments)

TETRA TECH

MOUNTAIN VALLEY PIPELINE PROJECT

Counties of Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Webster, and Wetzel, West Virginia

AMENDMENT 2:
to the

CULTURAL RESOURCES WORK PLAN

for

WEST VIRGINIA

FR # 15-67-MULTI

Prepared for

Mountain Valley PIPELINE LLC

April 2015

TETRA TECH

1.0 Introduction

Mountain Valley Pipeline, LLC (MVP) is a joint venture between affiliates of EQT Corporation, NextEra Energy, Inc., WGL Holdings, Inc., and Vega Energy Partners, Ltd. MVP proposes to construct a natural gas pipeline (the Project) that would extend from the existing Equitrans transmission system in Wetzel County, West Virginia to Transcontinental Gas Pipeline Company's Zone 5 compressor station 165 in Pittsylvania County, Virginia. The Project will be approximately 300 miles, of which 188.5 miles will be located in West Virginia. Project will include the construction of four new compressor stations along the pipeline route, three of which, will be located in West Virginia. Staging areas for construction equipment will be sited along the Project corridor, although at the current stage of design, no specific locations have been selected.

As presented in the October 2014 work plan, Tetra Tech proposed to develop the indirect area of potential effects (APE), in which a Historic Architectural Survey would take place, in consultation with the West Virginia Division of Culture and History (WVDCH). Based on subsequent conversations with WVDCH, and as stated in our October 2014 work plan, Tetra Tech has developed an indirect APE for the historic architectural survey based on the historic context developed for the project, the distribution of previously recorded historic resources, and a viewshed analysis of above ground project components.

2.0 Amendment to Historic Architecture Survey Design

Indirect Effects APE for Compressor Stations

Following several phone conversations between WVDCH staff and the Project's cultural resources team, Tetra Tech created, in addition to standard USGS project mapping (Attachment A), bare earth viewshed maps for each compressor station showing areas in the Project vicinity that, according to viewshed models, may have views of the Project (Attachment B). This mapping incorporates previously recorded cultural resources data located within one mile of the Project centerline.

Viewshed maps were created in ARC GIS using engineering specifications (58 feet maximum height) and a USGS digital elevation model with a contour interval of 10 feet. Based on the

viewshed mapping, the remote setting of the project, and the historic context developed for the Project (Attachment D), Tetra Tech proposes that the indirect APE for the compressor station locations be defined as a 0.5-mile radius around each compressor station.

Indirect APE for Linear Pipeline Corridor

Tetra Tech recognizes the limits of creating a viewshed model using the technique described above for the compressor stations in determining an indirect APE for the linear pipeline corridor. As there is no precise and practical method for creating an accurate viewshed model for a pipeline corridor in deeply dissected, heavily wooded terrain, Tetra Tech proposes that the APE for the 188.5-mile-long pipeline corridor be defined as 0.25-mile on either side of the Project centerline. Tetra Tech acknowledges that resources located outside of the arbitrarily defined indirect APE may have a view of the cleared pipeline corridor, in particular, those with "ridge views" of the corridor, or views of the pipeline corridor as it descends a ridge (J. Brennan, 5 January 2015). However, this scenario is unlikely to occur beyond the proposed 0.50-mile indirect (0.25-mile on either side) APE. Given the density of vegetation and the deeply dissected terrain; ridge views would likely be obstructed.

Methods for Recording Historic Properties in Project APE

Architectural and historical resources within the indirect APE of MVP (including 381 previously recorded resources—Attachment C) will be systematically surveyed according to *Guidelines for Phase I Surveys, Phase II Testing, Phase III Mitigation and Cultural Resource Reports* (West Virginia Division of Culture and History, Historic Preservation Unit: 1995); *Archeology and Preservation: Secretary of the Interior's Standards and Guidelines* (48 FR 44716-44742); *National Register Bulletin 15—How to Apply the National Register Criteria for Evaluation* (National Park Service 1998); and *Cultural Resource Survey Guidelines for Review Projects* (West Virginia Division of Culture and History- Historic Preservation Unit 1996). The field survey will identify architectural and historical resources that are potentially eligible for NRHP listing. Pursuant to WVDCH guidelines, these resources, including primary buildings and any contributing outbuildings, will be digitally photographed, and recorded on West Virginia Historic Property Inventory (HPI) forms. A Tetra Tech architectural historian will record the architectural style, condition, and important features of each resource and note any major changes or alterations. Finally, each of the resources will be mapped on USGS quadrangle maps of the project area.

Architectural and historical resources surveyed by Tetra Tech will be evaluated for their significance according to NRHP criteria, the historic context developed for this Project (Attachment D), and guidelines contained in *National Register Bulletin 15—How to Apply the National Register Criteria for Evaluation* (National Park Service 1998). In evaluating the surveyed architectural and historical resources, the architectural integrity of each will be assessed (i.e. location, design, setting, materials, workmanship, feeling, and association).

ATTACHMENT A

USGS PROJECT LOCATION MAPS WITH
LOCATIONS OF PREVIOUSLY RECORDED CULTURAL RESOURCES
AND PROPOSED INDIRECT APE

Mountain Valley Pipeline Project

NAD 1983 UTM 17N

1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

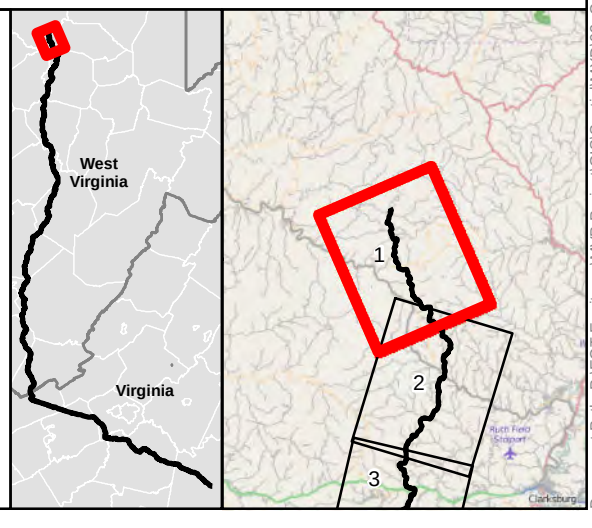
Wetzel, Harrison
Page 1 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

NAD 1983 UTM 17N

1:48,000

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

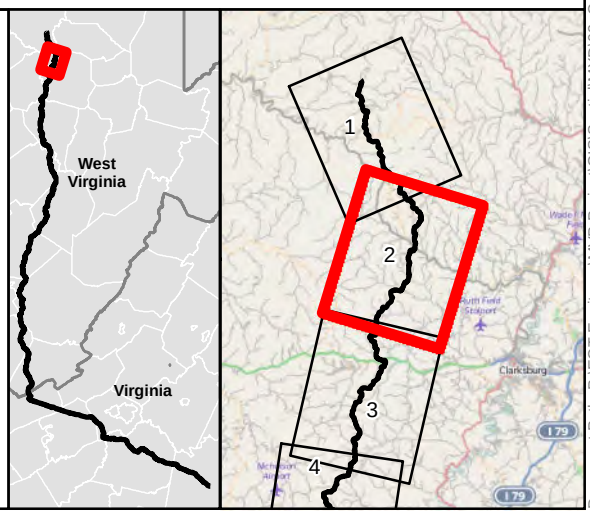
Harrison
Page 2 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

NAD 1983 UTM 17N

1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

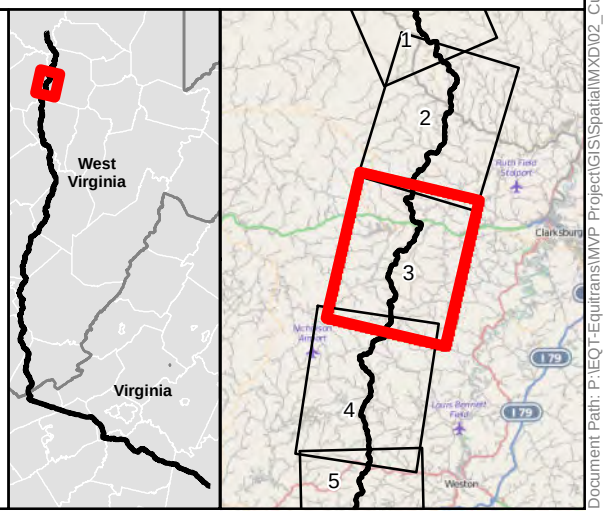
Harrison, Doddridge
Page 3 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

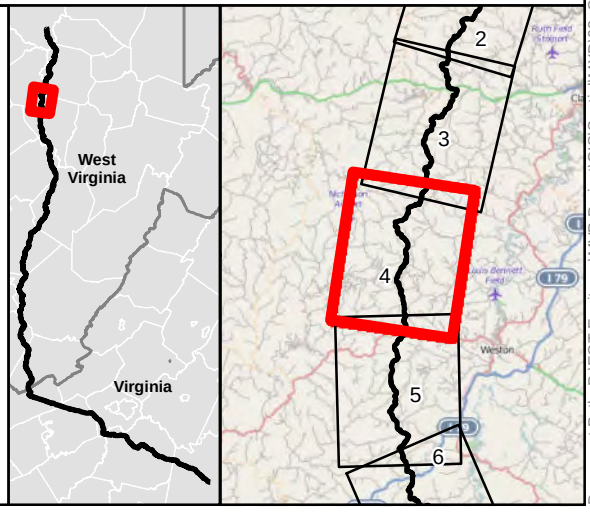
Harrison, Doddridge, Lewis

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

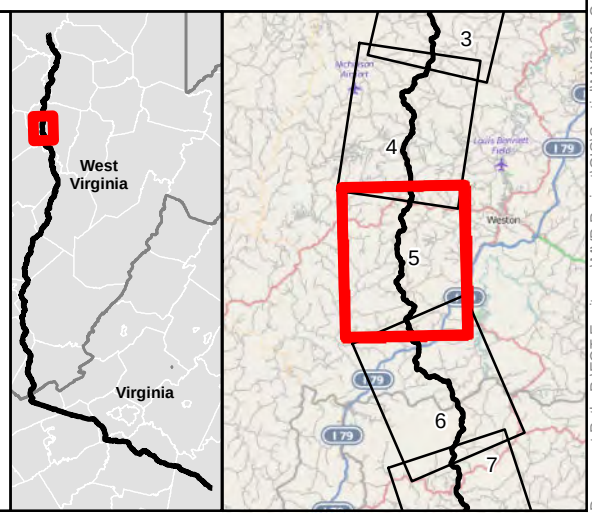
Lewis

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

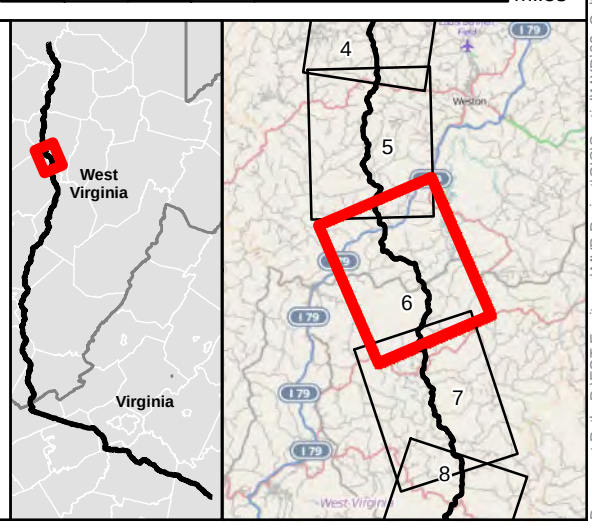
Lewis, Braxton
Page 6 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

NAD 1983 UTM 17N

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

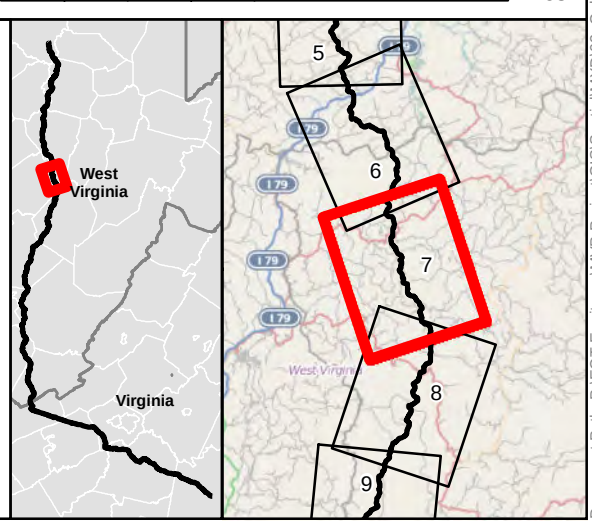
Braxton, Webster
Page 7 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

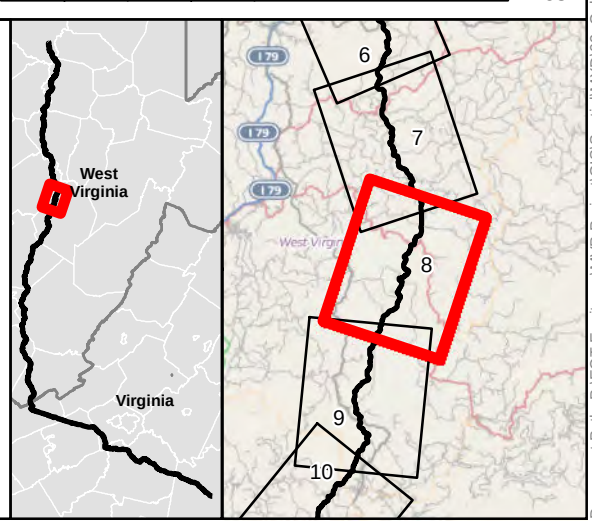
Webster
Page 8 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

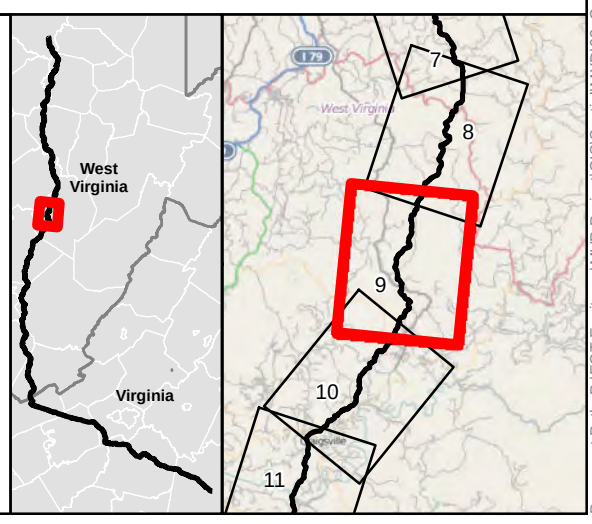
Webster
Page 9 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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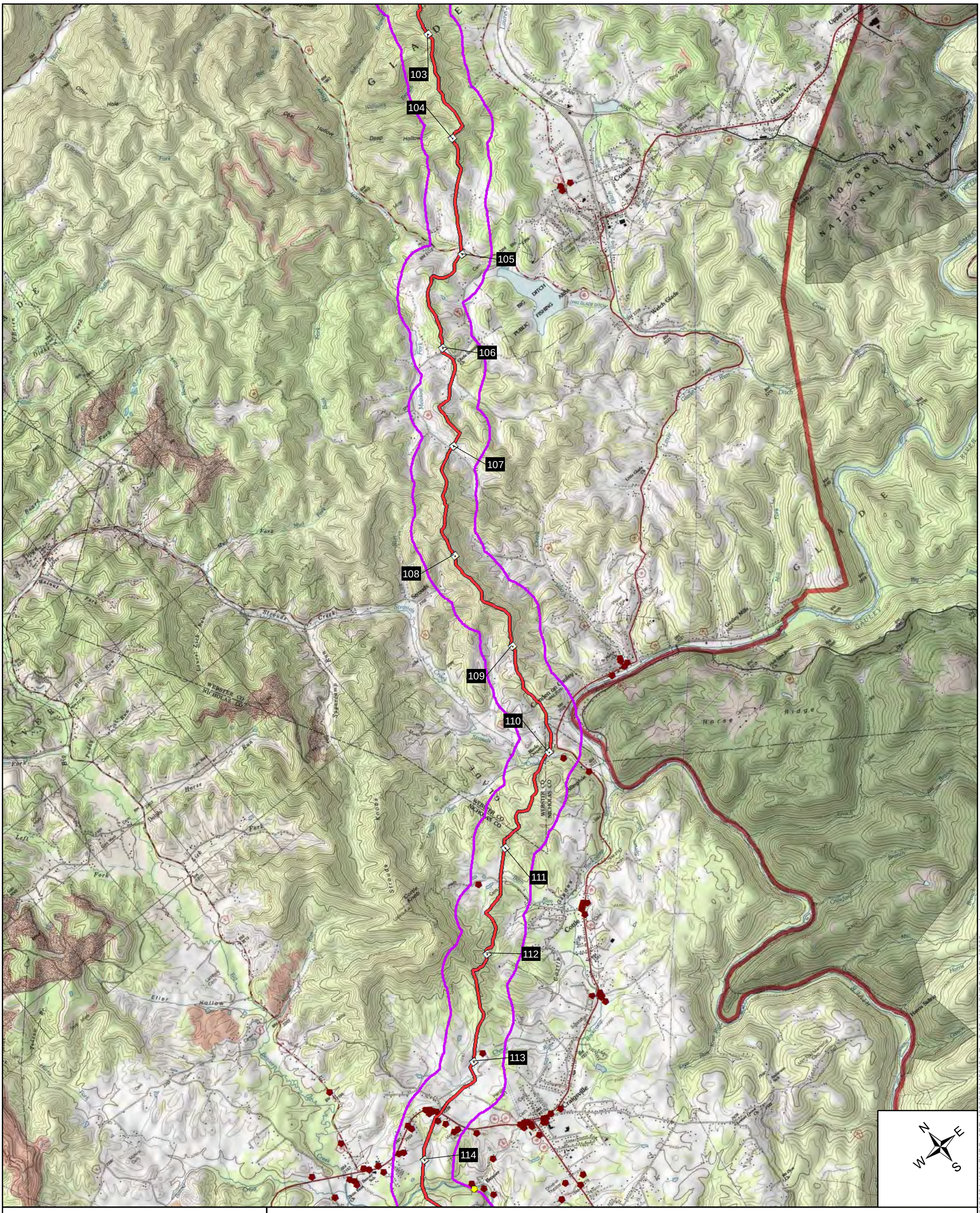

Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

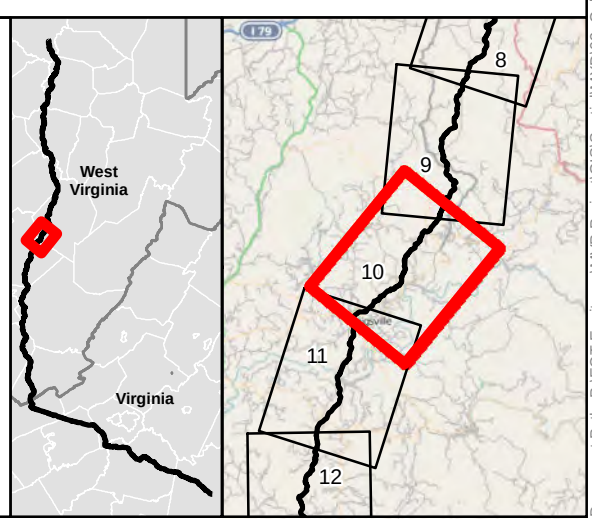
Webster, Nicholas
Page 10 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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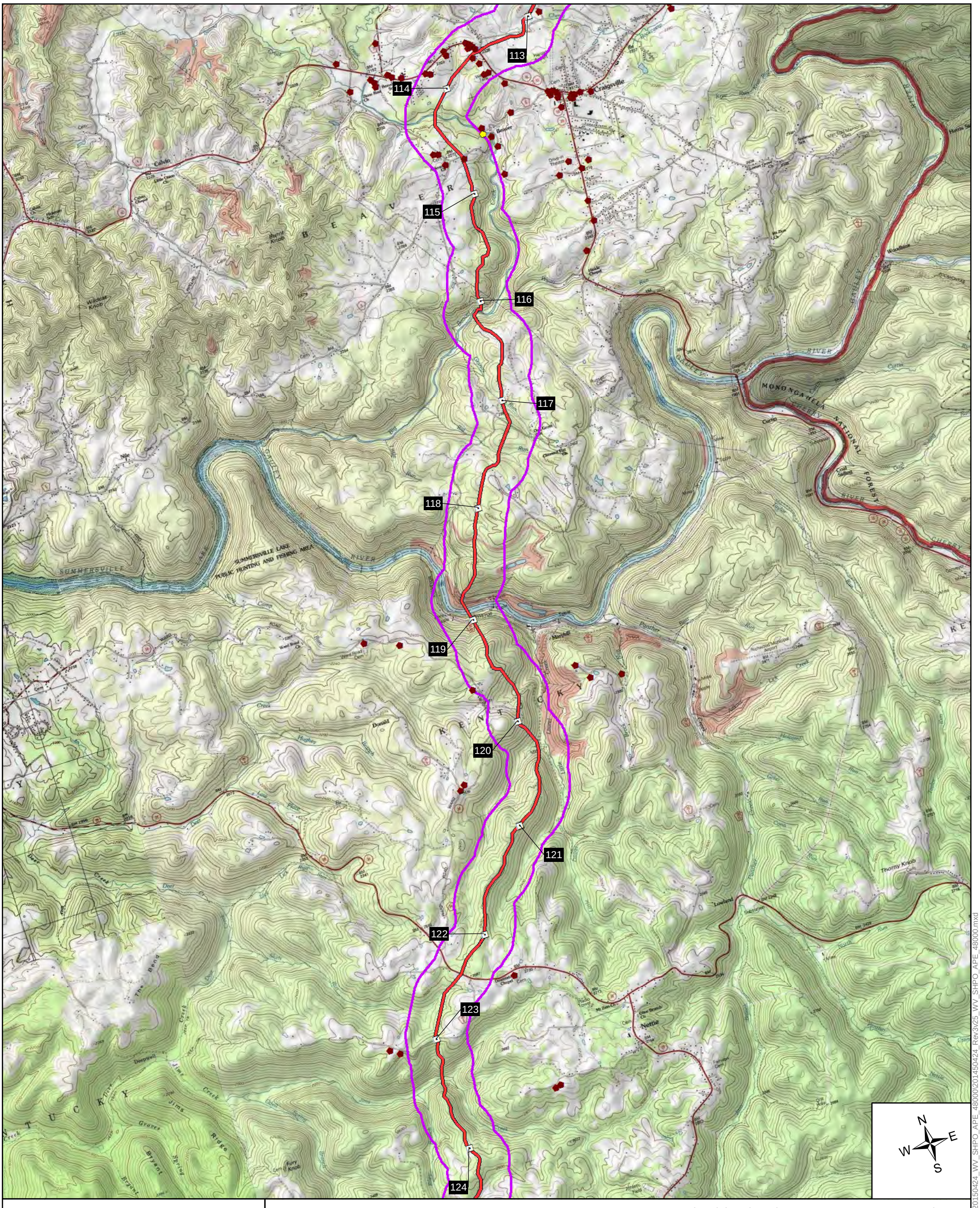

Mountain Valley Pipeline Project

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Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

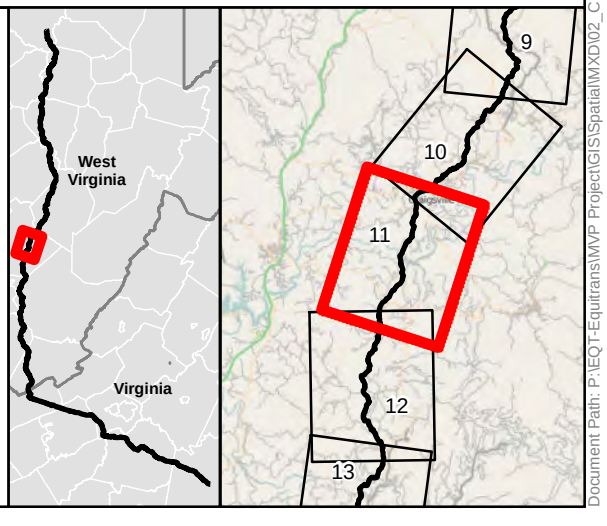
Nicholas
Page 11 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Snow Hill
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Coggins Knob
White Buck Knob
Beech Knob
Rocky Ridge
Bearhole Ridge
Shawver Ridge
Bare Ridge
Barn Ridge
The Divide
Davis Ridge
Hurricane Ridge
Little Trip Ridge
Coal Ridge
Court Ridge
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Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

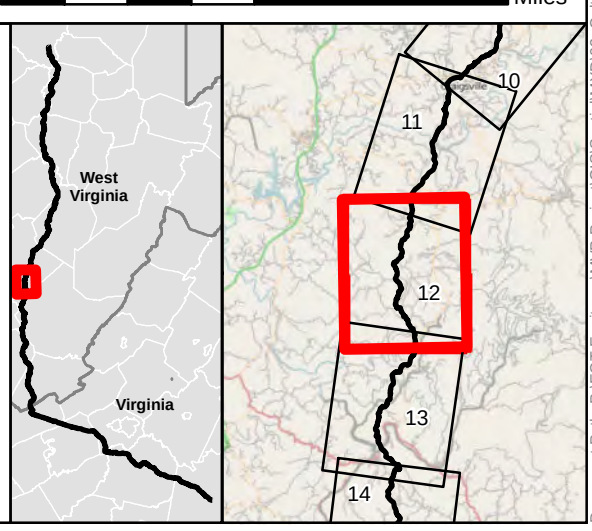
Nicholas, Greenbrier
Page 12 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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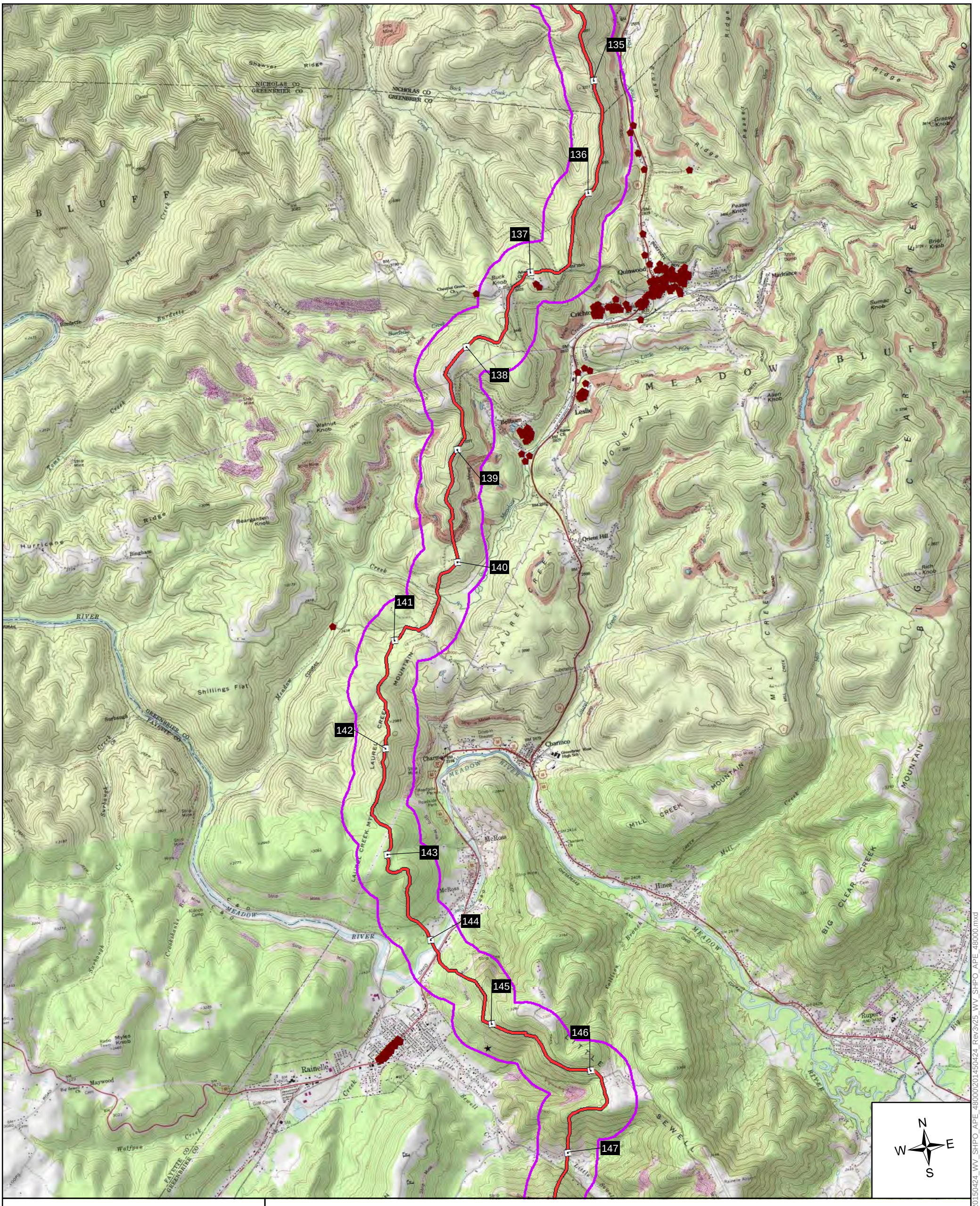

Mountain Valley Pipeline Project

NAD 1983 UTM 17N

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0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

Nicholas, Greenbrier
Page 13 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Civil War
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)

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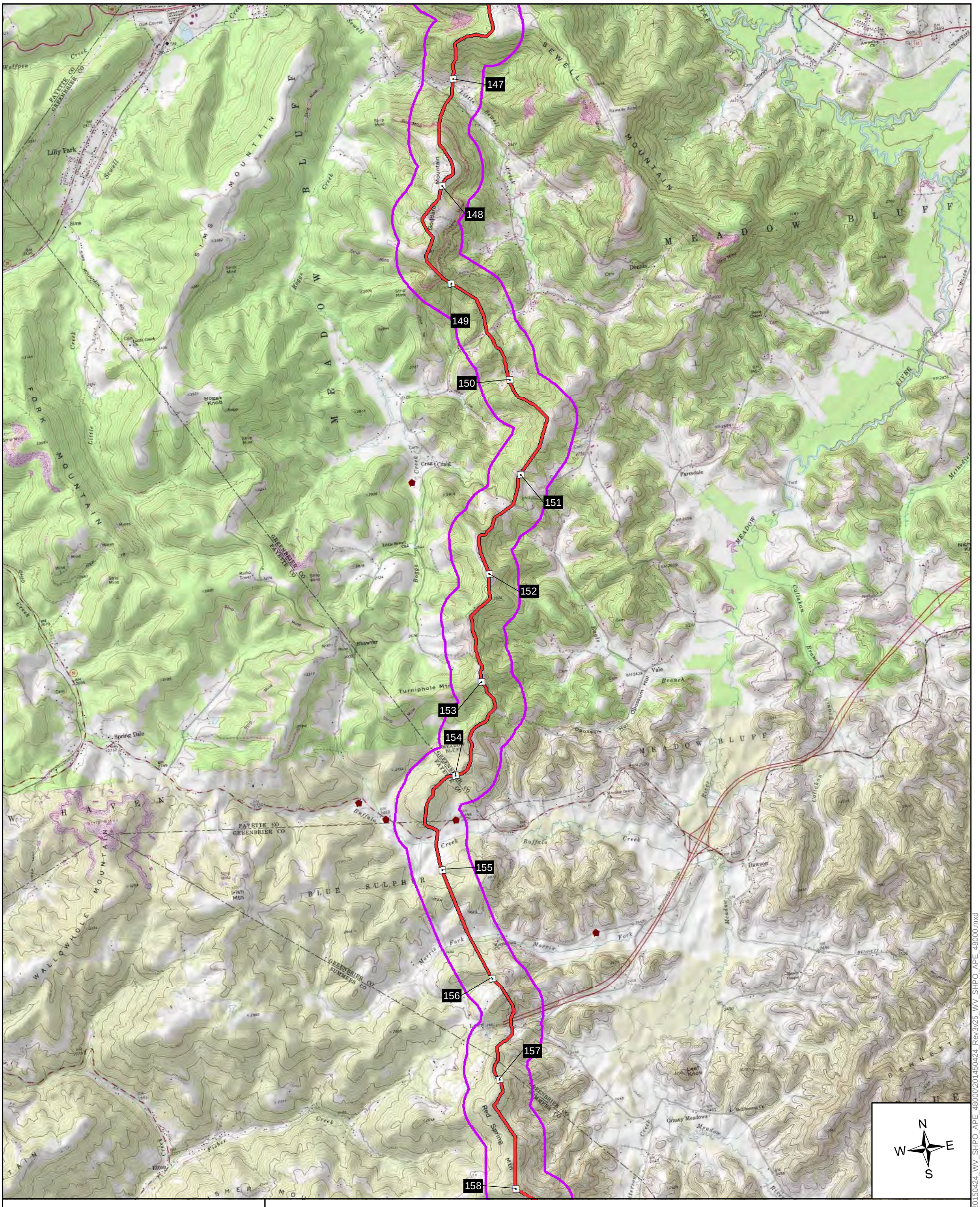


Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

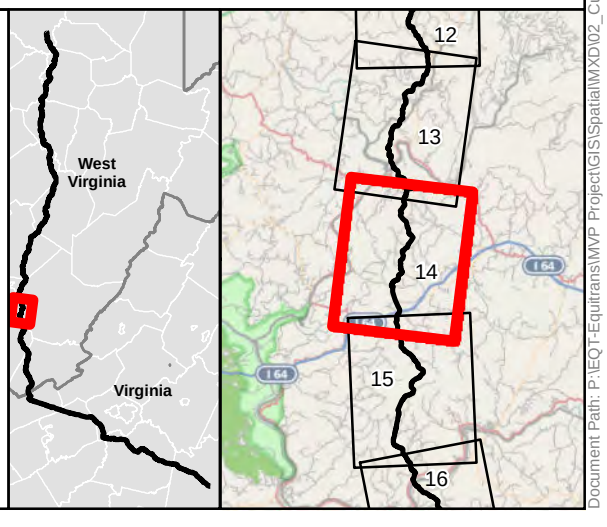
Greenbrier, Fayette, Summers

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

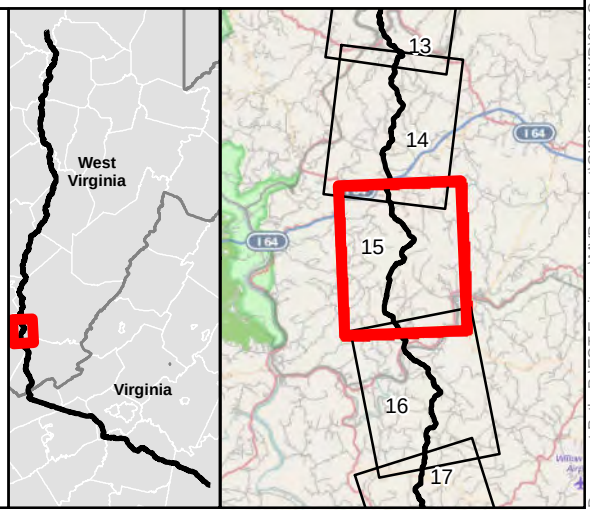
Greenbrier, Summers
Page 15 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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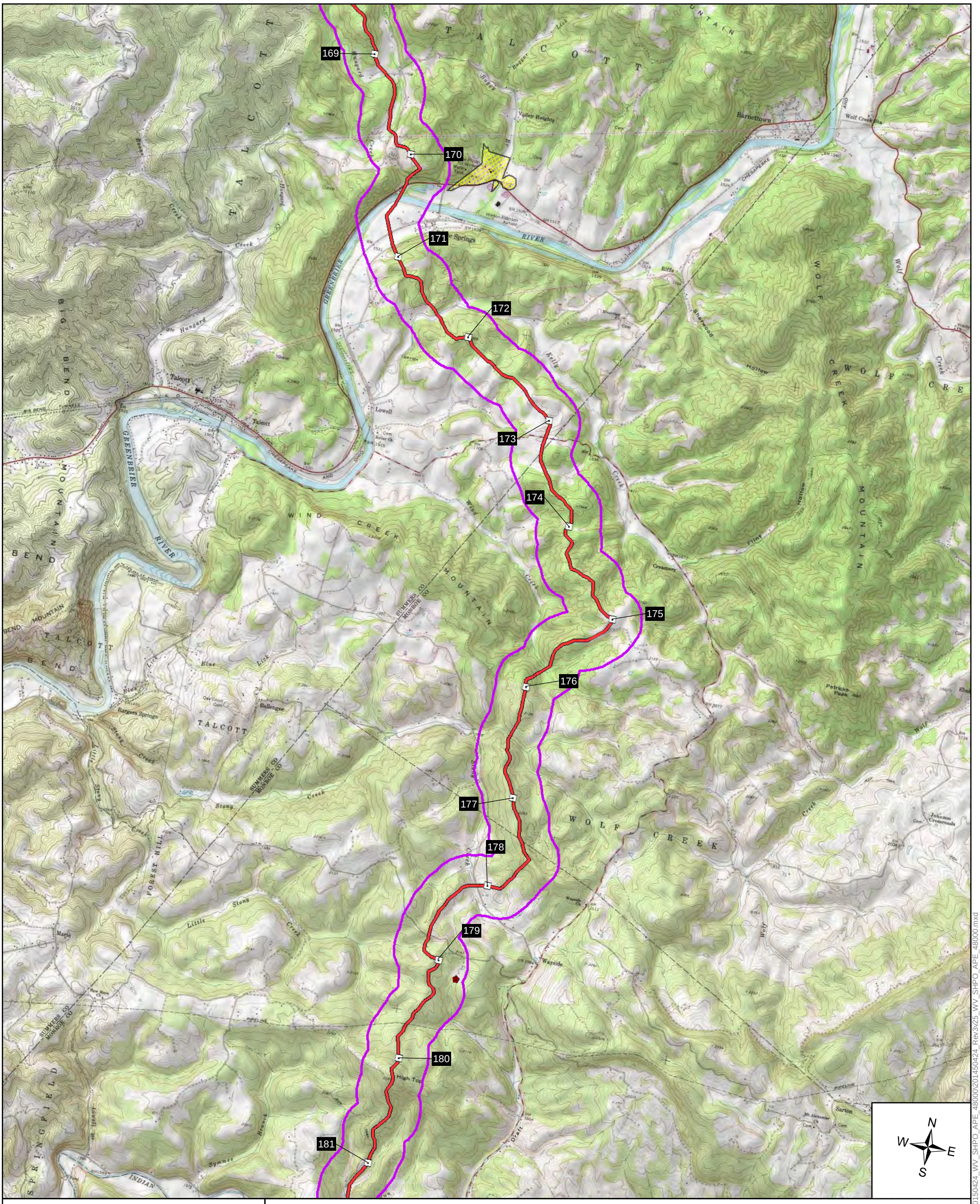


Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

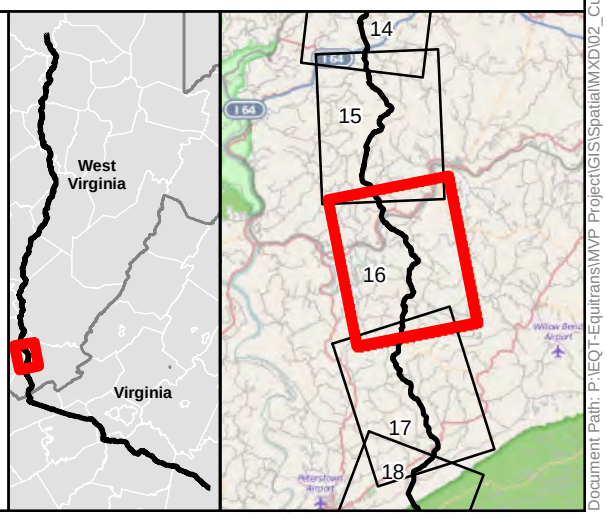
Summers, Monroe
Page 16 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- National Register
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

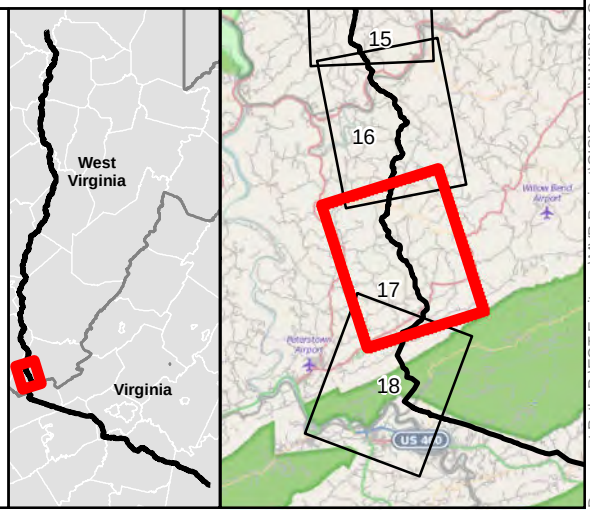
Monroe
Page 17 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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192
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Mountain Valley Pipeline Project

NAD 1983 UTM 17N 1:48,000

0 0.25 0.5 0.75 1 2 Miles

Mountain Valley PIPELINE

Attachment A
USGS Project Location Maps with Previously Recorded Cultural Resources and Proposed Indirect Area of Potential Effect

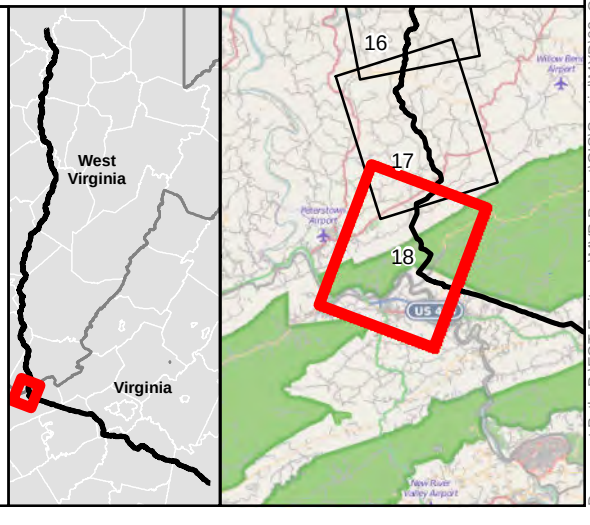
Monroe
Page 18 of 18

April 2015

Data Sources: West Virginia Division of Cultural and History 2014, ESRI Streaming Data 2014, ESRI v10.

Legend

- Architecture
- Milepost
- Proposed Route
- Proposed Indirect Area of Potential Effect (.25mi on either side of the centerline)



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TETRA TECH

ATTACHMENT B

VIEWSHED FROM COMPRESSOR STATIONS AND
LOCATIONS OF PREVIOUSLY RECORDED CULTURAL RESOURCES

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

Bare Earth Viewshed Model with Historic and Architectural Resources Survey Area

Bradshaw Site

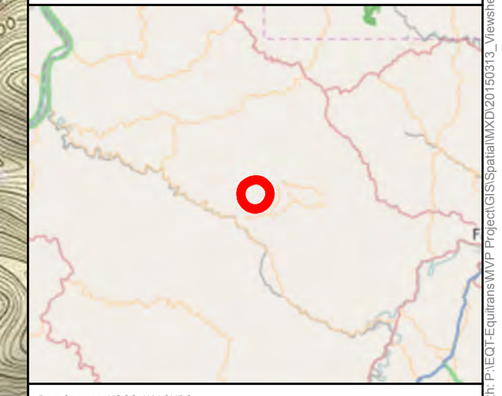
Wetzel County

USGS 7.5' Quad(s): Big Run

MARCH 2015

- Survey Area for Historic and Architectural Resources: 0.5 mile Radius
- Compressor Station
- Compressor Station Survey Area
- Visible Area (Bare Earth Viewshed)
- Proposed Route Centerline

NOTE: Bare earth viewshed does not factor in obstructions in visibility caused by vegetation. Viewsheds were run on the ompressor station survey area extent with an assumed height of 58' to match the tallest proposed structure.



Data Sources: USGS, WV SHPO.

1:18,600 NAD 1983 UTM 17N

0 0.275 0.55 1.1 1.65 2.2 Miles

Document Path: P:\EQT-Equitrans\MVP Project\GIS\SpatialMXD\20150313_Viewsheds_Compressor_Stations\Compressor_Stations_Bare_Earth_Viewshed_Op5mi_Survey_Area_20150325.mxd

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

Bare Earth Viewshed Model with Historic and Architectural Resources Survey Area

Harris Site

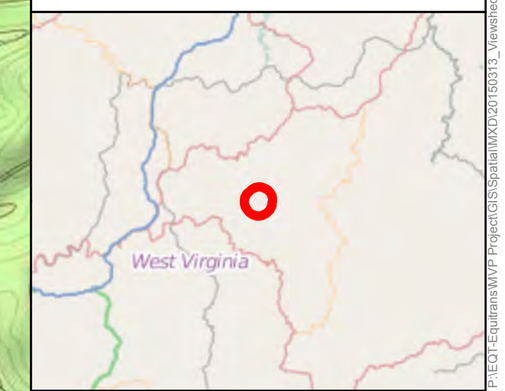
Braxton County

USGS 7.5' Quad(s): Newville and Hacker Valley

MARCH 2015

- Survey Area for Historic and Architectural Resources: 0.5 mile Radius
- Compressor Station
- Compressor Station Survey Area
- Visible Area (Bare Earth Viewshed)
- Proposed Route Centerline

NOTE: Bare earth viewshed does not factor in obstructions in visibility caused by vegetation. Viewsheds were run on the ompressor station survey area extent with an assumed height of 58' to match the tallest proposed structure.



Data Sources: USGS, WV SHPO.

N

1:18,480

NAD 1983 UTM 17N

0 0.275 0.55 1.1 1.65 2.2 Miles

Document Path: P:\EQT-Equitrans\MVP Project\GIS\Spatial\MXD\20150313_Viewsheds_Compressor_Stations\Compressor_Stations_Bare_Earth_Viewshed_Op5mi_Survey_Area_20150325.mxd

Mountain Valley Pipeline Project

Mountain Valley PIPELINE

Bare Earth Viewshed Model with Historic and Architectural Resources Survey Area

Stallworth Site

Fayette and Greenbrier Counties

USGS 7.5' Quad(s): Rainelle, Rupert, Meadow Bridge, and Dawson

MARCH 2015

Survey Area for Historic and Architectural Resources: 0.5 mile Radius

Compressor Station

Compressor Station Survey Area

Visible Area (Bare Earth Viewshed)

Proposed Route Centerline

Previously Recorded Historic Resources

Architecture

NOTE: Bare earth viewshed does not factor in obstructions in visibility caused by vegetation. Viewsheds were run on the ompressor station survey area extent with an assumed height of 58' to match the tallest proposed structure.

Data Sources: USGS, WV SHPO.

1:17,680 NAD 1983 UTM 17N

0 0.275 0.55 1.1 1.65 2.2 Miles

Document Path: P:\EQT-Equitrans\MVP Project\GIS\SpatialMXD\20150313_Viewsheds_Compressor_Stations\Compressor_Stations_Bare_Earth_Viewshed_Op5mi_Survey_Area_20150325.mxd

ATTACHMENT C

TABULAR SUMMARY OF PREVIOUSLY RECORDED RESOURCES
LOCATED WITHIN ONE MILE OF PROJECT

Table C-1
Overview of Previously Recorded Architectural Resources within 1-mile of the Project Centerline.

Number of Resources	NRHP Status or Internal WVDCH Rating
351	Not Evaluated or No Internal Rating
15	Not NRHP-Eligible
5	Contributing Resource to Potential Historic District
4	Considered NRHP-Eligible
5	NRHP-Listed
1	Civil War Site
Total: 381	

Table C-2
Previously Recorded Architectural Resources within the Proposed Indirect APE
0.25 –mile either side of the Project Centerline.
N=41

Resource ID	County	NRHP Status/Internal WVDCH Rating
BX-0001-0085/Fall Run U.M.C.	Braxton	CONTRIBUTING-HISTORIC DISTRICT
Civil War - Little Sewell Mountain	Greenbrier	NO INTERNAL RATING
FA-0002-0042/Residence	Fayette	CONTRIBUTING-HISTORIC DISTRICT
GB-1006	Greenbrier	NO INTERNAL RATING
GB-1007	Greenbrier	NO INTERNAL RATING
GB-1177	Greenbrier	NO INTERNAL RATING
HS-049	Harrison	NOT NRHP-ELIGIBLE
HS-0495-0003	Harrison	NO INTERNAL RATING
HS-0495-0005	Harrison	NO INTERNAL RATING
HS-0495-0006	Harrison	NO INTERNAL RATING
HS-0495-0015	Harrison	NO INTERNAL RATING
HS-0495-0016	Harrison	NO INTERNAL RATING
HS-0589	Harrison	NO INTERNAL RATING
HS-0593	Harrison	NO INTERNAL RATING
HS-0605	Harrison	NO INTERNAL RATING
HS-0609	Harrison	NO INTERNAL RATING
HS-0614	Harrison	NO INTERNAL RATING
LE-0021-0002	Lewis	NOT NRHP-ELIGIBLE
LE-0122	Lewis	NOT NRHP-ELIGIBLE
NR# 85001583/ St. Bernard Church and Cemetery	Lewis	NRHP-LISTED
ME-0032	Monroe	NOT NRHP-ELIGIBLE
ME-0298	Monroe	NOT NRHP-ELIGIBLE
NI-0002-0102	Nicholas	NO INTERNAL RATING
NI-0025-0034	Nicholas	NO INTERNAL RATING
NI-0025-0035	Nicholas	NO INTERNAL RATING
NI-0025-0047	Nicholas	NO INTERNAL RATING
NI-0025-0064	Nicholas	NO INTERNAL RATING
NI-0025-0065	Nicholas	NO INTERNAL RATING
NI-0025-0067	Nicholas	NO INTERNAL RATING
NI-0025-0068	Nicholas	NO INTERNAL RATING
NI-0025-0077	Nicholas	NO INTERNAL RATING
NI-0025-0078	Nicholas	NO INTERNAL RATING
NI-0025-0079	Nicholas	NO INTERNAL RATING
NI-0025-0080	Nicholas	NO INTERNAL RATING

Table C-2 Cont. Resource ID	County	NRHP Status/Internal WVDCH Rating
NI-0025-0081	Nicholas	NO INTERNAL RATING
NI-0025-0082	Nicholas	NO INTERNAL RATING
NI-0025-0083	Nicholas	NO INTERNAL RATING
NI-0025-0084	Nicholas	NO INTERNAL RATING
NI-0025-0085	Nicholas	NO INTERNAL RATING
NI-0025-0086	Nicholas	NO INTERNAL RATING
NI-0025-0087	Nicholas	NO INTERNAL RATING
NI-0025-0088	Nicholas	NO INTERNAL RATING
NI-0025-0092	Nicholas	NO INTERNAL RATING
NI-0026-0199	Nicholas	NO INTERNAL RATING
NI-0026-0200	Nicholas	NO INTERNAL RATING
NI-0027-0070	Nicholas	NO INTERNAL RATING
NI-0072	Nicholas	NO INTERNAL RATING
NR# 98001430/ Weston & Gauley Bridge Turnpike	Braxton and Lewis	NRHP-LISTED

Table C-3
Previously Recorded Architectural Resources within 1-mile of the Project Centerline.
Total = 381

Resource ID	County	NRHP Status/Internal WVDCH Rating
BX-0001-0085/ Fall Run U.M.C.	Braxton	CONTRIBUTING-HISTORIC DISTRICT
BX-0001-0086	Braxton	NOT NRHP-ELIGIBLE
BX-0001-0087/ Residence	Braxton	CONTRIBUTING-HISTORIC DISTRICT
NR# 98001430/ Weston & Gauley Bridge Turnpike	Braxton and Lewis	NHRP-LISTED
DO-0041	Doddridge	NO INTERNAL RATING
DO-0042	Doddridge	NO INTERNAL RATING
DO-0043	Doddridge	NO INTERNAL RATING
FA-0002-0040/ Residence	Fayette	CONSIDERED NRHP-ELIGIBLE
FA-0002-0041/ Residence	Fayette	CONTRIBUTING-HISTORIC DISTRICT
FA-0002-0042/ Residence	Fayette	CONTRIBUTING-HISTORIC DISTRICT
GB-0046-000/ Bank of Quinwood	Greenbrier	CONTRIBUTING-HISTORIC DISTRICT
GB-0046-0002	Greenbrier	NOT NRHP-ELIGIBLE
GB-0051	Greenbrier	NO INTERNAL RATING
GB-0952	Greenbrier	NO INTERNAL RATING
GB-0953	Greenbrier	NO INTERNAL RATING
GB-0954	Greenbrier	NO INTERNAL RATING
GB-0955	Greenbrier	NO INTERNAL RATING
GB-0955	Greenbrier	NO INTERNAL RATING
GB-0957	Greenbrier	NO INTERNAL RATING
GB-0958	Greenbrier	NO INTERNAL RATING
GB-0959	Greenbrier	NO INTERNAL RATING
GB-0960	Greenbrier	NO INTERNAL RATING
GB-0961	Greenbrier	NO INTERNAL RATING
GB-0962	Greenbrier	NO INTERNAL RATING
GB-0963	Greenbrier	NO INTERNAL RATING
GB-0964	Greenbrier	NO INTERNAL RATING
GB-0965	Greenbrier	NO INTERNAL RATING
GB-0966	Greenbrier	NO INTERNAL RATING
GB-0966	Greenbrier	NO INTERNAL RATING
GB-0967	Greenbrier	NO INTERNAL RATING
GB-0968	Greenbrier	NO INTERNAL RATING
GB-0969	Greenbrier	NO INTERNAL RATING
GB-0970	Greenbrier	NO INTERNAL RATING
GB-0971	Greenbrier	NO INTERNAL RATING
GB-0972	Greenbrier	NO INTERNAL RATING
GB-0973	Greenbrier	NO INTERNAL RATING
GB-0974	Greenbrier	NO INTERNAL RATING
GB-0975	Greenbrier	NO INTERNAL RATING
GB-0976	Greenbrier	NO INTERNAL RATING
GB-0977	Greenbrier	NO INTERNAL RATING
GB-0978	Greenbrier	NO INTERNAL RATING
GB-0979	Greenbrier	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
GB-1006	Greenbrier	NO INTERNAL RATING
GB-1007	Greenbrier	NO INTERNAL RATING
GB-1008	Greenbrier	NO INTERNAL RATING
GB-1009	Greenbrier	NO INTERNAL RATING
GB-1010	Greenbrier	NO INTERNAL RATING
GB-1011	Greenbrier	NO INTERNAL RATING
GB-1012	Greenbrier	NO INTERNAL RATING
GB-1013	Greenbrier	NO INTERNAL RATING
GB-1014	Greenbrier	NO INTERNAL RATING
GB-1015	Greenbrier	NO INTERNAL RATING
GB-1016	Greenbrier	NO INTERNAL RATING
GB-1017	Greenbrier	NO INTERNAL RATING
GB-1018	Greenbrier	NO INTERNAL RATING
GB-1019	Greenbrier	NO INTERNAL RATING
GB-1020	Greenbrier	NO INTERNAL RATING
GB-1021	Greenbrier	NO INTERNAL RATING
GB-1023	Greenbrier	NO INTERNAL RATING
GB-1024	Greenbrier	NO INTERNAL RATING
GB-1025	Greenbrier	NO INTERNAL RATING
GB-1026	Greenbrier	NO INTERNAL RATING
GB-1027	Greenbrier	NO INTERNAL RATING
GB-1028	Greenbrier	NO INTERNAL RATING
GB-1030	Greenbrier	NO INTERNAL RATING
GB-1031	Greenbrier	NO INTERNAL RATING
GB-1032	Greenbrier	NO INTERNAL RATING
GB-1033	Greenbrier	NO INTERNAL RATING
GB-1034	Greenbrier	NO INTERNAL RATING
GB-1035	Greenbrier	NO INTERNAL RATING
GB-1036	Greenbrier	NO INTERNAL RATING
GB-1037	Greenbrier	NO INTERNAL RATING
GB-1038	Greenbrier	NO INTERNAL RATING
GB-1039	Greenbrier	NO INTERNAL RATING
GB-1040	Greenbrier	NO INTERNAL RATING
GB-1042	Greenbrier	NO INTERNAL RATING
GB-1043	Greenbrier	NO INTERNAL RATING
GB-1044	Greenbrier	NO INTERNAL RATING
GB-1045	Greenbrier	NO INTERNAL RATING
GB-1046	Greenbrier	NO INTERNAL RATING
GB-1047	Greenbrier	NO INTERNAL RATING
GB-1048	Greenbrier	NO INTERNAL RATING
GB-1049	Greenbrier	NO INTERNAL RATING
GB-1050	Greenbrier	NO INTERNAL RATING
GB-1051	Greenbrier	NO INTERNAL RATING
GB-1052	Greenbrier	NO INTERNAL RATING
GB-1053	Greenbrier	NO INTERNAL RATING
GB-1054	Greenbrier	NO INTERNAL RATING
GB-1055	Greenbrier	NO INTERNAL RATING
GB-1056	Greenbrier	NO INTERNAL RATING
GB-1057	Greenbrier	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
GB-1058	Greenbrier	NO INTERNAL RATING
GB-1059	Greenbrier	NO INTERNAL RATING
GB-1060	Greenbrier	NO INTERNAL RATING
GB-1061	Greenbrier	NO INTERNAL RATING
GB-1062	Greenbrier	NO INTERNAL RATING
GB-1063	Greenbrier	NO INTERNAL RATING
GB-1064	Greenbrier	NO INTERNAL RATING
GB-1065	Greenbrier	NO INTERNAL RATING
GB-1066	Greenbrier	NO INTERNAL RATING
GB-1067	Greenbrier	NO INTERNAL RATING
GB-1068	Greenbrier	NO INTERNAL RATING
GB-1069	Greenbrier	NO INTERNAL RATING
GB-1070	Greenbrier	NO INTERNAL RATING
GB-1071	Greenbrier	NO INTERNAL RATING
GB-1072	Greenbrier	NO INTERNAL RATING
GB-1084	Greenbrier	NO INTERNAL RATING
GB-1087	Greenbrier	NO INTERNAL RATING
GB-1088	Greenbrier	NO INTERNAL RATING
GB-1089	Greenbrier	NO INTERNAL RATING
GB-1090	Greenbrier	NO INTERNAL RATING
GB-1091	Greenbrier	NO INTERNAL RATING
GB-1092	Greenbrier	NO INTERNAL RATING
GB-1093	Greenbrier	NO INTERNAL RATING
GB-1094	Greenbrier	NO INTERNAL RATING
GB-1095	Greenbrier	NO INTERNAL RATING
GB-1096	Greenbrier	NO INTERNAL RATING
GB-1097	Greenbrier	NO INTERNAL RATING
GB-1098	Greenbrier	NO INTERNAL RATING
GB-1099	Greenbrier	NO INTERNAL RATING
GB-1100	Greenbrier	NO INTERNAL RATING
GB-1101	Greenbrier	NO INTERNAL RATING
GB-1102	Greenbrier	NO INTERNAL RATING
GB-1103	Greenbrier	NO INTERNAL RATING
GB-1104	Greenbrier	NO INTERNAL RATING
GB-1105	Greenbrier	NO INTERNAL RATING
GB-1106	Greenbrier	NO INTERNAL RATING
GB-1107	Greenbrier	NO INTERNAL RATING
GB-1108	Greenbrier	NO INTERNAL RATING
GB-1109	Greenbrier	NO INTERNAL RATING
GB-1110	Greenbrier	NO INTERNAL RATING
GB-1111	Greenbrier	NO INTERNAL RATING
GB-1112	Greenbrier	NO INTERNAL RATING
GB-1113	Greenbrier	NO INTERNAL RATING
GB-1114	Greenbrier	NO INTERNAL RATING
GB-1115	Greenbrier	NO INTERNAL RATING
GB-1116	Greenbrier	NO INTERNAL RATING
GB-1117	Greenbrier	NO INTERNAL RATING
GB-1118	Greenbrier	NO INTERNAL RATING
GB-1119	Greenbrier	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
GB-1120	Greenbrier	NO INTERNAL RATING
GB-1121	Greenbrier	NO INTERNAL RATING
GB-1122	Greenbrier	NO INTERNAL RATING
GB-1123	Greenbrier	NO INTERNAL RATING
GB-1124	Greenbrier	NO INTERNAL RATING
GB-1125	Greenbrier	NO INTERNAL RATING
GB-1126	Greenbrier	NO INTERNAL RATING
GB-1127	Greenbrier	NO INTERNAL RATING
GB-1128	Greenbrier	NO INTERNAL RATING
GB-1144	Greenbrier	NO INTERNAL RATING
GB-1145	Greenbrier	NO INTERNAL RATING
GB-1146	Greenbrier	NO INTERNAL RATING
GB-1147	Greenbrier	NO INTERNAL RATING
GB-1148	Greenbrier	NO INTERNAL RATING
GB-1149	Greenbrier	NO INTERNAL RATING
GB-1150	Greenbrier	NO INTERNAL RATING
GB-1151	Greenbrier	NO INTERNAL RATING
GB-1152	Greenbrier	NO INTERNAL RATING
GB-1153	Greenbrier	NO INTERNAL RATING
GB-1154	Greenbrier	NO INTERNAL RATING
GB-1155	Greenbrier	NO INTERNAL RATING
GB-1157	Greenbrier	NO INTERNAL RATING
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GB-1159	Greenbrier	NO INTERNAL RATING
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GB-1161	Greenbrier	NO INTERNAL RATING
GB-1162	Greenbrier	NO INTERNAL RATING
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GB-1170	Greenbrier	NO INTERNAL RATING
GB-1171	Greenbrier	NO INTERNAL RATING
GB-1172	Greenbrier	NO INTERNAL RATING
GB-1173	Greenbrier	NO INTERNAL RATING
GB-1177	Greenbrier	NO INTERNAL RATING
GB-1178	Greenbrier	NO INTERNAL RATING
GB-1179	Greenbrier	NO INTERNAL RATING
GB-1180	Greenbrier	NO INTERNAL RATING
GB-1181	Greenbrier	NO INTERNAL RATING
GB-1182	Greenbrier	NO INTERNAL RATING
GB-1187	Greenbrier	NO INTERNAL RATING
GB-1206	Greenbrier	NO INTERNAL RATING
GB-1207	Greenbrier	NO INTERNAL RATING
GB-1208	Greenbrier	NO INTERNAL RATING
GB-1213	Greenbrier	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
GB-1234	Greenbrier	NO INTERNAL RATING
GB-1290	Greenbrier	NO INTERNAL RATING
Little Sewell Mountain	Greenbrier	CIVIL WAR SITE
HS-0464	Harrison	NOT NRHP-ELIGIBLE
HS-049	Harrison	NOT NRHP-ELIGIBLE
HS-0495-0003	Harrison	NO INTERNAL RATING
HS-0495-0004	Harrison	NO INTERNAL RATING
HS-0495-0005	Harrison	NO INTERNAL RATING
HS-0495-0006	Harrison	NO INTERNAL RATING
HS-0495-0007	Harrison	NO INTERNAL RATING
HS-0495-0008	Harrison	NO INTERNAL RATING
HS-0495-0009	Harrison	NO INTERNAL RATING
HS-0495-0010	Harrison	NO INTERNAL RATING
HS-0495-0011	Harrison	NO INTERNAL RATING
HS-0495-0012	Harrison	NO INTERNAL RATING
HS-0495-0013	Harrison	NO INTERNAL RATING
HS-0495-0014	Harrison	NO INTERNAL RATING
HS-0495-0015	Harrison	NO INTERNAL RATING
HS-0495-0016	Harrison	NO INTERNAL RATING
HS-0495-0019	Harrison	NO INTERNAL RATING
HS-0495-0020	Harrison	NO INTERNAL RATING
HS-0495-0021	Harrison	NO INTERNAL RATING
HS-0495-0022	Harrison	NO INTERNAL RATING
HS-0495-0023	Harrison	NO INTERNAL RATING
HS-0495-0024	Harrison	NO INTERNAL RATING
HS-0495-0025	Harrison	NO INTERNAL RATING
HS-0495-0026	Harrison	NO INTERNAL RATING
HS-0495-0057	Harrison	NO INTERNAL RATING
HS-0495-0058	Harrison	NO INTERNAL RATING
HS-0585	Harrison	NO INTERNAL RATING
HS-0586	Harrison	NO INTERNAL RATING
HS-0587	Harrison	NO INTERNAL RATING
HS-0588	Harrison	NO INTERNAL RATING
HS-0589	Harrison	NO INTERNAL RATING
HS-0590	Harrison	NO INTERNAL RATING
HS-0591	Harrison	NO INTERNAL RATING
HS-0593	Harrison	NO INTERNAL RATING
HS-0597	Harrison	NO INTERNAL RATING
HS-0601	Harrison	NO INTERNAL RATING
HS-0602	Harrison	NO INTERNAL RATING
HS-0603	Harrison	NO INTERNAL RATING
HS-0605	Harrison	NO INTERNAL RATING
HS-0609	Harrison	NO INTERNAL RATING
HS-0610	Harrison	NO INTERNAL RATING
HS-0611	Harrison	NO INTERNAL RATING
HS-0612	Harrison	NO INTERNAL RATING
HS-0613	Harrison	NO INTERNAL RATING
HS-0614	Harrison	NO INTERNAL RATING
HS-0615	Harrison	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
HS-0616	Harrison	NO INTERNAL RATING
HS-0617	Harrison	NO INTERNAL RATING
HS-0618	Harrison	NO INTERNAL RATING
HS-0656	Harrison	NO INTERNAL RATING
HS-0688	Harrison	NO INTERNAL RATING
HS-0692	Harrison	NO INTERNAL RATING
HS-0694	Harrison	NO INTERNAL RATING
HS-0771	Harrison	NO INTERNAL RATING
HS-0775	Harrison	NO INTERNAL RATING
HS-0776	Harrison	NO INTERNAL RATING
HS-0777	Harrison	NO INTERNAL RATING
HS-604	Harrison	NO INTERNAL RATING
HS-689	Harrison	NO INTERNAL RATING
LE-0021-0001	Lewis	NOT NRHP-ELIGIBLE
LE-0021-0002	Lewis	NOT NRHP-ELIGIBLE
LE-0122	Lewis	NOT NRHP-ELIGIBLE
NR# 85001583/ St. Bernard Church and Cemetery	Lewis	NRHP-LISTED
ME-0011 (NR# Missing)/Cook's Mill	Monroe	NRHP-LISTED
ME-0022/Ellis Home	Monroe	CONSIDERED NRHP-ELIGIBLE
ME-0028-0001	Monroe	NO INTERNAL RATING
ME-0028-0003	Monroe	NO INTERNAL RATING
ME-0032	Monroe	NOT NRHP-ELIGIBLE
ME-0298	Monroe	NOT NRHP-ELIGIBLE
NR# 01000776/ Beaver Mill	Nicholas	NRHP-LISTED
NI-0002-0039	Nicholas	NO INTERNAL RATING
NI-0002-0102	Nicholas	NO INTERNAL RATING
NI-0002-0144	Nicholas	NO INTERNAL RATING
NI-0002-0164	Nicholas	NO INTERNAL RATING
NI-0002-0165	Nicholas	NO INTERNAL RATING
NI-002-0143	Nicholas	NO INTERNAL RATING
NI-0025-0001	Nicholas	NO INTERNAL RATING
NI-0025-0002	Nicholas	NO INTERNAL RATING
NI-0025-0027	Nicholas	NO INTERNAL RATING
NI-0025-0028	Nicholas	NO INTERNAL RATING
NI-0025-0029	Nicholas	NO INTERNAL RATING
NI-0025-0030	Nicholas	NO INTERNAL RATING
NI-0025-0031	Nicholas	NO INTERNAL RATING
NI-0025-0032	Nicholas	NO INTERNAL RATING
NI-0025-0033	Nicholas	NO INTERNAL RATING
NI-0025-0034	Nicholas	NO INTERNAL RATING
NI-0025-0035	Nicholas	NO INTERNAL RATING
NI-0025-0036	Nicholas	NO INTERNAL RATING
NI-0025-0036	Nicholas	NO INTERNAL RATING
NI-0025-0037	Nicholas	NO INTERNAL RATING
NI-0025-0038	Nicholas	NO INTERNAL RATING
NI-0025-0039	Nicholas	NO INTERNAL RATING
NI-0025-0040	Nicholas	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
NI-0025-0041	Nicholas	NO INTERNAL RATING
NI-0025-0042	Nicholas	NO INTERNAL RATING
NI-0025-0043	Nicholas	NO INTERNAL RATING
NI-0025-0044	Nicholas	NO INTERNAL RATING
NI-0025-0045	Nicholas	NO INTERNAL RATING
NI-0025-0046	Nicholas	NO INTERNAL RATING
NI-0025-0047	Nicholas	NO INTERNAL RATING
NI-0025-0048	Nicholas	NO INTERNAL RATING
NI-0025-0049	Nicholas	NO INTERNAL RATING
NI-0025-0050	Nicholas	NO INTERNAL RATING
NI-0025-0051	Nicholas	NO INTERNAL RATING
NI-0025-0052	Nicholas	NO INTERNAL RATING
NI-0025-0053	Nicholas	NO INTERNAL RATING
NI-0025-0054	Nicholas	NO INTERNAL RATING
NI-0025-0055	Nicholas	NO INTERNAL RATING
NI-0025-0056	Nicholas	NO INTERNAL RATING
NI-0025-0057	Nicholas	NO INTERNAL RATING
NI-0025-0058	Nicholas	NO INTERNAL RATING
NI-0025-0059	Nicholas	NO INTERNAL RATING
NI-0025-0060	Nicholas	NO INTERNAL RATING
NI-0025-0061	Nicholas	NO INTERNAL RATING
NI-0025-0062	Nicholas	NO INTERNAL RATING
NI-0025-0063	Nicholas	NO INTERNAL RATING
NI-0025-0064	Nicholas	NO INTERNAL RATING
NI-0025-0065	Nicholas	NO INTERNAL RATING
NI-0025-0067	Nicholas	NO INTERNAL RATING
NI-0025-0068	Nicholas	NO INTERNAL RATING
NI-0025-0069	Nicholas	NO INTERNAL RATING
NI-0025-0076	Nicholas	NO INTERNAL RATING
NI-0025-0077	Nicholas	NO INTERNAL RATING
NI-0025-0078	Nicholas	NO INTERNAL RATING
NI-0025-0079	Nicholas	NO INTERNAL RATING
NI-0025-0080	Nicholas	NO INTERNAL RATING
NI-0025-0081	Nicholas	NO INTERNAL RATING
NI-0025-0082	Nicholas	NO INTERNAL RATING
NI-0025-0083	Nicholas	NO INTERNAL RATING
NI-0025-0084	Nicholas	NO INTERNAL RATING
NI-0025-0085	Nicholas	NO INTERNAL RATING
NI-0025-0086	Nicholas	NO INTERNAL RATING
NI-0025-0087	Nicholas	NO INTERNAL RATING
NI-0025-0088	Nicholas	NO INTERNAL RATING
NI-0025-0090	Nicholas	NO INTERNAL RATING
NI-0025-0091	Nicholas	NO INTERNAL RATING
NI-0025-0092	Nicholas	NO INTERNAL RATING
NI-0025-0100	Nicholas	NO INTERNAL RATING
NI-0025-0101	Nicholas	NO INTERNAL RATING
NI-0025-0102	Nicholas	NO INTERNAL RATING
NI-0025-0103	Nicholas	NO INTERNAL RATING
NI-0025-0104	Nicholas	NO INTERNAL RATING

Resource ID	County	NRHP Status/Internal WVDCH Rating
NI-0025-0104	Nicholas	NO INTERNAL RATING
NI-0025-0106	Nicholas	NO INTERNAL RATING
NI-0026-0011	Nicholas	NO INTERNAL RATING
NI-0026-0012	Nicholas	NO INTERNAL RATING
NI-0026-0103	Nicholas	NO INTERNAL RATING
NI-0026-0163	Nicholas	NO INTERNAL RATING
NI-0026-0184	Nicholas	NO INTERNAL RATING
NI-0026-0185	Nicholas	NO INTERNAL RATING
NI-0026-0187	Nicholas	NO INTERNAL RATING
NI-0026-0188	Nicholas	NO INTERNAL RATING
NI-0026-0189	Nicholas	NO INTERNAL RATING
NI-0026-0190	Nicholas	NO INTERNAL RATING
NI-0026-0191	Nicholas	NO INTERNAL RATING
NI-0026-0193	Nicholas	NO INTERNAL RATING
NI-0026-0194	Nicholas	NO INTERNAL RATING
NI-0026-0195	Nicholas	NO INTERNAL RATING
NI-0026-0196	Nicholas	NO INTERNAL RATING
NI-0026-0197	Nicholas	NO INTERNAL RATING
NI-0026-0199	Nicholas	NO INTERNAL RATING
NI-0026-0200	Nicholas	NO INTERNAL RATING
NI-0027-0044	Nicholas	NO INTERNAL RATING
NI-0027-0054	Nicholas	NO INTERNAL RATING
NI-0027-0055	Nicholas	NO INTERNAL RATING
NI-0027-0063	Nicholas	NO INTERNAL RATING
NI-0027-0064	Nicholas	NO INTERNAL RATING
NI-0027-0065	Nicholas	NO INTERNAL RATING
NI-0027-0066	Nicholas	NO INTERNAL RATING
NI-0027-0067	Nicholas	NO INTERNAL RATING
NI-0027-0067	Nicholas	NO INTERNAL RATING
NI-0027-0068	Nicholas	NO INTERNAL RATING
NI-0027-0070	Nicholas	NO INTERNAL RATING
NI-0027-0071	Nicholas	NO INTERNAL RATING
NI-0072	Nicholas	NO INTERNAL RATING
NI-0073	Nicholas	NO INTERNAL RATING
NI-0096	Nicholas	NO INTERNAL RATING
NI-0097	Nicholas	NO INTERNAL RATING
NI-0098	Nicholas	NO INTERNAL RATING
NI-0099	Nicholas	NO INTERNAL RATING
NR# 85000404/Pence Springs Hotel Historic District	Summers	NRHP-LISTED
WB-0018	Webster	NOT NRHP-ELIGIBLE
WB-0019	Webster	NOT NRHP-ELIGIBLE
WB-0020/Barn	Webster	CONSIDERED NRHP-ELIGIBLE
WB-0036/Wainville U.M.C.	Webster	CONSIDERED NRHP-ELIGIBLE
WB-0092	Webster	NOT NRHP-ELIGIBLE
WB-0093	Webster	NOT NRHP-ELIGIBLE
WB-0094	Webster	NOT NRHP-ELIGIBLE
WB-0095	Webster	NOT NRHP-ELIGIBLE

TETRA TECH

ATTACHMENT D

HISTORIC CONTEXT

HISTORIC CONTEXT

While generally organized by time period, this context focuses on salient themes important in the history of four of nine regions, as established by the West Virginia Division of Tourism (WVDT), which comprise the Project APE (WVDT 2014):

Northern Panhandle	Brooke, Hancock, Marshall, Ohio, Tyler, **Wetzel**
Mountaineer Country	Barbour, **Doddridge**, **Harrison**, Marion, Monongalia, Preston, Taylor
Mountain Lakes	**Braxton**, Clay, Gilmer, **Lewis**, **Nicholas**, Upshur, **Webster**
New River-Greenbrier Valley	**Fayette, Greenbrier,** Mercer, McDowell, **Monroe**, Raleigh, **Summers**, Wyoming

Geographic regions customarily serve to organize and guide the development of historic contexts. However, considering the broad and expansive nature of this particular Project; the use of geographic regions, defined by only physical factors, would seem inadequate. The use of the WVDT regions, which are further defined by unique recreational, historical, and cultural characteristics, provides a relevant framework within which to associate historic architectural resources that were identified in the project area and to aid in recommendations of their potential eligibility for listing in the NRHP.

The historic context for the project area draws largely on the work of Dr. Robert Jay Dilger and James Marshall of West Virginia University (WVU), who in 2002 prepared contexts for West Virginia's 55 counties as part of a project conducted by the WVU Institute for Public Affairs, for the County Commissioners' Association of West Virginia (Dilger and Marshall 2002). Their work has been augmented with information collected by Tetra Tech during the background research phase for this and previous projects. The project area includes locations in the counties of Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Raleigh, Summers, Webster, and Wetzel in West Virginia. However, this historic context is not intended to be a comprehensive history of all 11 counties, rather, it is centered on those countries in which previously recorded and newly identified historic resources are concentrated.

Contact and Early Euro-American Exploration – 1650-1750

Mountaineer Country and the Northern Panhandle

By the mid-seventeenth century, the original Native American populations inhabiting the Upper Ohio Valley were dispersed by the dual effects of conflict with other Native American groups and the introduction of European diseases (Dilger and Marshall 2002; Nash and Strobel 2006:86). Between 1650 and 1725, present-day West Virginia's Upper Ohio Valley was essentially devoid of any permanent Native America groups. Instead, the Haudenosaunee, or Iroquois Nation, who controlled the territory north of western Virginia, used most of present-day West Virginia as common hunting ground during the spring and summer months (Siemon et al. 1995:127; Dilger and Marshall 2002). A number of significant Native American trails passed through parts of the territory, including the Seneca or Shawnee Trail section of the Great Indian Warpath, which ran from upper New York to Georgia, and the Kanawha, or Buffalo, Trail, which traversed the Kanawha Valley (Riddel 2008:35). These trails served as the only accessible land routes across the dense forests of western Virginia when the first white explorers and settlers began to move westward (Rice and Brown 1993).

By 1725, displaced Native American populations from eastern Pennsylvania, New York, and the Great Lakes began relocating into the Upper Ohio Valley and establishing "Indian towns." These included the Delaware, Shawnee, Seneca, and Huron, among others (McConnell 1992). Groups belonging to the Iroquois League who relocated into the Upper Ohio Valley came to be collectively referred to as "Mingo Indians" (McConnell 1992:80). Certain Mingo groups may have established residence in the Tygart Valley and along the Ohio River (Dilger and Marshall 2002).

Prior to this period, the only European exploration of the region had occurred in 1669, when Robert Cavelier de La Salle sailed down the Ohio River claiming land for France. Though he kept incomplete notes during the expedition, La Salle very likely became the first European to set foot in the Northern Panhandle. Although its westernmost area, including the rugged slopes of the Alleghenies, remained unoccupied by white settlers, the eastern territory of present-day West Virginia saw increased settlement around the 1730s. As German and Scots-Irish farmers from the north and English farmers from the Tidewater and Piedmont regions pushed into western Virginia, they largely confined themselves to the region's agriculturally productive valley bottoms and rivers (Ambler 1933:56).

Meaningful settlement west of the Allegheny Plateau would not occur until after the middle of the eighteenth century. In 1749, Pierre-Joseph Bienville de Celeron repeated the expedition of La Salle, sailing down the Ohio River and claiming all of the lands along it for King Louis XV of France. Along the way, de Celeron encountered several English fur traders, whom he immediately ordered off the land. He subsequently wrote, "strong letters of reprimand to the colonial governors protesting English presence on French lands" (Dilger and Marshall 2002). De Celeron's actions escalated tensions between France and Great Britain, and Virginian leaders strongly encouraged settlement in the trans-Allegheny in order to firmly establish a claim on land in the Ohio Valley (Riddel 2008:46).

To better contest the French's claim on land in the Ohio River Valley, a group of wealthy Virginians, including royal Governor Robert Dinwiddie and George Washington, established the Ohio Company of Virginia, a land investment company with the express purpose of developing land from the Blue Ridge to the Ohio River. In 1749, King George II granted the Ohio Company 500,000 acres of land between the Monongahela and Great Kanawha Rivers with the condition that the company locate at least 100 families upon the land within seven years, as well as build a fort and maintain a garrison (Rice and Brown 1993:19-20; Dilger and Marshall 2002). In 1750 and 1752, frontiersman Christopher Gist explored the area of the land grant on behalf of the Ohio Company, identifying the best locations for settlement. During this expedition, Gist passed through Marshall and Wetzel Counties, and may have ventured into Kanawha County as well, making him the first Englishman to leave a record of his visit to the project area (Rice and Brown 1993:20; Dilger and Marshall 2002). These activities of the Ohio Company helped provoke the outbreak of the French and Indian War.

New River-Greenbrier Valley and Mountain Lakes

During the early 1700s, central West Virginia was used as a hunting ground by the Mingo, the Delaware, and other members of the Iroquois Confederacy, especially the Seneca, which was one of the largest and most powerful members of the Iroquois Confederacy. Along with the Seneca and other members of the Iroquois Confederacy, the Cherokee, headquartered in western North Carolina and eastern Tennessee, also claimed part of southern West Virginia (Comstock 1976a:2000).

The earliest European explorers to reach the New River-Greenbrier Valley region was an expedition organized by Colonel Abraham Wood, a fur trader, and led by Captain Thomas Batts and Robert Fallum in 1671. The Batts- Fallum expedition reached present-day Alderson via a series of Indian trails and proceeded to cross the New River. European settlement began in the 1720s and 1730s as immigrants from Pennsylvania and Virginia were encouraged by the British government and the Virginia assembly to settle in the fertile valleys west of the Allegheny Mountains (Comstock 1974:166).

In 1744, Virginia officials purchased the Iroquois title of ownership to West Virginia in the Treaty of Lancaster. The treaty reduced the presence of the Iroquois Confederacy in the state. In 1745, portions of present-day Greenbrier, Monroe, and Pocahontas counties were opened for settlement by the Greenbrier Land Company, which received a land grant for 100,000 acres (40,469 hectares). Settlers quickly moved westward, including Henry Baughman, namesake of Baughman's Fort, who received a grant for 780 acres (320 hectares) south and west of Alderson, near the mouth of Muddy Creek. Stephen Sewell (namesake of Sewell Creek and Sewell Mountain) and Jacob Marlin founded Marlinton along the Greenbrier River in what is now Pocahontas County in 1749, and settlers moved into the Meadow River valley as early as 1758 (Comstock 1974:168).

Colony to Nation – 1750-1789

The French and Indian War (1754-1763)

Mountaineer Country and the Northern Panhandle

The movement of the Ohio Company within the Ohio River Valley initiated a series of raids and construction of forts that soon escalated into the French and Indian War. While no major engagements of the war took place within the project area, the conflict strongly influenced the settlement of the region. In the early days of the war, the British suffered a number of heavy defeats at the hands of the French, particularly the defeat of General Braddock in his attempt to take Fort Duquesne in present-day Pittsburgh. With these military successes, the French encouraged their Native American allies to carry out raids on any settlements and trading posts in the western Virginia frontier. By the end of 1755, few if any English settlers remained in the trans-Allegheny region (Caruso 1959; Lewis 1912:59-67). As the war continued, successes of British forces, particularly the taking of Fort Duquesne in 1758, reduced the number of raids on western Virginia. In 1763, the French surrendered and the Treaty of Paris was signed, ceding Canada and all French claims east of the Mississippi River to Britain (Caruso 1959; Rice and Brown 1993:25).Though the French lost the war, they did succeed in preventing the Ohio Company of Virginia from fulfilling the conditions of its land grant in the Ohio River Valley, as they did not establish enough settlements to meet their obligation.

At the onset of the war, most Native Americans in the area allied with the French against the British primarily because they were more comfortable with French presence. From the beginning, the British had made their intentions of permanent settlement known to the native tribes, while French interests focused primarily on trading. After the surrender of France in 1763, many of their Native American allies continued to fight against the British, fearing that they would see their land taken away from them by white settlers. This effort was led by the Ottawa chief Pontiac, who had begun organizing a confederacy of tribes in the Ohio River Valley and the Great Lakes in the final days of the war. This conflict, known as "Pontiac's Rebellion," lasted until Pontiac's surrender in 1766. Many frontier settlements, including several in western Virginia, were the targets of Indian raids during this time (Rice 1970).

For the British colonists, victory against the French signaled the opening of the western frontier to settlement. However, King George III's Royal Proclamation of 1763 dashed those hopes. The proclamation prohibited colonists from granting warrants, surveys, or patents in the territory west of an established north-south boundary or "proclamation line" just west of the Appalachian Mountains, effectively closing off the frontier to colonial expansion and nullifying titles to all lands beyond the proclamation line. The move was intended to ease the fears of Native Americans, who felt that colonists would drive them from their lands as they expanded westward. However, it did more to anger the colonists. Although many individuals in colonies like Pennsylvania disregarded this law and settled west of the proclamation line, this was not frequently the case in western Virginia. As such, settlement in the trans-Allegheny area of Virginia was delayed by several years (Riddel 2008:66).

In the 1768 Treaty of Fort Stanwix, the Iroquois League ceded to King George III nearly all of what is now West Virginia. In this treaty, a grant of land called the "Indiana Grant" was received by the "suffering traders," a group of merchants who had had trade goods destroyed during the French and Indian War. This land grant, which was located between the Ohio, Monongahela, and Little Kanawha Rivers, included Wetzel, Doddridge, Harrison, and part of Barbour Counties. In 1769, the "suffering traders" joined the Ohio Company to become the Grand Ohio Company, and in 1771 received a much larger land grant including most of present-day West Virginia and eastern Kentucky. The Grand Ohio Company planned on establishing a fourteenth colony there called "Vandalia" or "Westslyvania", but opposition from other groups and the outbreak of the Revolutionary War prevented the plans from coming to fruition (Rice and Brown 1993:30-31).

New River-Greenbrier Valley and Mountain Lakes

From the 1750s through the 1780s, these regions were entangled in a succession of larger conflicts. A brief period of peace followed the end of the French and Indian War in 1763. In present-day Kanawha County, George Yeager, Adam Strader, and Simon Kenton established a hunting camp near the mouth of the Elk River in 1771, but were soon after attacked by a "roving band of Indians." Yeager was killed, and Strader and Kenton fled the area. Three years later, Walter Kelly attempted to establish the first permanent settlement in Kanawha County north of present-day Charleston, but was killed by Native Americans within the year (Rice and Brown 1993:32-33; Dilger and Marshall 2002).

In 1771, John Murray, Earl of Dunmore and the colonial governor of Virginia, directed a series of campaigns against the Shawnee and other tribes in western Virginia. These engagements continued until the outbreak of the American Revolution in June 1775. The preceding October, Colonel Andrew Lewis had mustered a militia of approximately 1,100 men at Lewis's Spring and built a fort, which he called Fort Union. Lewis and his men then made their way to Point Pleasant with the intention of linking up with a force commanded by Dunmore. Cornstalk, the Shawnee war leader, attempted to intercept Lewis's army where the Kanawha River flows into the Ohio River. Lewis's force prevailed and the ultimate outcome of the battle forced Cornstalk to make peace with Dunmore at the Treaty of Camp Charlotte. The Shawnee subsequently relinquished land and hunting claims on all territory south of the Ohio River (Graybill 1950:30).

Settlement

Mountaineer Country and the Northern Panhandle

The period between 1764 and 1774 saw settlement increase in areas of western Virginia, as eager settlers from the north and east ventured into the frontier to establish farmsteads and trading posts. Most did not purchase any sort of title from the Virginia, even after the Treaty of Stanwix, preferring instead to establish their claims using "tomahawk rights," which were honored by other frontiersmen. Securing tomahawk rights required the settler to mark the trees surrounding the land he wished to claim with an axe or tomahawk. These tomahawk rights were often merged into or became more legal "settlement rights" (Callahan 1913:22). Virginia did not sell lands in present-day West Virginia until 1779, and no land titles granted by Virginia can be traced beyond that year.

Settlement of the area known today as the Northern Panhandle first occurred during the period before the Revolutionary War. John Wetzel, who is considered the county's first English settler, established tomahawk rights and constructed a cabin in 1769 at Big Wheeling Creek just south of present-day Wheeling. In 1771, Joseph, Samuel, and James Tomlinson built a cabin in the flats along Grave Creek, near present-day Moundsville. The following spring, the Tomlinson brothers brought their family from Maryland to settle in the area. James Tomlinson would later go on to found Elizabethtown (Dilger and Marshall 2002).

Despite the increased numbers of people pushing westward into western Virginia, many areas saw further settlement delays due to fears of violent Native American groups remaining in the area; particularly the Shawnee, who had never agreed to give up their lands. The territories of present-day Doddridge and Barbour counties did not see any settlement until after the Revolutionary War due to fears of Native American violence.

New River-Greenbrier Valley and Mountain Lakes

The remaining decades of the eighteenth century passed more peacefully and these regions became a point of convergence, with early residents of European extraction consisting of English and Welsh, Scots-Irish, German, and French Huguenot. A variety of religious faiths also was represented, including Lutheran, Methodist, Presbyterian, and Baptist. Africans and African Americans, too, were among the first settlers in the area; some were enslaved and a small number were freemen (Graybill 1950:19). Initially, Greenbrier County, formed from parts of Botetourt and Montgomery Counties (Virginia) in 1778, extended from the present-day Virginia-West Virginia state line on the east to the Ohio River on the west, and included all or parts of Greenbrier, Monroe, Summers, Pocahontas, Fayette, Nicholas, Webster, Clay, Kanawha, Putnam, Roane, Jackson, and Mason Counties. As settlement continued and population increased, other counties were formed from the original county
(Comstock 1974:169-171).

Early settlement patterns were informal and haphazard as most were squatters without legal title to the land. Typically, pioneers would claim a site near a spring, deaden some trees, enclose a clearing, and plant some corn. A maximum of 400 acres could be taken under a "corn" right, but the settler could also be entitled to an adjoining 1,000 acres if he built a cabin and began farming the acreage
(Graybill 1950:19).

The Revolutionary War

Mountaineer Country and the Northern Panhandle

While most of the significant military and political events of the American Revolution occurred elsewhere in the colonies, the role of the local Native American tribes in the conflict heavily affected the Northern Panhandle. At the onset of the American Revolution, the Seneca, Delaware, and Shawnee initially proclaimed neutrality while local Mingo groups allied themselves with the British. By 1777, however, some members of the Shawnee, Delaware, and Wyandot had joined the Mingo against the Americans (Rice and Brown 1993:39-40). Armed by the British, 350 Wyandot, Shawnee, and Mingo attacked Fort Henry near present-day Wheeling in September 1777, killing half of the Americans there in a three-day assault. For the remainder of the war, smaller raiding parties of Mingo and other Native American groups continued to attack settlers and small forts throughout the Northern Panhandle and Ohio Valley region. European settlers were forced to evacuate the territory due to increasing attacks until the war's conclusion in 1783 (Rice & Brown 1993:40; Dilger and Marshall 2002).

In 1776, the Virginia General Assembly ratified the Virginia Constitution in conjunction with the Declaration of Independence. The Virginia Constitution provided for the organization of state and local government, and soon after its passage, the Virginia General Assembly created Ohio, Monongalia, and Yohogania counties from the former District of West Augusta (Dilger and Marshall 2002).

New River-Greenbrier Valley and Mountain Lakes

Within months of the Battle of Point Pleasant, the American Revolution began. As a frontier location, Greenbrier County (comprised of present-day Greenbrier, Monroe, Summers, Pocahontas, Fayette, Nicholas, Webster, Clay, Kanawha, Putnam, Roane, Jackson, and Mason Counties) was subject to attacks by various Indian tribes allied with the British (Graybill 1950:30). Fort Donnally, another frontier fortification in northern Greenbrier County, came under attack by Indians in May 1778. The fort was located several miles southeast of Williamsburg at the intersections of County Routes 60-28 and 17-2. Another fort, locally known as Fort McCoy, was located on Muddy Creek about three miles from Fort Donnally. The fort structure is still extant within a barn at GB-0040- 0042. John McCoy came to the area sometime between 1769 and 1773, and he and James McCoy were taxed for land in the Big Levels and on Sinking Creek in 1774-1775. It is believed that the fort was located on their land and was named accordingly.

A pension application by Jonathan Hughes documented that troops were sent to this fort in anticipation of another attack and that, when an attack did occur, it was successfully repulsed. Hughes served in a company commanded by Andrew Hamilton. Another pension applicant, Henry Peninger, also served under Hamilton, as well as a Captain Stuart and Colonel Samuel Lewis, both of whom were involved in defense of the area. Peninger's application specified only that the fort was located west of the Alleghany Mountain, but he is believed to have been referring to the same location as Hughes (McBride et al. 1996). The hard-fought battles resulted in the withdrawal of the Indians. Thereafter, comparatively minor skirmishes took place in in the Greenbrier Valley until the Revolutionary War ended with the Treaty of Paris in 1783 (Comstock 1974:169-171).

Early National Period – 1789-1830
The Antebellum Period – 1830-1860

Mountaineer Country and the Northern Panhandle

With the end of the Revolutionary War, Americans resumed their course westward in search of new lands in trans-Allegheny West Virginia, Pennsylvania, Kentucky, Tennessee, and the Old Northwest. In 1790, about 125,000 Virginians lived west of the Appalachians. More than 70,000 of them were in Kentucky, which experienced a dramatic population upsurge of nearly six hundred percent between 1783 and 1790. West Virginia had a less spectacular growth. In 1790, her total population was 55,873, but only about 20,000 lived west of the mountains. However, between 1790 and 1830 it reached 317 percent, compared with a 354 percent growth for the nation as a whole. Much of the expansion occurred in the Monongahela, upper Ohio, and Kanawha valleys. By 1800, the Virginia General Assembly had created eight new counties, including Harrison from parts of Monongalia County in 1784 (Rice and Brown 1993:47-48; Dilger and Marshall 2002).

The early speculators and settlers who came to Northwestern Virginia in the frontier period (1763 to about 1800) found that the vast forest provided plenty of hardwood for fuel and for the manufacture of buildings, tools, and everyday items. Scots-Irish, English, and German emigrants streamed across the Appalachian chain from Virginia and Maryland seeking primarily land—rich in soil and ideal in location. The presence of coal on some lands was little more than a curiosity. Settlers vied for the fertile lands situated along the Monongahela River—an established trade route that was navigable downstream and along its tributaries most of the year (Core 1979:63). The first to arrive acquired the lands best suited for agriculture as well as mill and town seats. Those who followed were often compelled to settle further in the interior.

By 1800, most of the choice lands along the Monongahela River had been claimed and Monongalia and Harrison, the only two counties which had been organized at the time, had a combined population of 13,338 (Department of the Interior 1890: 45). Most of the interior, however, was vacant. As trade increased, merchants and artisans set up shops at the two main river settlements, Clarksburg and Morgantown, both founded in 1785.

The settlers' predominant occupation was agriculture and although farm families primarily had to build a homestead and meet their own needs, many after 1820 were able to produce a surplus for market. Surplus grain was fed to horses, cattle, and hogs, which then were sent down the Monongahela River or driven in great droves to eastern markets, particularly to Baltimore and Philadelphia. Due to a thinning wolf population in the 1820s, raising sheep for wool became a major agricultural specialty.

The cattle industry was especially lucrative and by the 1820s, cattle served as an economic base in the counties of the Monongahela Valley and provided capital for the building of mills, stores, and other improvements. A few families, such as the Watsons of Marion County, which later became prominent in the coal industry built up sizeable holdings of land and accumulated capital through the cattle industry (Core 1979: 471; Davis 1970: 776-80). These agricultural pursuits continued to be dominant in the area until the latter part of the nineteenth century when coal, oil, and gas extraction took land out of production. Not only did market agriculture thrive but, from the beginning, an industrial

economy expanded and diversified. Grist and sawmills were the first industries, supplying the vital needs of the region and exporting a small surplus.

Logging was important from the time of the first settlements—logs were floated down the Monongahela to western markets, especially to Cincinnati and Louisville. The processing of wood products into charcoal, potash, and tan bark was also important. A textile industry started in the 1820s in which both flax and wool were processed and woven into fiber. In addition, several potteries, salt works, boatyards, and numerous stills were active (Davis 1970: 669-74; Lough 1969: 441-45).

In addition to these enterprises, The Monongahela Valley boasted the largest iron industry in what would later become West Virginia. Furnaces were built throughout the region, but the industry was concentrated in eastern Monongalia and western Preston Counties, where there were outcroppings of iron ore, and where there existed both plentiful timber for the making of charcoal and limestone for flux. The first furnaces were Rock Forge and Pleasant—both of which were built in the 1790s. In 1809 Samuel Jackson, originally from Brownsville, Pennsylvania, built an iron furnace near Ices Ferry on the Cheat River recorded as the first rolling mill west of the Alleghenies. Jackson soon added a nail factory, rolling mill, foundry, and wagon shops (Department of the Interior 1883: 95).

Additional furnaces were built in the 1820s, 1830s, and 1840s on Cheat Mountain and southward along Chestnut Ridge. By 1840, the Cheat Mountain iron industry included four iron furnaces, a rolling mill, puddling and boiling furnaces, a nail factory, foundry, machine shop, wagon shop, and blacksmith shop. Its products were widely distributed throughout western markets. Despite its promising beginning, however, the Cheat Mountain iron industry declined after about 1850—displaced by the more productive and more favorably located iron works in the Pittsburgh and Wheeling areas. However, the iron industry survived in Preston and Taylor Counties, and two furnaces made the transition to coke smelting. The Irondale furnace at three Forks in Preston County used Upper Freeport coal, mined nearby (Core 1979: 144-47, 265-69; Moreland 1940).

As the forests thinned and wood grew less plentiful in the second quarter of the nineteenth century, some farmers with outcroppings on their property opened coal banks, mining for their own domestic use and charging all visitors a penny or two a bushel to dig all they wanted. Near Fairmont, David Morgan opened a coal bank about 1775; Boaz Fleming bought land on “Coal Run” in 1820; and Isaac White had a right of way for “hauling coal” in 1826. In addition to the local trade, there was also a small regional trade as coal was shipped down the Monongahela River to markets in Pittsburgh, Cincinnati, and Louisville (Fleming 1911: 253).

By 1850, at the onset of large-scale export mining, the agricultural economy had advanced well beyond the stage of self-sufficiency. Farm products, especially livestock, were exported to both eastern and western markets and Monongalia, Marion, and Preston counties supported a viable agricultural economy. By then, the iron industry was declining, but overall the industrial sector was advancing in the Monongahela River counties of Monongalia, Marion, and Harrison. A viable market-oriented agriculture and a limited but diversified industrial economy had developed—meeting the basic needs of the region and exporting to other regions (DeBow 1854: 320-9).

The early trade created a pool of capital, which would be available for investment in the railroads, and coal plants of later years. Through their economic ventures, especially agriculture, several families rose to prominence and composed a small but aggressive group of capitalist elite. Until the Great Depression, leading families within the

region were able to control its coal industry, enriching themselves and the region in the process. With the simultaneous rise of other industries like glass, stone, clay, oil and gas, non-ferrous metals, and chemicals, coal never became supreme. Rather, a diversified economy developed that gave both labor and capital alternative opportunities for employment and investment.

The completion of the Baltimore and Ohio Railroad in 1852 opened additional markets for local products and prompted a migration of settlers, boosting economic growth in northern West Virginia. During this period, the agricultural importance of the Northern Panhandle region expanded as more farmers settled, improving the land. While the agricultural staples were wheat, oats, and hay, farmers found particular success in raising sheep for wool. Marshall County was created on March 12, 1835 from the lower part of Ohio County, and Elizabethtown was named the county seat (Dilger and Marshall 2002). Barbour County was created on March 3, 1843, from parts of Harrison, Lewis, and Randolph counties, Doddridge County was created on February 4, 1845, from parts of Harrison, Lewis, Tyler, and Ritchie counties, and Wetzel County was created on January 10, 1846, from part of Tyler County. Wetzel County was named for Lewis Wetzel, a famous Indian fighter and guide. Wetzel was also the son of John Wetzel, one of the first white settlers of Marshall County, who was murdered by Native Americans in 1778 (Dilger and Marshall 2002).

New River-Greenbrier Valley and Mountain Lakes

Among the earliest settlers of central West Virginia, were Irish Catholic immigrants who entered the region in the 1830's and 1840's following a network of roads and turnpikes whose construction, providing ready employment for workers, was necessary to internal improvements in Western or Trans-Allegheny, Virginia. The Staunton and Parkersburg Turnpike (1824-1847) which passed by Weston, the principal town of Lewis County, was an example of this labor-intensive source of employment. Another event in the area's settlement by the Irish occurred with the donation in 1849 of 100 acres of land to the Roman Catholic Diocese of Richmond, then headed by Bishop Richard Vincent Whelan (who became Bishop of the Diocese of Wheeling after the formation of that Diocese in 1850) who desired to reach and serve the growing Catholic population of Lewis County. The 100 acres were on Loveberry Ridge; they were donated by the Camden, Bailey and Camden Real Estate Company for the purpose of building a church, rectory, and cemetery. The donation of land by the company was aimed at encouraging settlement of the area and sale of additional lands.

The church-owned tract on Loveberry Ridge was developed soon after 1850. The first St. Bernard’s church was of log construction, and a second, frame building, dedicated about 1864, served the community until 1908. It was reported that this building "swayed in the breezes that blew over Loveberry Ridge. In 1906, while administering the Sacrament of Confirmation, Bishop Donahue feared for his life, not being used to this phenomenon." In 1884, a significant date in the history of St. Bernard's, the three local missions of St. Bernard's, St. Bridget's, and St. Michael's were united in a new parish; its first and only resident pastor was Father Thomas Aquinas Quirk, who served in this post from 1884 until his death in 1937. One of Father Quirk’s important contribution was the erection of St. Bernard’s in 1909-10.

The NRHP-listed **St. Bernard's Church and Cemetery (NR#85001583)** are significant because they are the focal points of much of the life's work of Thomas Aquinas Quirk (1845-1937), a Roman Catholic priest who achieved widespread recognition and acclaim for his religious, social, and humanitarian services to an entire region of central West Virginia for a period of over a half century. The simple white-painted, frame church, often referred to in local

history as the "Little Cathedral of the Wilderness," is equally significant as a prominent surviving building associated with the nineteenth and early twentieth century settlement of the Loveberry-Cove Lick-Camden-Murray Settlement areas of Lewis County, West Virginia, by Irish immigrants.

Most early settlers in the southern counties engaged in subsistence farming, carving modest farmsteads for themselves from the dense forests during this period. Comstock reprinted an 1835 account by Joseph Martin that described Greenbrier County as “a wilderness,” with mountains “covered with a growth of large timber of various kinds. . . there is an abundance of deer, wild turkey, pheasants, wolves, wild cats, panthers, bears, and a variety of small game” (Comstock 1976a:2002). In 1820, the county’s population numbered 7,340 and, in 1830, it had increased to 9,006. Other communities in the county at that time included Anthony’s Creek, Blue Sulphur Spring, Clintonville, Frankford (or Frankfort), Hockman, Lick Creek, Maysville (later Sunlight), Sewell Mountain, Spring Creek, and White Sulphur Springs. Frankford was described as a community with about 50 houses, 1 Methodist church, 2 common schools, 2 mercantile stores, 22 taverns, 2 attorneys, a physician, a tanyard, a saddler, and various other shops. The population numbered 230 persons. The village also was noted for large annual livestock sales that took place in its vicinity (Comstock 1976a:2004).

In 1826, as many as 60,000 hogs passed through Greenbrier en route to markets in eastern and far western Virginia (Graybill 1950:31). Thousands of settlers also traveled through Greenbrier County, most on their way to newly opened lands further west. The construction of overland and water transportation routes such as the James River & Kanawha Turnpike opened the region to areas as far flung as Richmond, Pittsburgh, and Cincinnati. The mild climate in Greenbrier and Summers counties also brought development, as spas and resorts were established for the benefit of wealthy Southerners seeking to escape oppressive summer heat.

Pence Springs, a mineral spring and community, is located in Summers County, 12 miles east of Hinton on State Route 3. The spring’s sulfurous water is noted for a distinctive ‘‘rotten egg’’ taste arising from the concentration of hydrogen sulfide. During the nineteenth century, the water of the spring was believed to have medicinal properties, and many visitors were attracted to the site. The property was not developed commercially as a resort until 1872 when a wooden hotel was constructed. The number of visitors rapidly increased in the late 1870s after the Chesapeake & Ohio Railway built its main line down the Greenbrier River. Eventually Pence Springs became so popular that several boarding houses and hotels operated in addition to the original hotel. About 1900, E. M. Carney of Kanawha County purchased property near that of Pence and erected a rival hotel. In 1918, a large brick hotel was constructed by the Pence family on the hill overlooking the original spring. This hotel operated until the 1930s but closed due to lack of revenue. In 1947, the property, containing the original spring, brick hotel, and fields along the river, was purchased by the state of West Virginia for use as the state prison for women. The prison functioned until 1985, at which time the prisoners were transferred to the federal women’s prison in nearby Alderson. The hotel was placed on the NRHP in 1985 **(NR#85000404)**.

The settlement of Nicholas County, formed in 1818, progressively moved from Greenbrier County to the northwest. The town of Beaver Mill, named for its circa-1852 water-powered gristmill, was an important little village in Nicholas County's early history. It was the location of the post office and predates the one in nearby Craigsville. This hamlet rivaled Craigsville and was located on the road between Summersville and Greenbrier County. The NRHP-listed **Beaver Mill (NR#01000776)** is located in the vicinity of the town of Craigsville, off of County Route 5. It is adjacent

to Beaver Creek, near the junction with Little Beaver Creek and stands today as Nicholas County's only remaining mill (Brown 1981).

A road running through Beaver Mill, known today as Beaver, was the main route southeast from Summersville. It connected to the **Weston to Gauley Bridge Turnpike (NR#98001430)** at Summersville, which provided access south to the Kanawha Valley and the salt works. It also provided a route north to Braxton and Lewis Counties, where connection could be made and where additional salt works were located. The road ran west from Beaver using Niles Road to reach Summersville. Traveling to the southeast, it crossed the top of the hill at the current location of Craigsville, and then continued southeast to Richwood. From there, it entered Greenbrier and Pocahontas Counties to the east and south (Brown 1981).

From 1850 to 1860, economic growth slowed as agricultural markets entered a period of mild depression and other regions posed increasing competition. The increasing tension in the nation over slavery and states' rights hampered development as well.

The Civil War – 1861-1865

Mountaineer Country and the Northern Panhandle

Because the Northern Panhandle was closely linked to the industrialized economy of the North, residents largely supported the Union cause during the Civil War. In May of 1861, delegates from 25 counties of northwestern Virginia met at the First Wheeling Convention to pass resolutions against secession and to elect a provisional government. Of the 436 delegates who attended, 162 were from the Northern Panhandle. Despite having a central location and disputed land, the area of West Virginia saw limited military action during the war, with most being Confederate raids and engagements of guerilla warfare by pro-Confederacy locals. A main focus of these actions was the B&O Railroad, a major supply route connecting Maryland with the Midwest. Because it passed through what was then still western Virginia, the railroad was susceptible to raids by Confederate troops, who repeatedly destroyed sections of the route and captured Union supplies of coal. These raids continued even after West Virginia became a state in 1863 (Rice and Brown 1993:124-138).

One of the first major land battles of the Civil War, the Battle of Philippi, occurred in Barbour County. While most of western Virginia supported the Union, the majority of Barbour County residents were pro-Confederacy, and in May and June of 1861, Confederate Colonel George A. Porterfield spent time in the county seat of Philippi with an army of 775 men securing additional enlistments and supplies.

Meanwhile, nearly 3,000 Union troops who had marched from Wheeling under the direction of General Thomas A. Morris arrived in Philippi, surprising Porterfield and forcing his retreat. Union-held Philippi remained largely deserted for the rest of the Civil War, as the county's pro-Confederacy residents avoided the town (Dilger and Marshall 2002). The secession of West Virginia from Confederate Virginia in 1863, as well as increased population growth, prompted the further organization of land in the region (Dilger and Marshall 2002).

New River-Greenbrier Valley and Mountain Lakes

The outbreak of the Civil War in 1861 placed central and southern West Virginia counties squarely in the midst of the national crisis. Greenbrier County, in particular, was located in a border area that represented a commingling of Northern and Southern identity. Greenbrier and its neighboring counties found themselves literally at the crossroads of the war. At that time still a part of Virginia, which had seceded from the Union in April 1861, Greenbrier County ultimately was enfolded with 49 other mountain counties to form the new commonwealth of West Virginia in mid-1863. Rejoining the Union, however, proved to offer little protection against the war's exigencies. Confederate guerilla activity continued in the area long after Union forces ostensibly had occupied the state. Roads and bridges, in particular, were subject to considerable damage during the war. The local agricultural economy suffered as well, as did financial markets with the scarcity of bank credit. Human costs, too, were high, as many had been bitterly divided by the sectional crisis; West Virginia sent thousands of troops in support of both the Union and Confederate causes (Graybill1950:32).

Within Greenbrier County, three clashes occurred in the relative vicinity of the Project APE. The first of these was the battle of Lewisburg, which took place in May 1862. Union forces were commanded by Colonel George Crook, while the Confederates were under Brigadier General Henry Heth. Numbering approximately 1,400 troops, the Federal forces reached the town of 800 inhabitants on 21 May and took up an encampment on the western edge of town. Coming from Pearisburg through Monroe County, the Confederate troop of approximately 2,300 men reached Lewisburg during the early morning hours of 23 May. They formed a battle line on the east side of town and opened the battle with a bombardment of the Union camp. The Federals reacted with an assault on the Confederate artillery lines, advancing uphill against a superior position and soon overtaking a poorly trained militia battalion, thus exposing the Southern artillery positions to attack. Over the course of a little more than an hour, the Confederates were driven back. Under constant fire, they retreated across the Greenbrier River and burned the bridge behind them, while the Union forces continued to occupy Lewisburg, although they eventually left the city as well (Anonymous n.d.a).

The Sinking Creek Raid took place in late November 1862. The incident was documented through eyewitness accounts and later oral traditions. Its specific location is not known, but the event took place somewhere in the vicinity of Cold Knob. A Confederate regiment made a campsite in the lowlands within view of the knob, while Union forces were sent to intercept them. As the Federals approached, a severe snow storm moved into the area. With visibility hampered and the men endangered by cold and treacherous conditions, the Confederates confined themselves to their campsite. Accounts vary as to the exact sequence of events that followed, but a small contingent of approximately 22 Union troops is believed to have come upon the campsite. At the urging of their commanding officer, Major (later General) William Powell, the group undertook a daring raid to arrest the Confederates, who numbered as many as 275. In the confusion and general misery of the snowstorm, the Confederates surrendered to the Federals. Powell and his men immediately began attempting to round up these troops to march them back to Union-controlled territory. Given the number of men on the Confederate side, however, the Union troops were unable to keep many in custody and they are reported to have slipped away to seek shelter at the homes of local Southern sympathizers. Approximately 111 prisoners remained in custody when Powell and his men rejoined the main body of the Union troops (Anonymous 1928).

Almost exactly one year later, the battle at Droop Mountain occurred on 6 November 1863. The Federal army, under command of General William W. Averell, engaged Confederate troops under Brigadier General John Echols and Colonel William L. Jackson. Just prior to the battle, Echols was in Lewisburg with the main body of troops, while Jackson concentrated his forces at Mill Point but then fell back to Droop Mountain following a brief skirmish. Soon

after the termination of the battle, Echols was made aware that Brigadier-General Duffie, of the Federal Army, was on the top of Little Sewell Mountain (within the Project APE), 18 miles west of Lewisburg, advancing rapidly with 2,500 men and 5 pieces of artillery to intercept the Confederates.

The following morning, November 6, at around 9 a.m., Echols arrived with his men at the summit. Coming from the lowlands below, Averell at once went on the offensive and sent a detachment of men to advance up the mountainside. The maneuver proved successful and the Confederates fell back with the intention of reaching Lewisburg and then the James River and Kanawha Pike. The Federals were slow to follow up on their victory at Droop Mountain and the Confederates were successful in their retreat south into Virginia (Cook 1928). Home guards of Union and of Confederate sympathizers also were present in the area during the Civil War. For the most part, these operated as militia units comprised of local residents. They were not part of the standing army for either side and were active only in their local districts. Members usually either were too young or too old for military service. By the end of the war as supplies of all types became scarce, the home guards appropriated materials from all residents, regardless of their sympathies.

Reconstruction and Early Industrial Development – 1865-1917

Mountaineer Country and the Northern Panhandle

Following the Civil War, the Northern Panhandle experienced a steady pace of industrial development, supported by railroad, river, and overland roadway transportation routes. Most of this growth occurred in the city of Wheeling, about 12 miles north of Moundsville, though its economic success attracted more people to the entire region. The B&O Railroad, its rails and bridges having been repaired, was again able to offer continuous service to its passengers, bringing visitors and settlers to budding communities. The B&O also enjoyed a period of growth as it expanded lines further west to St. Louis and Chicago. By the end of the nineteenth century, new transportation lines like the Ohio River Railroad, constructed in 1884, and the Benwood and Southern Electric Railway, connecting Moundsville and Wheeling in 1896, facilitated the movement of people and goods throughout the state and country (Powell 1925:90).

During the first two decades after the Civil War, much of the Northern Panhandle served more as an “agricultural hinterland” to the flourishing Wheeling. The land was particularly favorable for raising livestock, particularly sheep, and in addition to practicing a diversified system of agriculture, many farmers also produced dairy products to supply to the city (Fones-Wolf 2007:84). Farmers also continued to find success in sheep and wool raising.

However, the region experienced a sudden growth of industry and commerce at the end of the nineteenth century. The emergence of the coal industry encouraged the Fostoria Glass Company to move from northwest Ohio to Moundsville in 1891 (Fones-Wolf 2007:85-86). By the early 1900s, industries like the United States Stamping Company and the Suburban Brick Company called the area home home.

While coal expansion and profits were inhibited by the Panic of 1873, as the nation gradually recovered, mining activity rose in north central West Virginia. In 1880, production stood at 523,671 short tons and Preston and Harrison Counties were by then the major producers, each with over 100,000 tons, followed by Marion, and then Monongalia County. The Newburg-Orrel Coal & Coke Company operated three mines, two of which were in Preston County. Along with domestic consumption, coal was used by foundries and machine shops in Marion County. Four

establishments distilled their product into coke—some of which was shipped, but some was used locally by two iron furnaces, one in Preston and another in Taylor County (Department of the Interior 1888: 670, 927-30).

In 1884, local capitalists built the Grafton & Greenbrier Railroad, which was opened from Grafton in Taylor County to Philippi in Barbour County, and in 1892, after it was taken over by the B&O, on to Belington. Also in 1884, grading began on the West Virginia Northern Railroad between Tunnelton and Kingwood in Preston County; it was completed in 1887. Morgantown was linked to the B&O's main stem at Fairmont in 1886 after George Sturgiss and a group of Morgantown capitalists completed the Fairmont, Morgantown, and Pittsburgh Railroad. The line, built on the east bank of the Monongahela River, was taken over by the B&O shortly after it was completed (Hennen 1914: 4-5, 27).

As the coal industry grew in the era of Reconstruction, considerable growth also characterized the economy in the agricultural and manufacturing sectors. After devastating setbacks during the Civil War, West Virginia agriculture revived rapidly. Agriculture remained the most important industry, with livestock—principally cattle—its main "cash crop." In Preston County, small acreages were put to rye and buckwheat, which flourishes in higher elevations (Department of the Interior 1900: 136-35, 939-49).

By the late nineteenth century the manufacture of face brick, firebrick, paving brick, drainage tile, and furnace linings had become important. Perhaps the most widely recognized use of clay resources was the making of pottery in various locations throughout the state. The first pottery establishment west of the Appalachians is believed to be the one started in Morgantown, in 1785, by James Thompson. Demands for pottery had increased as settlements grew up around the frontier forts, remote from seacoast markets and without good transportation across the mountains. Even when pottery could be obtained from Baltimore, it was extremely expensive. Extensive deposits of Quaternary clay were readily accessible from the terraces of the Monongahela River, and the clay was of superior quality. At first, terra cotta china was made, followed by stoneware with a salt glaze. When James Thompson's grandson, Greenland, died in 1890, the Morgantown pottery business ceased operation. Other earthenware plants were located at various locations throughout the state including Grafton in Taylor County (Taylor County Historical and Genealogical Society, Inc. 1986: 78-87).

Vast deposits of sand, some of it 99.89 percent pure silica, and availability of natural gas and limestone, assured West Virginia an important place in the glass industry. In contrast to West Virginia coal interests, who were absentee owners and had little commitment to local prosperity, local Republican political leaders in northern West Virginia counties sought industries whose profits would be recycled back into the community. Their focus turned to glass factories, which were protected from competition by a high tariff and run by highly paid craftsmen. The northern panhandle and the upper Monongahela Valley had access to transportation, to skilled labor from nearby Pittsburgh, and most importantly, to pockets of natural gas that would prove ideal for powering glass factories. However, in Fairmont in Marion County, mechanization deskilled the labor force in glass bottle making to such an extent that the craft workers left or accepted new positions in the plant, and the low-skilled workers who took jobs there did not earn above the average wage level for the state. Despite some initial progress in local economic development, firms from Ohio and Connecticut built large factories there and dominated the local economy and undermined the local character of the industry (Fones-Wolf 2006: 146-157).

With the added shipping lanes and increased demand for coal during World War I, production continued to increase during the 1910s, although not at the tremendous rate that it had from 1890 to 1910. The Consolidation Coal Company (CONSOL) led the advance. After its reorganization in 1903, CONSOL embarked on an expansion program that made

it the largest coal company in the world by 1927. In the Monongahela River Valley, CONSOL acted through its subsidiary, the Fairmont Coal Company. Fairmont Coal owned 65,346 acres of coal and leased an additional 22,999 acres. It had forty-seven operations, most of which were located along the Monongahela and West Fork Rivers. In 1910, Fairmont Coal produced 5,609,721 tons, or 46 percent of the field's total output. Fairmont Coal was not, however, a major coke producer, distilling only 72,864 of the region's 916,070 tons of coke in 1910. By 1920, Marion County's production leveled off and the expansion of the decade was concentrated in Monongalia County (West Virginia Department of Mines 1910, 1920).

As the coal industry expanded in the region in the 1910 to 1920 period, indigenous operators continued to play a leading role. Some of the leading coal barons invested in industries other than coal, such as non-ferrous metal manufacturing, utilities, real estate, banks, and construction. These investments contributed to the general industrial expansion of the region. During the thirty-year period from 1890 to 1920, which historian Charles Ambler called the "Awakening," the area grew economically at a rate slightly faster than the rest of the nation. On a state level, the counties in the Monongahela Valley region—Monongalia, Marion, and Harrison counties—were second only to West Virginia's Northern Panhandle in non-mining manufacturing activity in 1919 (Department of the Interior 1923: 1587).

Despite the dramatic growth in coal and manufacturing, the farm economy in the 1900 to 1920 period was stagnating. Surprisingly, the decline of agriculture in Marion, Monongalia, and Taylor Counties was blamed on the high wages in the oil and gas fields as opposed to coal production. The development and expansion of coal mining was not faulted, as Polish, Russian, Croatian, and Italian immigrants unskilled in farm work performed much of the mining. However, absent in this assumption is the vast acreage of farmlands that were leased to and purchased by companies for the mining of coal (Hennen 1914: 789).

New River-Greenbrier Valley and Mountain Lakes

The decades following the Civil War witnessed changes of enormous depth and breadth for central and southern West Virginia. Railroads finally reached many of these counties, enabling their wealth of natural resources to be exploited on an unprecedented scale as the Industrial Revolution transformed the American economy. By the mid-nineteenth century, small-scale commercial lumbering began to develop as water-powered sawmills and portable steam sawmills were built throughout the county. With the further expansion of the C&O Railroad, access to distant markets was greatly improved and large-scale logging became more feasible. Capitalizing on the railroad's emerging presence within the county, many sawmills were built along the rail lines. The primary shipping points for lumber were White Sulphur Springs, Caldwell, and Ronceverte in Greenbrier County.

Simultaneous to increased access to distant markets, technological advancements allowed for increased lumber production. The first band-saw operation in the county was that of the St. Lawrence Boom and Manufacturing Company that came to Ronceverte in 1882. In 1884, a double band mill replaced the band saw and continued to operate until 1910, when the pine supply began to decrease. During its 24 years of operation, the mill cut 433,000,000 feet of white pine from Greenbrier and Pocahontas counties.

In 1870, the Elkins and Davis families acquired vast tracts of land in fee and mineral rights in the county in connection with their timber purchases. In conjunction with opening coal fields, Henry Davis proposed to construct a railway from Randolph County to connect with the C&O line, but the plan never materialized (Conley 1960:267).

In 1883, the completion of the major rail lines elsewhere in West Virginia caused coal production to skyrocket to nearly 3 million tons. In Greenbrier and Nicholas counties within the project APE, however, the development of rail lines lagged and hindered development of the coal industry. Finally, in 1906, the first commercial coal mine was opened by Elk Lick Coal Company and produced 37,898 tons of coal the first year of operation. Within the next few years, the company had two more mines at Spruce Knob and Lost Flat. In 1917, the Raine brothers, who already had experience great success with lumbering, also opened the **Meadow River Smokeless Coal Company** in Rainelle, which is located within one mile of the project APE (Conley 1960:268).

World War I to World War II - 1917-1945
Mountaineer Country and the Northern Panhandle

Increased production demands during World War I and World War II stimulated a number of manufacturing industries in the Ohio Valley. Firms like Union Carbide and DuPont Corporation near Charleston established plants along the Ohio River that produced compounds required for the manufacture of rubber, plastics, nylon, etc. (James 2003).

Improvements to the West Virginia transportation infrastructure also bolstered the region's economic development. In the 1920s, the West Virginia State Road Commission created the State Road System, which allowed for the construction of state roads and highways connecting the county seats of West Virginia and important roads of adjoining states. This lead to the construction of State Route 2, which travels generally along the western border of Marshall County and the rest of West Virginia until reaching the city of Huntington. In 1928, US Route 250 was constructed as a spur of US Route 50, which followed the old Northwest Turnpike through West Virginia. US Route 250 passes through much of the project area, including Marshall, Wetzel, and Barbour Counties.

The region's coal industry that emerged from the Depression and New Deal was far different from the one of earlier decades. The national coal miners' union, the UMWA was now permanent in the region and the small-time operator no longer had the ability to maintain an advantage by paying lower wages. Large companies were able to survive and flourish because of their ties to out-of –state capital and a reorganized CONSOL remained the largest and strongest firm in the field. An important aspect of the 1930s restructuring of the coal industry was the emphasis of mechanization due to collective bargaining. With wages equalized, it was no longer possible for one firm or region to undercut another with a low-wage policy. The coal industry was destined to follow the path towards mechanization that was sketched out by industry leaders in the 1920s. In the 1935 to 1955 period, this involved the installation of loading machines and the rationalization of the production process so that the mine resembled more closely a modern factory (Zimolak 1977).

The residents of Scotts Run in Monongalia County survived the Great Depression, but the 1930s marked the beginning of a long slide into obscurity for the area. During the Great Depression, Scotts Run residents suffered like most Americans from unemployment and ethnic and racial prejudice. Many left the area in search of a better life, and a number of families were chosen for the new resettlement community of Arthurdale in neighboring Preston County. Spearheaded by Eleanor Roosevelt, Arthurdale was the first of over one hundred experimental communities

established by the federal Rural Resettlement Commission to relocate redundant industrial workers into the countryside. As elsewhere in rural America, World War II took many of the young men from Scotts Run, and most of them did not return after the war (Ross 1994: 21-42).

New River-Greenbrier Valley and Mountain Lakes

Although much of the early rail network in Greenbrier and Nicholas counties was constructed to serve the lumber industry, these lines soon came to serve coal mines as well. In 1921, the Greenbrier & Eastern Railroad was completed and extended from Rainelle to join with Sewell Valley Railroad into the low volatile or smokeless coal fields. This new line was undertaken by several coal operators who sought a connection between their properties and the C&O system. Along this line, newly opened mines included the **Frances Coal Company** and the **Margarette Coal Company** at Marfrance,, the **Greenbrier Smokeless Coal Company** at Belburn, the **Meadow Creek Company** at Crichton, and the **Nelson Fuel Company** with 2 mines at Leslie—all of which are located within one mile of the Project APE (Conley 1960:268). In 1927, the C&O and the New York Central railroads took over the Greenbrier & Eastern and, in 1928, the Big Clear Creek subdivision was completed. This new line quickly spurred additional mining activity and new mines included Leckie Smokeless Coal Company at Anjean, Raine Lumber and Coal Company at Duo, and Clear Creek Coal Company at Clearco (Rice 1986:360). More aggressive mining practices also allowed coal production to increase while reducing the number of workers needed. Those employed in machine mining overwhelmed the number of men using hand tools in many of the area's mines.

Throughout the coal camps of Appalachia, miners were paid in company-issued scrip that could be used only at company stores, and they lived in company-owned housing. Workers were paid according to the volume of their production. Union organizing efforts began during the 1920s when workers began to protest dangerous working conditions. Violent clashes occasionally took place. The Baldwin Associates was especially remembered for bringing in armed security forces who shot at striking miners. Ultimately, however, the unions were successful in organizing workers, and the union locals continue to be active today.

In 1932, there were ten companies operating in the Sewell seam, while the Meadow River Fuel Company in East Rainelle and the Midland Smokeless Coal Company at Charmco mined in the Fire Creek seam (Conley 1960:269). The other companies mining in the Sewell seam included the **Clear Creek Coal Company** with two mines at Clearco, the **Frances Coal Company** at Marfrance, the **Greenbrier Smokeless Coal Company** at Bellburn, the **Imperial Company** at Quinwood (within one mile of APE), the Johnston Coal and Coke Company at Crichton, the Leckie Smokeless Coal Company at Anjean, the Margarette Company at Marfrance, and the New River and Pocahontas Consolidated Coal Company at Leslie (Conley 1960:268).

The production of these coal mines closely followed the trends of the state, dropping during the Great Depression and beginning an upward climb by the late 1930s. Production reached 2,227,896 tons in 1942. Rail expansion during the 1930s and 1940s helped to stimulate the sagging coal industry but the coal tonnage peaked during the mid- to late 1940s (Rice 1986:362). Faced with declining reserves of coal and rising costs, the remaining mines resorted to automation for deep mines and to surface mining. As previously noted, a recession in the industry took place through much of the 1950s and 1960s, but mining activity continued on a large scale. In 1983, more than 3.8 million tons of coal was produced in Nicholas County, with an average of nearly 20,000 tons mined each day. Thirty-one companies

operated mines in the county, employing approximately 1,163 workers in 52 underground mines. Additionally, 61 surface mining sites produced 7,595 tons of coal each day (Nicholas County Historical and Genealogical Society, Inc. 1985:37-38, 98, 103). Coal production remained steady through the 1980s but, by the mid-1990s, the remaining mines closed due to depleted resources. Within the project APE, reclamation of previously surface mined areas is ongoing.

Counties in southern West Virginia owed much of their economic success to exploitation of lumber and mineral resources. Poor management of those resources, however, resulted in catastrophic damage to the natural environment. Within a few years of the beginning of the lumber industry boom, rapid run-off and soil erosion led to increasing problems with floods, particularly after heavy rains and during quick melting of snow in the winter and spring seasons. In March 1907, a disastrous flood struck the Monongahela River basin, causing damages in excess of $100 million. Pittsburgh alone suffered $8 million in losses. An examination of the flood and its aftermath led engineers to conclude that it had been caused by the destruction of forests on the watersheds of the Allegheny and Monongahela rivers. The Congressional response to the disaster led to passage of the Weeks Law in 1911, and from that
event, to the creation of the Monongahela National Forest (U.S. Department of Agriculture, Forest Service, Eastern District 1939:4).

The Weeks Law allowed the Federal government to purchase lands on the watersheds of navigable streams and to establish national forests for the purpose of regulating stream flow. Dr. I. C. White, former State Geologist of West Virginia, played an active role in lobbying for passage of the law. Within a few months of its enactment, the Federal government made the first acquisition of land in what would become the Monongahela National Forest. The original land purchase encompassed 260,000 acres. In 1927, the National Forest Reservation Commission approved the addition of approximately 700,000 acres to the forest, located in parts of Grant, Greenbrier, Nicholas, Pendleton, Pocahontas, Randolph, and Tucker counties, as well as in Highland County, Virginia (U.S. Department of Agriculture, Forest Service, Eastern District 1939:2, 4-5).

From its beginning, the forest was established to meet a number of needs. The U.S. Forest Service actively managed the forest to maximize timber production. Construction of roads and trails facilitated access throughout the forest. By 1930, 201 miles of trails had been built in the forest, as well as 57 miles of dirt roads. Recreation also figured prominently in the forest. Public campgrounds were a mainstay of the forest from its earliest years, and fishing and hunting were encouraged by stocking streams with bass and trout and through the creation of game refuges (U.S. Department of Agriculture, Forest Service, Eastern District 1939:6-10).

During the Great Depression, the New Deal-era Civilian Conservation Corps (CCC) built campsites, fire watchtowers, roads, and trails in the Monongahela forest. The CCC was a public works program designed to provide employment to young men. But in addition to offering work, the CCC met a pressing public need. Public recreational use of the forest grew dramatically during the 1930s. Families in search of low-cost recreation flocked to the forest at the rate of 1.173 million visitors per year. Construction projects such as Stuart Memorial Drive and Stuart, Smokehole, and Blue Bend forest camps, and improvements at Bickle Knob, Bear Heaven, Alpena Gap, and Condon Run camps were designed to absorb some of this load.

By 1935, there were 250 miles of forest roads and 600 miles of walking trails winding through the forest. On 9 October 1934, forest land was acquired as part of Tract 372 from the Cherry River Boom & Lumber Company. A fire

watchtower on Briery Knob and a road (present day Fire Road 223) were built during the 1930s; the watchtower is no longer extant but the road remains in use (USDA Forest Service Eastern Region 1939).

The Monongahela National Forest ultimately grew to encompass more than 1 million acres, stretching a distance of 100 miles from north to south and 30 to 50 miles from east to west. It comprises almost 10% of West Virginia's entire area. The headwaters of the Monongahela, Kanawha, Potomac, Elk, Cheat, Greenbrier, Gauley, and James rivers are within the boundaries of the forest. Daily, upwards of 1.75 billion gallons of water are carried from the forest by these streams and rivers (Case 1985a:B1). Since its establishment, the Monongahela Forest has been directly associated with important trends in forestry, soil conservation, and the environmental movement. The forestry management practices employed by the U.S. Forest Service have evolved dramatically over the past century. Many of those techniques have been employed at the Monongahela, such as replanting with native hardwoods and softwoods, controlled burns, selective timber cutting, and designation of wildlife habitats and refuges. Recreational enthusiasts, conservationists, and environmentalists also have involved themselves in the forest's management over the years. Controversy erupted in 1972 over plans to increase logging in the forest and again in 1985 during a revision of the U.S. Forest's Service management plan for the Monongahela. In addition to its timber resources, the forest's economic impact came to be measured in the tourism dollars it brought to the region.

The environmental value of clear streams, safe drinking water, and plant and animal species protection have figured prominently in treatment of the forest since the 1960s (Case 1985a; Case 1985b). Consequently, the confluence of economic, social, and cultural forces with regard to treatment of the Monongahela National Forest cause it to loom large in the local history of the project area.

Presently, the forest is among the natural resources promoted by the West Virginia Division of Tourism as the "Appalachian Forest Heritage Area" (AFHA). Partnering with a grassroots network, the organization works to explore the relationship between the Appalachian highland forests and the people who live within it. The program website bills it as "an effort to integrate central Appalachian forest history, culture, natural history, products, and forestry management into a heritage tourism initiative to promote rural community development" (AFHA 2006).

1945-Present

Mountaineer Country and the Northern Panhandle

After World War II, the chemical and manufacturing industries continued their growth along the Ohio River in West Virginia, while small coal and railroad towns slowly disappeared. In 1946, the Pittsburgh Plate Glass Company completed construction on a facility in Natrium in Marshall County. The factory remains in operation today, producing primarily chlorine and caustic soda used in pharmaceuticals, paper and plastics production, and water purification (Pittsburgh Plate Glass 2010). The Mobay Chemical Corporation, which is a part of the Bayer Corporation, also operates in Natrium (Marshall County Historical Society 1984).

By the 1950s, the numerous coal tracts in the Monongahela River Valley as well as those along Scotts Run had been consolidated into a few large parcels, most notably those controlled by Consolidation Coal Company (CONSOL). Mechanization of the mines took a heavy toll on the labor force everywhere, and Scotts Run was no exception. With little chance of employment, miners and their families moved on which was facilitated by the construction of better

roads. With widespread automobile ownership after World War II, workers no longer needed to live next to their place of employment.

Also during the 1950s and 1960s, highway legislation provided funding and organization needed to encourage further development of the rugged trans-Allegheny region. The Federal-Aid Highway Act of 1956 allowed the state to construct sections of six interstate routes totaling over 550 miles, including Interstate 70 to the north of the project area. The Appalachian Regional Development Act of 1965 also provided funding to construct several highway corridors through the region's mountainous terrain, combating the area's isolation. While automotive infrastructure flourished, local use of railroads, particularly the B&O Railroad, drastically diminished. After the final passenger run in 1957 and the final freight runs in 1973, the rail lines were abandoned or removed. As a result, many of the small towns that popped up along the railroad in the 1880s were also abandoned.

In recent years, the Northern Panhandle has developed a billion dollar tourism industry, marketing heavily on its two largest attractions: the Grave Creek Mound and the West Virginia State Penitentiary—both of which are located in Marshall County. The Grave Creek Mound is the largest conical burial mound in the United States, having been built by the Adena people in 250-150 B.C. In 1978, the Delf Norona Museum opened as part of the Grave Creek Mound Archaeological Complex, offering exhibits and lectures on the Mound and the Adena people. After a series of riots, escapes, and violations due to overcrowding, the West Virginia State Penitentiary closed as a prison. The building has since been reopened as a tourist attraction, offering tours and special events to visitors (Marshall County Tourism 2015).

New River-Greenbrier Valley and Mountain Lakes

At the turn of the twentieth century, residents of central and southern West Virginia were engaged heavily in agriculture or other closely related fields. This remained the status quo until after World War II. Improving road networks and expanded industrial and retail activities resulted in a more diverse job market that provided residents with employment options beyond agriculture and coal mining. Agriculture, however, remains an important industry in these regions, with active farming evident in the general Project vicinity. Numerous historic-period farmsteads and agriculture related architectural resources are extant. These include former mills such as Cook's Mill near Greenville in Monroe County, Beaver Mill (NR#01000776) in the vicinity of Craigsville, off of County Route 5, in Nicholas County, and farmsteads located along three Lick Road, near Tulley Ridge in Lewis County; along County Road 29, near Springdale in Fayette County; and near Williamsburg and Trout in Greenbrier County.

Recreational hunting has been and continues to be a popular activity within the project APE. Dozens of local sportsmen's clubs are active and many lease hunting rights from corporate owned land that is used for logging and mining. Seasonal hunting cabins have been built in many areas. Some have been used for decades, while others are of much more recent construction.

Hunting for sport began to gain popularity during the late nineteenth century. Private hunting and fishing clubs began to be established by successful businessmen. These organizations conferred social status upon their members as well as encouraged participation in outdoor sports. Just as hunting and fishing gained in popularity as recreational pursuits, however, fish and game populations plummeted as a result of lumbering, coal mining, and agricultural practices that obliterated much of their natural habitat. Newly minted sportsmen responded by lobbying for the establishment of

conservation programs at the state and national levels. Their efforts were in part responsible for the establishment of many state and national parks during the late nineteenth and early twentieth centuries (Miner 2001:42).

Residents of rural areas, such as Greenbrier, Nicholas, and Summers counties, often looked down upon the urban recreational sportsman. Particularly during the late nineteenth through the mid-twentieth century, hunting often was vital to providing sufficiently for a family and insuring variety in diet. These types of socioeconomic and cultural differences distinguished rural hunters from their urban counterparts. Management of game refuges, especially in the form of restrictions on hunting certain species, limiting hunting to certain seasons, and issuing licenses to hunt, were not welcomed by rural hunters.

The sportsmen's movement prevailed, however, more as a result of simple economics and a quickly proven record of success. The social and economic status of the upper-class sportsmen assured that they had the means to influence public policy. Just as important, the rapid rebound of game populations in designated refuges demonstrated that management principles could benefit everyone, not just an elite few (Miner 2001:44-45). By the late twentieth century, sportsmen's clubs of all stripes and in all parts of the country adhered to wildlife management principles.

Many state fish, game, and wildlife agencies have facilitated hunting leases between sportsmen and landowners by providing educational information with regard to their rights and obligations under such agreements, as well as the financial, environmental, and recreational benefits that can accrue. Private businesses also have sprung up to connect interested sportsmen with willing landowners. Demand for such leases is increasing, especially in areas where game is plentiful. For timber landowners, the revenue from hunting leases can match, or even outpace, income from selling timber.

In the relative vicinity of the Project APE, a large swath of forestland in northern Greenbrier County is owned by the MeadWestvaco Corporation, which manages the forests for lumber production and coal mining. This area has been used for such purposes for more than a century. Like many timber landowners, MeadWestvaco has entered into a series of hunting leases to generate additional revenue. The Quinwood Rod & Gun Club, a local hunting club, is engaged in a current hunting lease with Meadwestvaco. Similar hunting lease agreements are common elsewhere in the project APE, as evidenced by the numerous signs that were posted indicating the names of local gun clubs with hunting rights on a particular parcel.

REFERENCES

Appalachian Forest Heritage Area (AFHA)
2015 "Appalachian Forest Heritage Area." Published online at http://www.appalachianforest.us. Accessed 3 January 2015.

Ambler, Charles Henry
1933 A *History of West Virginia.* Prentice-Hall, Inc., New York, New York.

Anonymous
n.d.a "The Battle of Lewisburg." Brochure published by the Greenbrier County Convention & Visitors Bureau, the West Virginia Department of Culture and History, the United States Park Service, United States Department of the Interior, and the Lewisburg Foundation.

1928 "Sinking Creek Raid." Published online at http://www.wvculture.org/history/civilwar/sinkingcreek01.html. Accessed 3 January 2015.

Callahan, James Morton
1913 Semi-Centennial History of West Virginia: With Special Articles on Development and Resources. Semi-Centennial Commission of West Virginia.

Caruso, John A.
1959 The Appalachian Frontier: America's First Surge Westward. The Bobbs-Merill Company, Inc., Indianapolis.

Case, Bill
1985a "Monongahela Forest Off Beaten Path for People, Wildlife." *The Charleston Gazette*. 29 August 1985. Monongahela National Forest newspaper clipping file. On file at the West Virginia Archives and History Library, The Cultural Center, Charleston, WV.

1985b "Officials Back off Forest Development Plan." *The Charleston Gazette*. 29 August 1985. Monongahela National Forest newspaper clipping file. On file at the West Virginia Archives and History Library, The Cultural Center, Charleston, WV.

Comstock, Jim, ed.
1974 The West Virginia Heritage Encyclopedia, Supplemental Series. Vol. 6, Harrison, Cabell, Wirt, and Greenbrier Counties. Jim Comstock, Richwood, WV.

1976a The West Virginia Heritage Encyclopedia. Vol. 9, Garnett, William to Greenbrier County. Jim Comstock, Richwood, WV.

1976b The West Virginia Heritage Encyclopedia. Vol. 16, Morris, Benjamin to Ohio valley. Jim Comstock, Richwood, WV.

Conley, Phil.
1960 History of the West Virginia Coal Industry. Education Foundation, Inc., Charleston, WV.

Cook, Roy Bird.
1928 Battle of Droop Mountain." Originally published in West Virginia Review (October 1928). Published online at http://www.wvculture.org/history/civilwar/droopmountain01.html. Accessed 3 January 2015.

Core, Earl L.
1979 The Monongalia Story: A Bicentennial History, Vol. II: The Pioneers. McClain Printing: Parsons, WV.

1979 The Monongalia Story: A Bicentennial History, Vol. III: Discord. McClain Printing: Parsons, WV.

Davis, Dorothy
1970 *History of Harrison County, West Virginia*. American Association of University Women: Parsons, WV.

DeBow, J.D.B.
1854 Statistical View of the United States, being a Compendium of the Seventh Census. Senate Printer, Washington, D.C.

Department of the Interior, Census Office
1883 Report on the Manufactures of the United States at the Tenth Census, "Report on the Iron and Steel Industries of the United States." Government Printing Office: Washington, D.C.

1888 Report on Mining Industries of the U.S. Census of 1880. Government Printing Office: Washington, D.C.

1890 Population of the United States at the Eleventh Census: 1890, Part 1, Population,Table 4, "Population of States and Counties, at each Census, 1790 to 1890." Government Printing Office: Washington, D.C.

1900 Report on Agriculture and Manufactures of the U.S. Census of 1900. Government Printing Office: Washington, D.C.

1923 Report on Manufactures of the Fourteenth Census of the U.S. Government Printing Office: Washington, D.C.

Dilger Robert J. and James Marshall
2002 "West Virginia County Histories." Institute for Public Affairs, West Virginia University. www.polsci.wvu.edu/wv.

Fleming, A.B.
1911 A History of the Fairmont Coal Region. In *West Virginia Mining Institute Proceedings*. Fairmont Printing and Lithographing Company: Fairmont, WV).

Fones-Wolf, Ken
2007 Glass Towns: Industry, Labor, and Political Economy in Appalachia, 1890s-1930s. University of Illinois, Chicago, Illinois.

Graybill, Henry B.
1950 "The Story of the Greenbrier Region." *West Virginia State Magazine* 1:10 (1950), 5-7,19, 21-23, 30-34.

Hennen, Ray V.
1914 West Virginia Geological Survey: Marion, Monongahela, Taylor, and Preston Counties Wheeling News Lith: Wheeling, WV.

James, Thomas O.
2003 The Fokker Aircraft Legacy in West Virginia. Marshall County Historical Society, Moundsville, West Virginia. www.lindapages.com/marshall/tomjames/fokker.htm.

Lewis, Virgil Anson
1912 *History and Government of West Virginia*. American Book Company, New York.

Lough, Glenn
1969 *Now and Long Ago: A History of the Marion County Area*. Marion County Historical Society: Fairmont, WV.

Marshall County Historical Society
1984 *History of Marshall County, West Virginia*. Walsworth Publishing, Salem, Virginia.

Marshall County Tourism Committee
2012 Marshall County Tourism. Accessed 3 January 2015. Marshall County Tourism Committee, Moundsville, West Virginia, March 2004. www.marshallcountytourism.com.

McBride, W. Stephen, Kim A. McBride, and J. David McBride
1996 *Frontier Defense of the Greenbrier and Middle New River Country*. Prepared for Summers County Historic Landmarks Commission, Hinton, West Virginia. Prepared by Program for Cultural Resource Assessment, University of Kentucky, Lexington, Kentucky.

McConnell, Michael N.
1992 A Country Between: The Upper Ohio Valley and Its Peoples, 1724-1774. University of Nebraska, Lincoln, Nebraska.

Miner, Curt
2001 "Hardhat Hunters: The Democratization of Recreational Hunting in Twentieth Century Pennsylvania." *Journal of Sport History* 28 (1): 41-62

Moreland, James R.
1940 "The Early Cheat Mountain Iron Works," typescript. West Virginia and Regional History Collection: Morgantown, WV.

Nicholas County Historical and Genealogical Society, Inc.
1985 *Nicholas County West Virginia History 1985*. Nicholas County Historical and Society, Summersville, WV.

PPG Industries, Inc.
2010 PPG Worldwide Locations – North America – Natrium, WV. [Accessed 3 January 2015) PPG Industries Website. 2010. www.quickbase.com/up/beijf2zi4/g/rcu/ej/va/Natrium-NA.html

Powell, Scott
1925 History of Marshall County: From Forest to Field. Moundsville, West Virginia.

Rice, Otis K.
1970 *The Allegheny Frontier: West Virginia Beginnings*, 1730-1830. University Press of Kentucky: Lexington.

1986 *A History of Greenbrier County*. Greenbrier Historical Society, Lewisburg, WV.

Rice, Otis K. and Stephen W. Brown.
1993 *West Virginia, A History*. 2nd ed. University Press of Kentucky: Lexington.

Riddel, Frank S.
2008 *The Historical Atlas of West Virginia*. West Virginia University Press: Morgantown.
Ross, Phil
1994 The Scotts Run Coalfield from the Great War to the Great Depression: A Study in Overdevelopment. In *West Virginia History*, Vol. 53. West Virginia Division of Culture and History: Charleston, WV.

Siemon, Edward J. III, et al.

1995 Cultural Resources Technical Report, Volume I—Alignment Selection SDEIS, Appalachian *Corridor H*. Prepared by Michael Baker Jr., Inc. for the West Virginia Department of Transportation, Charleston, WV.

Taylor County Historical and Genealogical Society, Inc.
1986 *A History of Taylor County West Virginia*. Taylor County Historical and Genealogical Society: Grafton, WV.

United States Department of Agriculture, Forest Service Eastern Region (USDA)
1939 Map of the Southern Portion Monongahela National Forest West Virginia. U.S. Department of Agriculture, Washington, DC. On file at the West Virginia Archives and History Library, The Cultural Center, Charleston, WV.

West Virginia Department of Mines.
1910 Annual Report of the Department of Mines, for the Fiscal Year Ending June 20, 1910. Charleston, WV.

1920 Annual Report of the Department of Mines, for the Fiscal Year Ending June 20, 1920. Charleston, WV.

West Virginia Division of Tourism (WVDT)
2014 "West Virginia Regional Map." Published online at http://www.wvcommerce.org. Accessed 3 January 2015.

Zimolak, Chester
1977 Changing Ownership Patterns in the West Virginia Coal Industry: Oligopoly and its Geographic Impact. In *West Virginia and Appalachia: Selected Readings*. Kendall & Hunt: Dubuque, IA.