

*Draft Report
Reconnaissance-level Architectural Survey
for the Proposed Expansion/Modification
of the Beech Ridge Wind Energy Facility,
Greenbrier and Nicholas Counties,
West Virginia*

WVDCH File #06-147-GB



GRAY & PAPE, INC.
ARCHAEOLOGY • HISTORY • HISTORIC PRESERVATION

AUGUST 22, 2011

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Project No. 10-62201

Final Report
**RECONNAISSANCE-LEVEL ARCHITECTURAL SURVEY FOR
THE PROPOSED EXPANSION/MODIFICATION OF
THE BEECH RIDGE WIND ENERGY FACILITY,
GREENBRIER AND NICHOLAS COUNTIES, WEST VIRGINIA**

WVDCH File #06-147-GB

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22 August 2011

ABSTRACT

Gray & Pape, Inc., has contracted with Invenergy, LLC, to undertake a reconnaissance-level, historical architectural survey for the proposed expansion/modification of the Beech Ridge Wind Energy Facility in Greenbrier and Nicholas counties, West Virginia. The proposed modification is subject to federal review under Section 106 of the National Historic Preservation Act and under the National Environmental Policy Act. As defined in 36 CFR Part 800, the proposed modification constitutes an undertaking, as it requires “a Federal permit, license, or approval.” The U.S. Fish & Wildlife Service is serving as the lead Federal agency for the undertaking and is overseeing the review process. The Public Service Commission of West Virginia is serving as the lead review agency for compliance with state laws and regulations pertaining to the undertaking, including 150CSR30 governing siting certificates for exempt wholesale generators. As the State Historic Preservation Office, the West Virginia Division of Culture and History is fulfilling review responsibilities as required for both the state and Federal review processes.

The Beech Ridge Wind Energy Facility was granted a Siting Certificate by the Public Service Commission on August 26, 2006, and on reconsideration, on January 11, 2007. The approval included 124 wind turbine generators of 1.5 megawatts each for a total of 186 megawatts of generating capacity. A historical architectural survey was conducted in 2006-2007 as part of the review process for the project. Historic-period resources were identified and evaluated for National Register eligibility, a determination of effects was completed for National Register-eligible properties, and mitigation for adverse effects was conducted. Construction of the Beech Ridge Facility began in April 2009.

On December 8, 2009, a United States District Court in the State of Maryland enjoined the construction of all but 40 centrally located WTGs (then being constructed) until further specified actions were taken. Pursuant to a settlement agreement among the parties to the injunction proceeding, on January 26, 2010, the District Court amended its December 8, 2009, Order to allow the opportunity to complete construction of a wind energy facility provided a number of conditions were met, including the movement of a large number of WTGs from the eastern portion of Greenbrier County to the west. This amended Order also allowed the immediate completion of 27 additional WTGs for a total of 67 WTGs. The total of 67 WTGs were completed and brought online between April and August 2010.

In order to comply with the portion of the Amended Order of the District Court requiring movement of certain WTGs from the eastern portion of the Facility to locations in the west, Invenergy LLC designed and planned for an expansion/modification of the Beech Ridge Wind Energy Facility proposed to consist of the construction of 33 wind turbine generators immediately to the west of the original footprint for the Beech Ridge Facility.

Currently, the proposed expansion/modification of the Beech Ridge Wind Energy Facility will include the construction of up to 33 wind turbine generators. To allow flexibility in placement of the wind turbine generators, a total of 47 sites are being evaluated for construction. Commercial operation of the 33 turbines is expected to occur immediately upon completion of construction.

The cultural resources investigations for this undertaking are being conducted within the regulatory frameworks of the National Historic Preservation Act and the National Environmental Policy Act, as well as state review policies and regulations. Following the precedent established in 2006-2007, a 5-mile Area of Potential Effects (approximately 103,450 acres or 162 square miles) was defined around the 47 locations being evaluated for wind turbine generators at the outset of cultural resources investigations.

Within the defined Area of Potential Effects, Gray & Pape's reconnaissance-level historical architectural survey identified a total of 206 historic-period resources (more than 50 years old) that are likely to have one or more wind turbine generators within their viewsheds if the undertaking is constructed. All newly identified resources with anticipated views of the undertaking were documented using West Virginia Historic Property Inventory forms. Of these newly identified resources, only the Mt. Urim Baptist Church (NI-0026-0192) and its associated cemetery (Field Number 175) are recommended eligible for inclusion in the National Register of Historic Places based on eligibility criteria specified in 36 CFR 60.4.

Portions of the Area of Potential Effects for the current undertaking overlap the Area of Potential Effects delineated for the 2006-2007 investigations. For historic-period resources identified during 2006-2007, only those that had experienced major changes and are anticipated to have views of the undertaking were documented with updated inventory forms. "Major changes" include, but are not limited to, alterations such as new additions, demolition in whole or in part, and/or replacement or removal of character-defining historic fabric such as original sash, siding, doors, and decorative elements. The previously identified National Register-eligible Duo Historic District also is likely to have views of the undertaking. Inventory forms for individual resources within the district that have experienced major changes since 2006-2007 have been updated.

An acoustic analysis was conducted to ascertain if the undertaking will have audible effects on historic properties within the Area of Potential Effects. Four previously identified National Register-eligible resources are located within or close to the 1-mile buffer established for the acoustical study. They are the Duo Historic District, the Olive Baptist Church (GB-0038-0107B), a rural cemetery (Field Number 00046), and a dwelling (GB-0038-0099). Only the Duo Historic District has resources that have seen major changes since 2007. No major changes have been undertaken at the three individual resources. The findings of this analysis indicate, however, that no resources identified to date that are eligible for the National Register of Historic Places will experience audible effects from the undertaking.

TABLE OF CONTENTS

ABSTRACT.....	i
TABLE OF CONTENTS.....	iii
LIST OF APPENDICES.....	v
LIST OF FIGURES	vi
LIST OF PLATES	vii
1.0 INTRODUCTION	1
1.1 History of the Beech Ridge Wind Energy Facility	3
1.2 Historical Architectural Survey Background.....	3
1.3 Description of the Undertaking.....	4
1.4 Report Organization.....	6
1.5 Acknowledgements.....	6
2.0 RESEARCH DESIGN AND METHODS.....	8
2.1 Compliance with the Section 106 Review Process.....	8
2.2 National Register of Historic Places Criteria for Evaluation of Eligibility	10
2.2.1 Criteria Considerations	11
2.2.2 Resource Types.....	12
2.2.3 Cultural Landscapes.....	12
2.2.4 Integrity.....	14
2.3 Research Design and Methods.....	14
2.3.1 Archival Research.....	14
2.3.2 Field Methods	15
2.3.3 Viewshed Analysis.....	17
2.3.4 Acoustical Study	21
3.0 HISTORIC CONTEXT	23
3.1 Location of the Undertaking	23
3.2 Coal Mining	23
3.2.1 Life in Coal Company Towns.....	33
3.3 Transportation	36
3.4 Communities	38
3.4.1 Leivasy	38
3.4.2 Carl and Green Valley	39
3.4.3 Clearco	39
3.4.4 Duo.....	45
3.4.5 Anjean.....	47
3.4.6 Marfrance.....	53
3.4.7 Quinwood.....	53
3.4.8 Crichton.....	56
3.4.9 Leslie.....	56

TABLE OF CONTENTS (CONT'D)

3.4.10 Bellburn.....	57
3.4.11 Orient Hill	57
3.5 Architecture.....	60
3.5.1 Company Towns	60
3.5.2 Pyramid Cottage.....	62
3.5.2 Bungalow	62
3.5.3 Gable-Front.....	63
3.5.4 Side-Gable One-Story.....	63
3.6 Churches in Greenbrier and Nicholas Counties.....	64
3.6.1 Baptist Denomination	64
3.6.2 Methodist Denomination	65
3.7 Public Education and Schools.....	65
4.0 RESULTS OF INVESTIGATIONS	67
4.1 Historic Architectural Resources	67
4.1.1 Previous Investigations.....	67
4.1.2 Current Investigation	68
4.2 Landscapes and Rural Historic Districts.....	70
5.0 RECOMMENDATIONS.....	75
5.1 Historic Districts	75
5.1.1 Marfrance.....	76
5.1.2 Quinwood.....	77
5.1.3 Crichton.....	78
5.1.4 Leslie.....	78
5.1.5 Bellburn.....	79
5.1.6 Orient Hill	80
5.1.7 Leivasy.....	80
5.1.8 Duo.....	81
5.2 Multiple Property Submissions.....	82
5.2.1 Rural Churches.....	83
5.2.2 Rural Cemeteries.....	86
5.3 Individual Resources.....	87
5.4 Rural and Historic Landscapes	87
6.0 REFERENCES CITED.....	89

LIST OF APPENDICES

APPENDIX A – Location Maps for Architectural Resources Documented within the Area of Potential Effects

APPENDIX B – Representative Landscape Photos

APPENDIX C – All Newly and Previously Identified Resources within the Area of Potential Effects

APPENDIX D – All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

APPENDIX E – Results of Investigations and NRHP Eligibility Recommendations

APPENDIX F – All Newly and Previously Inventoried Resources Not Documented with HPI Forms

APPENDIX G – WVDCH Historic Property Inventory Forms

APPENDIX H – Photo Logs

APPENDIX I – Acoustic Study of Proposed Expansion/Modification of Beech Ridge Wind Farm, Greenbrier County, WV

LIST OF FIGURES

Figure 1. Location of Undertaking in Greenbrier and Nicholas Counties, West Virginia	2
Figure 2. Location of the Undertaking’s Defined Area of Potential Effects and 2006-2007 Area of Potential Effects of the Beech Ridge Wind Energy Facility in Greenbrier and Nicholas Counties, West Virginia.....	5
Figure 3. Detail of 1887 Map of Greenbrier County (Harrison and Handley 1887)	25
Figure 4. Detail of 1921 Topographic Map of Nicholas County Showing Locations of Coal Mining Communities (West Virginia Geological Survey 1921)	31
Figure 5. Detail of 1936 Topographic Map of Greenbrier County Showing Locations of Coal Mining Communities (West Virginia Geological Survey 1936)	32
Figure 6. Clear Fork Coal Company Store at Clearco, Ca. 1930 (DellaMea 2011)	41
Figure 7. Company Housing at Clearco, Ca. 1930 (DellaMea 2011).....	42
Figure 8. Abandoned Tipple at Clearco, Ca. 2000 (DellaMea 2011).....	43
Figure 9. Abandoned Workshop at Clearco, Ca. 2000 (DellaMea 2011).....	44
Figure 10. Ca. 1940 Aerial View of Duo (DellaMea 2011)	46
Figure 11. Ca. 1935 Aerial View of Anjean, Greenbrier County (DellaMea 2011).....	48
Figure 12. Leckie Smokeless Coal Company Store at Anjean, Ca. 1990 (DellaMea 2011) .	49
Figure 13. Preparation Plant Formerly Owned by Leckie Smokeless Coal Company During Demolition in 2001 (DellaMea 2011).....	51
Figure 14. Anjean Tipple, Ca. 1950 (DellaMea 2011)	52
Figure 15. Imperial Smokeless Coal Company Store (Left Half of Building), Ca. 2005 (DellaMea 2011)	54
Figure 16. Coal Miners’ Memorial Park in Quinwood on Site of Company Store in 2008 (DellaMea 2011)	55
Figure 17. Greenbrier Smokeless Coal Company Store in Bellburn in 1925 (DellaMea 2011)	58
Figure 18. A. T. Massey Company Loadout in Bellburn, Ca. 2000 (DellaMea 2011).....	59

Appendix A

Figure A1. Location Map for Historic-Period Resources within the Area of Potential Effects	
Figure A2. Location Map for Historic-Period Resources within the Area of Potential Effects	
Figure A3. Location Map for Historic-Period Resources within the Area of Potential Effects	
Figure A4. Location Map for Historic-Period Resources within the Area of Potential Effects	
Figure A5. Topographic Viewshed	
Figure A6. Vegetated Viewshed	

LIST OF PLATES

Plate 1. Mt. Urim Baptist Church (NI-0026-0192), facing east.....	84
Plate 2. Mt. Urim Baptist Church (NI-0026-0192), facing southeast.	84
Plate 3. Mt. Urim Baptist Church cemetery (Field Number 175), facing north/northeast. ...	85
Plate 4. Mt. Urim Baptist Church cemetery (Field Number 175), facing south/southeast. ...	85

Appendix B

Plate B1. Landscape along West Virginia Route 20 just south of Leivasy, facing north.	
Plate B2. Landscape along Pittsenberger Road, facing northeast.	
Plate B3. Strip mine southwest of County Route 13-7, facing southwest.	
Plate B4. Strip mine southwest of County Route 13-7, facing west.	
Plate B5. Landscape along County Route 13-7, facing southeast.	
Plate B6. Landscape along County Route 17, facing northwest.	
Plate B7. Landscape along County Route 17, facing southeast.	
Plate B8. Landscape along County Route 17/Old Nicholas Road, facing southeast.	
Plate B9. Landscape along County Route 1 west of Anjean, facing east.	
Plate B10. Landscape along County Route 1 near Kessler, facing south.	
Plate B11. Landscape along County Route 6, facing south/southwest.	
Plate B12. Landscape along County Route 6, facing east.	
Plate B13. Landscape along County Route 6, facing north.	
Plate B14. Landscape along County Route 6, facing south.	
Plate B15. Landscape along County Route 6, facing north.	
Plate B16. Landscape along County Route 2, facing north.	
Plate B17. Landscape along County Route 2, facing south/southwest.	
Plate B18. Cleared pasture land along County Route 2, facing northeast.	
Plate B19. Cleared pasture land along County Route 2, facing south/southeast.	
Plate B20. Mountainous landscape along County Route 2, facing east/northeast.	
Plate B21. Landscape along County Route 2 near Allen Knob, facing northeast.	
Plate B22. Landscape along County Route 2 near Allen Knob, facing southwest.	

LIST OF PLATES (CONT'D)

- Plate B23. Landscape along County Route 2, facing north.
- Plate B24. Orient Hill from cemetery, facing northeast.
- Plate B25. Representative view of dwellings and railroad line in Leslie, facing west.
- Plate B26. Representative view of dwellings in Leslie, facing northwest.
- Plate B27. Leslie post office along West Virginia Route 20, facing northwest.
- Plate B28. Access road and railroad tracks at upper part of Leslie, facing northeast.
- Plate B29. Access road into upper part of Leslie, facing northwest.
- Plate B30. Streetscape within Leslie, facing southeast.
- Plate B31. Streetscape along Bellburn Road at railroad tracks and stream, facing northwest.
- Plate B32. Streetscape along Bellburn Road at railroad tracks and stream, facing northwest.
- Plate B33. Streetscape along Bellburn Road beyond railroad tracks, facing north/northeast.
- Plate B34. Streetscape along Bellburn Road near railroad tracks and stream, facing southeast.
- Plate B35. Streetscape along Bellburn Road near railroad tracks and stream, facing east.
- Plate B36. Streetscape along Bellburn Road at former spur line to mine site, facing northwest.
- Plate B37. Streetscape along Bellburn Road near former worker housing, facing northeast.
- Plate B38. Streetscape along First Street in Bellburn, facing northwest.
- Plate B39. Streetscape along Second Street in Bellburn, facing northeast.
- Plate B40. Abandoned mine site in Bellburn, facing northwest.
- Plate B41. Abandoned mine site in Bellburn, facing southwest.
- Plate B42. Streetscape along County Route 20-8/School Street in Crichton, facing west.
- Plate B43. Streetscape along Crichton Avenue in Crichton, facing west.
- Plate B44. Representative dwelling in Crichton, facing southeast.
- Plate B45. Representative dwellings in Crichton, facing northwest.
- Plate B46. Streetscape along Crichton Avenue in Crichton, facing southeast.
- Plate B47. Streetscape along West Virginia Route 20 in Quinwood, facing north.
- Plate B48. Streetscape along East Amick Street in Quinwood, facing east/northeast.
- Plate B49. Miners Memorial Park in Quinwood, facing northwest.
- Plate B50. Quinwood United Methodist Church with mountains in background, facing southeast.
- Plate B51. Former bank building on Bell Boulevard in Quinwood, facing southeast.

LIST OF PLATES (CONT'D)

Plate B52. Representative worker housing on First Street in Quinwood, facing southeast.

Plate B53. Streetscape along County Route 44-1/Littlepage Drive in Quinwood, facing northeast.

Plate B54. Streetscape along West Virginia Route 20 in Quinwood, facing northeast.

Plate B55. Streetscape along West Virginia Route 20 in Quinwood, facing northeast.

Plate B56. Railroad tracks north of Quinwood, facing northeast.

Plate B57. Streetscape along Marfrance Road in Marfrance, facing southwest.

Plate B58. Streetscape along service alley in Marfrance, facing northeast.

Plate B59. Streetscape along County Route 2-7 in Marfrance, facing southwest.

Plate B60. Streetscape from service alley in Marfrance, facing northwest.

Plate B61. Landscape along County Route 2-10, facing northeast.

Plate B62. Landscape along County Route 2-10, facing south.

Plate B63. Landscape along County Route 2-10, facing southwest.

Plate B64. Landscape along County Route 2-10, facing north.

Plate B65. Landscape along County Route 2, facing west.

Plate B66. Landscape along County Route 2, facing south.

Plate B67. Landscape along County Route 2, facing east.

Plate B68. Landscape along County Route 2/Russellville Road, facing south.

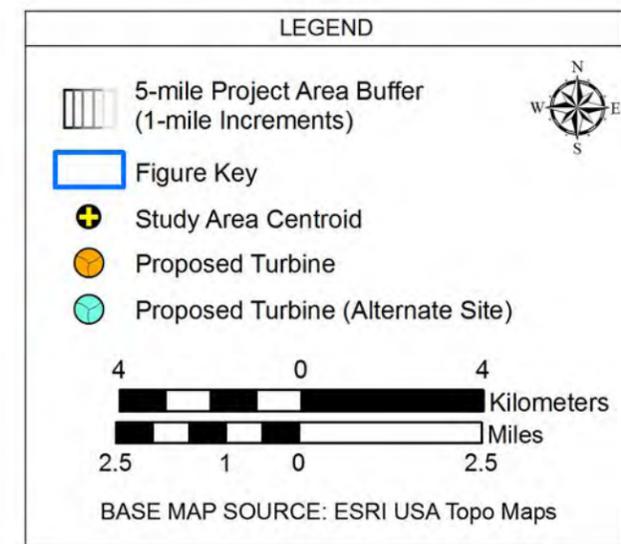
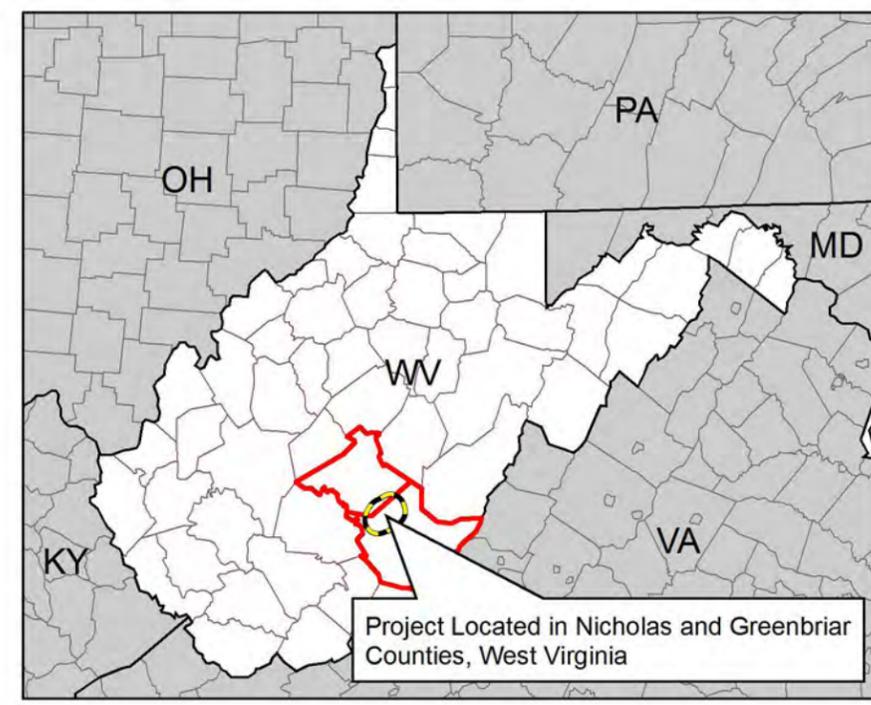
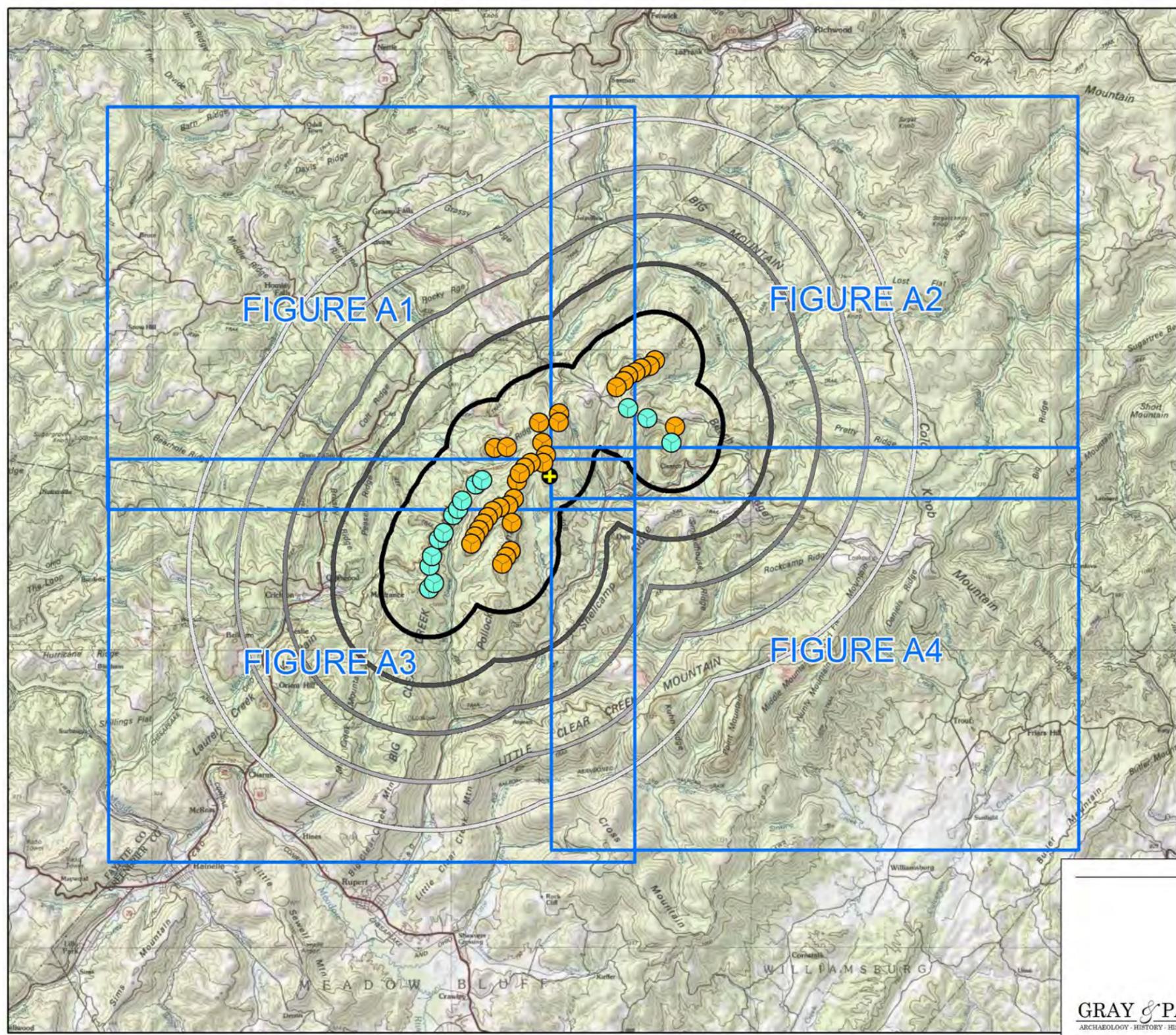
Plate B69. Landscape along County Route 2/Russellville Road, facing northwest.

Plate B70. Landscape from County Route 2/Russellville Road, facing southwest.

1.0 INTRODUCTION

Gray & Pape, Inc., (Gray & Pape) has contracted with Invenergy, LLC, to complete a reconnaissance-level, historical architectural survey for the proposed expansion/modification of the Beech Ridge Wind Energy Facility in Greenbrier and Nicholas counties, West Virginia (Figure 1). The proposed expansion/modification (hereafter referred to as the expansion) is subject to federal review under Section 106 of the National Historic Preservation Act (NHPA) and under the National Environmental Policy Act (NEPA). As defined in 36 CFR Part 800, the proposed expansion constitutes an undertaking, as it requires “a Federal permit, license, or approval” (United States Government Printing Office [USGPO] 2010a). From this point forward, the proposed expansion shall be referred to as the Undertaking. The U.S. Fish & Wildlife Service (USFWS) is serving as the lead Federal agency for the Undertaking and is overseeing the review process. The Public Service Commission of West Virginia (WVPSC) is serving as the lead review agency for compliance with state laws and regulations pertaining to the Undertaking, including 150CSR30 governing siting certificates for exempt wholesale generators (West Virginia Secretary of State 2011). As the State Historic Preservation Office, the West Virginia Division of Culture and History (WVDCH) is fulfilling review responsibilities as required for both the state and Federal review processes.

For the Beech Ridge Undertaking, Gray & Pape developed and refined a research design and methodology for the cultural resources investigations described herein. The research design and methods were established with reference to the *West Virginia National Register and Architecture/History Survey Manual* (WVDCH 2005) and the U.S. Secretary of the Interior’s *Standards and Guidelines for Archaeology and Historic Preservation* (United States Department of the Interior [USDI] 1983). The preparation of the survey report and any recommendations concerning the National Register eligibility of historic architectural resources identified during the survey will be made with reference to 36 CFR Part 800: *Protection of Historic Properties* (USGPO 2010a); 36 CFR 60: *National Register of Historic Places* [USGPO 2010b]; the Secretary of the Interior’s *Standards and Guidelines for Archaeology and Historic Preservation* (1983); National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (USDI 1995); and National Register Bulletin 16B, *How to Complete the National Register Registration Form* (1997). The Gray & Pape Project Manager, Principal Investigator, and Project Architectural Historians completing this survey exceed the professional qualification standards of the USDI.



Location of Undertaking in Greenbrier and Nicholas Counties, West Virginia

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Figure 1

1.1 History of the Beech Ridge Wind Energy Facility

The Beech Ridge Wind Energy Facility was granted a Siting Certificate by the Public Service Commission on August 26, 2006, and on reconsideration, on January 11, 2007. The approval included 124 wind turbine generators of 1.5 megawatts each for a total of 186 megawatts of generating capacity. A historical architectural survey was conducted in 2006-2007 as part of the review process for the project. Historic-period resources (those more than 50 years old at the time of survey) were identified and evaluated for National Register eligibility, a determination of effects was completed for National Register-eligible properties, and mitigation for adverse effects completed. Construction of the Beech Ridge Facility began in April 2009.

On December 8, 2009, a United States District Court in the State of Maryland enjoined the construction of all but 40 centrally located WTGs (then being constructed) until further specified actions were taken. Pursuant to a settlement agreement among the parties to the injunction proceeding, on January 26, 2010, the District Court amended its December 8, 2009, Order to allow the opportunity to complete construction of a wind energy facility provided a number of conditions were met, including the movement of a large number of WTGs from the eastern portion of Greenbrier County to the west. This amended Order also allowed the immediate completion of 27 additional WTGs for a total of 67 WTGs. The total of 67 WTGs were completed and brought online between April and August 2010.

In order to comply with the portion of the Amended Order of the District Court requiring movement of certain WTGs from the eastern portion of the Facility to locations in the west, Invenergy LLC designed and planned for an expansion/modification of the Beech Ridge Wind Energy Facility proposed to consist of the construction of 33 wind turbine generators immediately to the west of the original footprint for the Beech Ridge Facility.

1.2 Historical Architectural Survey Background

A reconnaissance-level historical architectural survey for the Beech Ridge Wind Energy Facility was completed in 2006–2007. Investigations were conducted with the PSC and WVDCH acting as the lead review agencies in accordance with state law and regulations. There was no Federal involvement in the project, so consequently, the NHPA and NEPA review processes were not triggered. The PSC and WVDCH, however, requested historic architectural investigations be completed in a manner similar to that required under Section 106 of the NHPA, as specified in enabling regulations at 36 CFR Part 800. Consequently, an Area of Potential Effects (APE) was broadly defined as a 5-mile radius around the locations of proposed wind turbine generators (WTGs). Working with BHE Environmental, Gray & Pape prepared a reconnaissance-level survey report for all historic-period architectural resources within this defined APE (O’Bannon and Sweeten 2007).

Architectural resources within the APE that were determined eligible for inclusion in the National Register of Historic Places (NRHP) were subject to a second round of evaluation to assess whether the Beech Ridge Wind Energy Facility would have an effect on these

resources, and if that effect would constitute an adverse effect as defined in 36 CFR Part 800. Visual, noise, and cultural were identified as the three types of effects likely to affect NRHP-eligible resources. An acoustical study indicated that no NRHP-eligible resources within the APE would experience adverse noise effects. Adverse visual and cultural effects on NRHP-eligible resources were identified (BHE Environmental et al. 2008). Mitigation of these adverse effects was addressed in a Memorandum of Agreement, with Invenergy and the WVDCH acting as signatories.

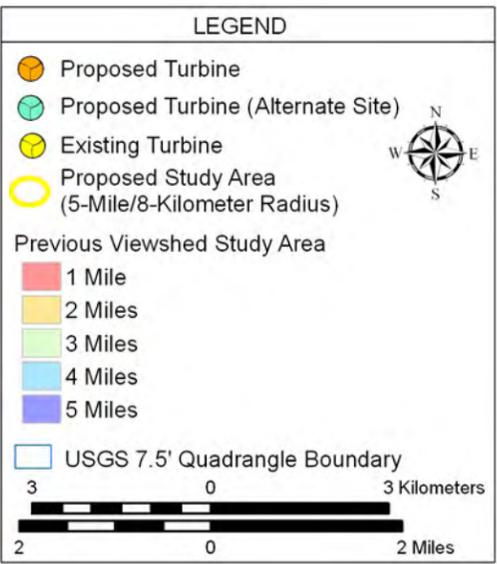
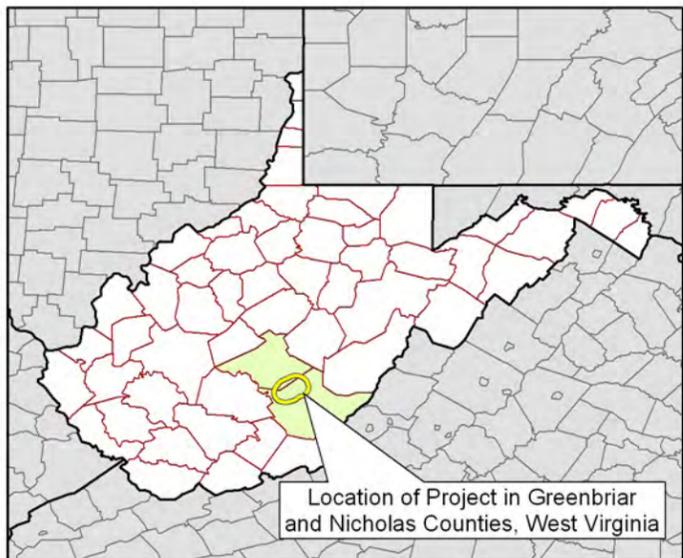
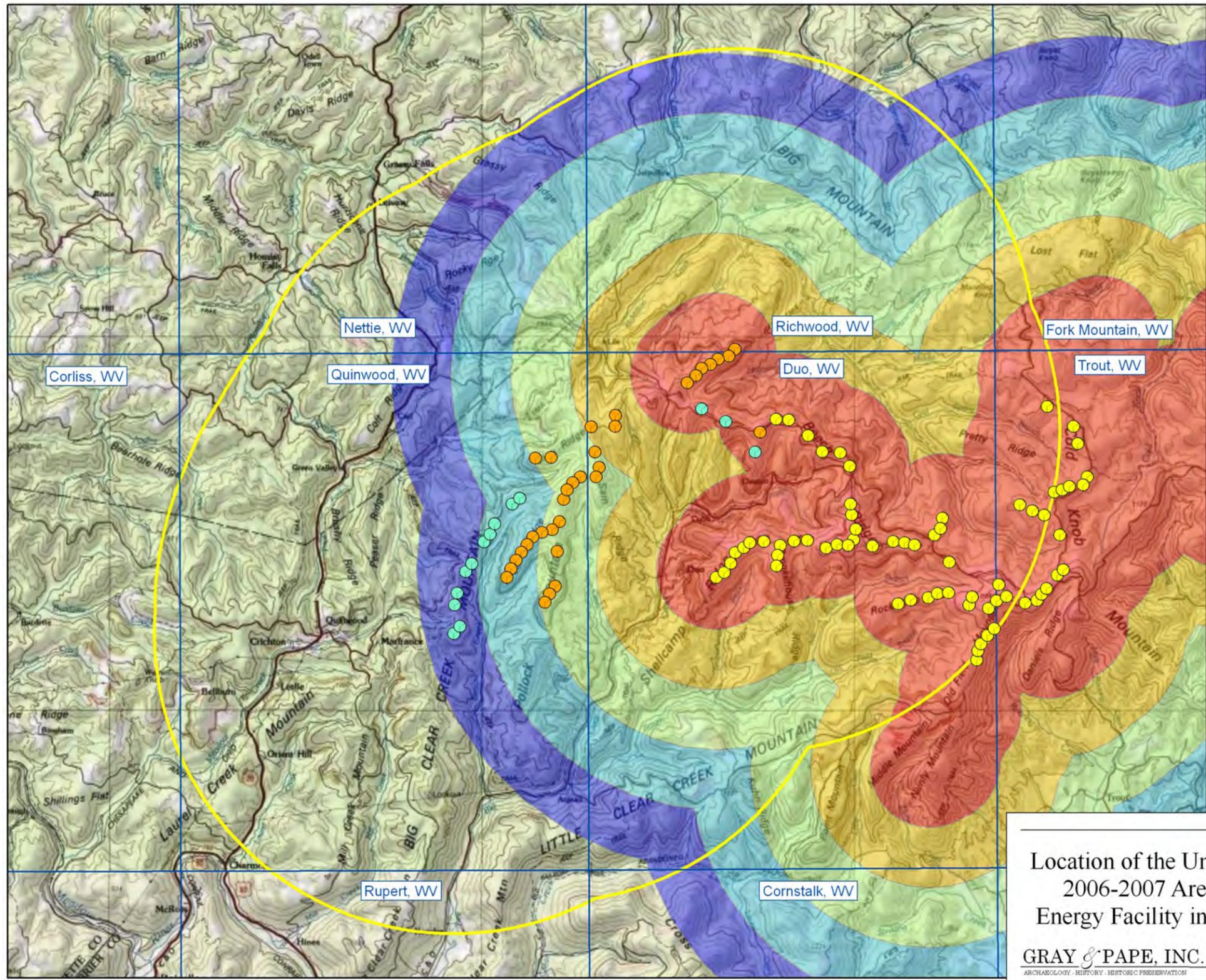
1.3 Description of the Undertaking

A proposed expansion of the Beech Ridge Wind Energy facility is being planned. As noted above, the proposed expansion qualifies as an undertaking because, as specified in 36 CFR Part 800, it “requires a Federal permit, license, or approval” (USGPO 2010a).

The Undertaking is planned to consist of up to 33 WTGs. To allow flexibility in placement of the WTGs, a total of 47 sites are being evaluated for construction of the 33 WTGs. The WTGs will be General Electric (GE) 1.6xle models and associated equipment, with each WTG to be mounted on individual 100-meter tall towers across about 8 square miles of ridgelines in Greenbrier County. The associated equipment includes a 2 MVA transformer at each WTG tower, and 34.5kV underground transmission lines for the electrical collection system that could connect into the existing 34.5/138kV substation or by a supplemental substation located along and directly adjacent to the existing project 138kv overhead transmission line. The service center for the existing facility, which is located in the northern portion of the proposed expansion area, also will serve the expanded facility.

Each WTG incorporates a horizontal-axis propeller that drives a gearbox and generator mounted to the top of a 100-m (328-ft) high tower. A nacelle for weather protection and noise control encloses the gearbox and generator. The 100-m (328-ft) diameter rotor has three blades, which attach to a hub that contains active blade pitch control; this system provides for peak aerodynamic efficiency over a range of wind conditions. The WTGs include the following noise control treatments in their design: impact noise insulation of the gearbox and generator, reduced-noise gearbox, reduced-noise nacelle; vibration isolation mounts, and quieted-design rotor blades. Commercial operation of the final 33 WTGs is expected to occur immediately upon completion of construction.

The historical architectural investigation for the Undertaking is being conducted within the regulatory frameworks of NHPA and NEPA. Following the precedent established in 2006-2007, a 5-mile APE (encompassing approximately 103,450 acres or 162 square miles) for the Undertaking was defined around the locations of proposed WTGs at the outset of Gray & Pape’s historical architectural survey. To establish the broadest possible APE, a 5-mile radius was drawn around the location of each of the 47 sites being evaluated. These radii were merged to create a single APE boundary that extends at least 5 miles around each site being evaluated.



Location of the Undertaking's Defined Area of Potential Effects and 2006-2007 Area of Potential Effects of the Beech Ridge Wind Energy Facility in Greenbrier and Nicholas Counties, West Virginia

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Figure 2

The APE for the Undertaking overlaps with the APE from the 2006-2007 investigation; a total of approximately 72,654 acres (114 square miles) of the current APE was included in the 2006-2007 APE (Figure 2). A historical architectural survey already had been completed by Gray & Pape for the areas in which the overlap exists (O'Bannon and Sweeten 2007). A detailed historic context for Greenbrier and Nicholas counties was developed as part of that effort. Gray & Pape did not duplicate efforts from the previous investigations, but built upon those findings to complete the work described herein.

1.4 Report Organization

This report is organized in 6 sections and 9 appendices. Section 1 provides the introductory material regarding the historic architectural investigation. In Section 2, the survey's research design and methods are presented. Historical contexts are in Section 3. The contexts provide a general discussion of major historical trends and patterns in the Undertaking's defined APE specific to the historic-period resources identified during the course of the current investigation, as well as narratives of communities within the APE. Results of the investigations are described in Section 4. Section 5 contains the report's conclusions and recommendations regarding further work and NRHP eligibility for individual resources, districts, and landscapes within the APE. References cited are provided in Section 6.

Appendix A has the survey maps, which include the locations and inventory numbers for all historic properties that were identified during the course of the investigation as well as a photo key for digital landscape photographs that were taken during fieldwork. The landscape photographs are contained in Appendix B. These photos provide representative views of existing conditions of the landscape within the APE. Appendix C lists in tabular format all of the newly identified and previously identified architectural resources located within the Undertaking's defined APE. Appendix D lists all of the newly and previously identified architectural resources within the APE that are anticipated to have views of the Undertaking. In Appendix E, the findings of the current investigation are presented in tabular format, including NRHP eligibility recommendations for all inventoried resources. Appendix F lists previously and newly identified resources within the APE that were not documented with HPI forms as part of the current investigation because they are not anticipated to have views of the Undertaking. Appendix G has copies of the WVDCH Historic Property Inventory (HPI) forms that were prepared as part of this historical architectural investigation. In Appendix H, photo logs from the fieldwork that took place in October 2010 are provided. Appendix I presents the full text of an acoustical study performed for the Undertaking.

1.5 Acknowledgements

Many individuals and organizations have worked to preserve West Virginia's history and heritage for future generations. For the current investigation, Gray & Pape relied on a number of online resources to gather information about communities in the Undertaking's defined APE. Specifically, Christopher DellaMea's Coal Camp USA website, Frieda Davison's compilations of West Virginia coal mining companies, the West Virginia Encyclopedia website, the West Virginia Office of Miners' Health, Safety, and Training website, the West Virginia University History OnView website, Karen Vuranch's Coal Camp Memories website, and the WVDCH Archive and History website proved to be immensely useful. Staff

members at the Greenbrier County Public Library, the Greenbrier Historical Society, and the West Virginia Archives and History Library also were of great assistance to Gray & Pape's research efforts.

Saratoga Associates Landscape Architects, Architects, Engineers, and Planners, P.C. (Saratoga Associates) prepared the first step of the electronic viewshed analysis for the Undertaking. Acentech Incorporated prepared the acoustical study for the Undertaking.

2.0 RESEARCH DESIGN AND METHODS

The built environment yields immediate evidence of the character of the historic architectural properties that are located in a given area, as well as their relative integrity and ubiquity. A visual record of previous activities and periods of growth or change, therefore, can be discerned through study of the architectural resources in a given area. However, historically significant patterns, trends, and events, as well as association with significant persons are not always immediately apparent through a visual survey alone. Historical research, including review of maps, local histories, and atlases also is necessary to develop a fuller understanding of the influences that shaped an area's development and change over time.

2.1 Compliance with the Section 106 Review Process

Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations stated in 36 CFR Part 800:

seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties, commencing at the early stages of project planning. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties (USGPO 2010a).

The full text of the Federal regulations governing the Section 106 review process are published online at <http://frwebgate1.access.gpo.gov/cgi-bin/TEXTgate.cgi?WAISdocID=9mUY0w/21/1/0&WAISaction=retrieve>. Following is a summary of the Section 106 review process, as published on the ACHP website (<http://www.achp.gov/106summary.html>).

Initiate Section 106 process

The responsible Federal agency first determines whether it has an undertaking that is a type of activity that could affect historic properties. Historic properties are properties that are included in the National Register of Historic Places (NRHP) or that meet the criteria for the NRHP. If so, it must identify the appropriate State Historic Preservation Office/Tribal Historic Preservation Office (SHPO/THPO) to consult with during the process. It should also plan to involve the public, and identify other potential consulting parties. If it determines that it has no undertaking, or that its undertaking is a type of activity that has no potential to affect historic properties, the agency has no further Section 106 obligations.¹

¹ The regulations define the term "THPO" as those tribes that have assumed SHPO responsibilities on their tribal lands and have been certified pursuant to Section 101(d)(2) of the NHPA. Nevertheless, tribes that have not been so certified have the same consultation and concurrence rights as THPOs

Identify historic properties

If the agency's undertaking could affect historic properties, the agency determines the scope of appropriate identification efforts and then proceeds to identify historic properties in the area of potential effects. The agency reviews background information, consults with the SHPO/THPO and others, seeks information from knowledgeable parties, and conducts additional studies as necessary. Districts, sites, buildings, structures, and objects listed in the NRHP are considered; unlisted properties are evaluated against the National Park Service's (NPS) published criteria, in consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that may attach religious or cultural importance to them.

If questions arise about the NRHP eligibility of a given property, the agency may seek a formal determination of eligibility from the NPS. Section 106 review gives equal consideration to properties that have already been included in the NRHP as well as those that have not been so included, but that meet NRHP criteria.

If the agency finds that no historic properties are present or affected, it provides documentation to the SHPO/THPO and, barring any objection in 30 days, proceeds with its undertaking.

If the agency finds that historic properties are present, it proceeds to assess possible adverse effects.

Assess adverse effects

The agency, in consultation with the SHPO/THPO, makes an assessment of adverse effects on the identified historic properties based on criteria found in ACHP's regulations.

If they agree that there will be no adverse effect, the agency proceeds with the undertaking and any agreed-upon conditions.

If (1) they find that there is an adverse effect, or (2) the parties cannot agree and ACHP determines within 15 days that there is an adverse effect, the agency begins consultation to seek ways to avoid, minimize, or mitigate the adverse effects.

Resolve adverse effects

The agency consults to resolve adverse effects with the SHPO/THPO and others, who may include Indian tribes and Native Hawaiian organizations,

when the undertaking takes place, or affects historic properties, on their tribal lands. The practical difference is that during such undertakings, THPOs would be consulted in lieu of the SHPO, while non-certified tribes would be consulted in addition to the SHPO.

local governments, permit or license applicants, and members of the public. ACHP may participate in consultation when there are substantial impacts to important historic properties, when a case presents important questions of policy or interpretation, when there is a potential for procedural problems, or when there are issues of concern to Indian tribes or Native Hawaiian organizations.

Consultation usually results in a Memorandum of Agreement (MOA), which outlines agreed-upon measures that the agency will take to avoid, minimize, or mitigate the adverse effects. In some cases, the consulting parties may agree that no such measures are possible, but that the adverse effects must be accepted in the public interest.

Implementation

If an MOA is executed, the agency proceeds with its undertaking under the terms of the MOA.

Failure to resolve adverse effects

If consultation proves unproductive, the agency or the SHPO/THPO, or ACHP itself, may terminate consultation. If a SHPO terminates consultation, the agency and ACHP may conclude an MOA without SHPO involvement. However, if a THPO* terminates consultation and the undertaking is on or affecting historic properties on tribal lands, ACHP must provide its comments. The agency must submit appropriate documentation to ACHP and request ACHP's written comments. The agency head must take into account ACHP's written comments in deciding how to proceed.

Tribes, Native Hawaiians, and the public

Public involvement is a key ingredient in successful Section 106 consultation, and the views of the public should be solicited and considered throughout the process.

The regulations also place major emphasis on consultation with Indian tribes and Native Hawaiian organizations, in keeping with the 1992 amendments to NHPA. Consultation with an Indian tribe must respect tribal sovereignty and the government-to-government relationship between the Federal Government and Indian tribes. Even if an Indian tribe has not been certified by NPS to have a THPO who can act for the SHPO on its lands, it must be consulted about undertakings on or affecting its lands on the same basis and in addition to the SHPO.

2.2 National Register of Historic Places Criteria for Evaluation of Eligibility

As part of the Section 106 review process, cultural resources investigations generally are conducted with the purpose of identifying resources that are listed in or eligible for inclusion

in the NRHP. The NRHP, which is administered by the National Park Service (NPS) identifies districts, sites, buildings, structures, and objects (defined below at 2.5.2) that are significant in American history, architecture, archaeology, engineering, and culture. The quality of significance is present in resources that “possess integrity of location, design, setting, materials, workmanship, feeling, and association” and meet one or more of the following criteria:

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history (USGPO 2010b).

2.2.1 Criteria Considerations

Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. Such properties will qualify, however, if they are integral parts of historic districts that meet the criteria or if they fall within the following categories:

- A. a religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- B. a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- C. a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his productive life; or
- D. a cemetery that derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- E. a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

F. a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or

G. a property achieving significance within the past 50 years if it is of exceptional importance (USGPO 2010b).

2.2.2 Resource Types

The NPS recognizes five types, or categories, of properties that may be listed in or eligible for the NRHP. Each of these types is defined below.

- **Building.** A building is a structure created to shelter any form of human activity, such as a house, barn, church, hotel, or similar structure. The term “building” may refer to a historically and functionally related complex, such as a courthouse and jail or a house and barn.
- **Site.** A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself maintains historical or archaeological value regardless of the value of any existing structure.
- **Structure.** A structure is a work made up of interdependent and interrelated parts in a definite pattern of organization. Constructed by man, it is often an engineering project large in scale. The term is used to distinguish resources created with some purpose other than the shelter of human activity from buildings. Examples of structures include fortifications, roads, and bridges.
- **Object.** An object is a material thing of functional, aesthetic, cultural, historical, or scientific value that may be, by nature or design, movable yet related to a specific setting or environment. Examples of objects include railroad locomotive, ships, airplanes, and memorials.
- **District.** A district is a geographically definable area, urban or rural, possessing a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united by past events or aesthetically by plan or physical development (USDI 1995).

2.2.3 Cultural Landscapes

A cultural landscape is a geographic area (including both cultural and natural resources and the wildlife or domestic animals therein), associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values. There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes. Following is a summary of landscape types, as defined by the NPS (NPS 2008).

- **Historic site:** a landscape significant for its association with a historic event, activity, or person. Examples include battlefields and presidential homes and properties.
- **Historic designed landscape:** a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, engineer, or horticulturist

according to design principles, or an amateur gardener working in a recognized style or tradition. Examples include parks, campuses, and estates.

- **Historic vernacular landscape:** a landscape that evolved through use by the people whose activities or occupancy shaped it. The landscape reflects the physical, biological, and cultural character of everyday lives. Examples include rural historic districts and agricultural landscapes.
- **Ethnographic landscape:** a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples include contemporary settlements, sacred religious sites, and massive geological structures.

Cultural landscapes are listed, or determined eligible for inclusion, in the NRHP as sites or historic districts. They must meet the NRHP evaluation criteria, described above, in terms of both significance and integrity. The NPS has provided guidance for evaluating the significance of rural historic landscapes associated with agricultural land uses and practices (McClelland et al n.d.).

First, the [landscape] characteristics must have served or resulted from an important event, activity, or theme in agricultural development as recognized by the historic contexts for the area. Second, the property must have had a direct involvement in the significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community. Third, through historic landscape characteristics, the property must cogently reflect the period of time in which the important events took place (McClelland et al. n.d.:13).

Significance of a cultural resource under NRHP eligibility Criterion A is derived from events that have made a significant contribution to the broad patterns of our history. Significance of a cultural landscape under NRHP Criterion B is established through association of the resource with the lives of individuals who made important contributions on a local, state, or national level. Significance under Criterion B often is unrelated to historic uses, such as a farm that also was the home of a political leader, writer, poet, artist, or industrialist. Historic landscape characteristics are important in establishing the historic association and setting of these properties.

Significance under Criterion C applies to the physical qualities of a landscape. Significant physical qualities may be present in a number of ways. For example, the organization of space, visible in the arrangement of fields or siting of farmsteads, may illustrate a significant pattern of land use associated with traditional practices unique to a specific community. Similarly, an irrigation or transportation system may reflect an important innovation in engineering that fostered a community's prosperity.

Significance under Criterion D is associated with properties that have yielded or are likely to yield information important to prehistory or history. Abandoned roadways, reforested fields, remnant stone walls, and battlefield earthworks are examples of resources that can possess characteristics that meet the significance requirement of Criterion D.

2.2.4 Integrity

Historic integrity is a measure of a property's evolution and current condition. Change over time can contribute to a property's historic significance if those changes are related to the trends and patterns of development identified in the historic context.

Applying any of the NRHP eligibility criteria involves two tests. First, a property must satisfy one or more of the criteria and, second, the property must retain sufficient integrity to illustrate or convey its significance (USDI 1995:44–45). The seven aspects of integrity are defined as follows.

- **Location** is the place where the historic property was constructed or the place where the historic event occurred.
- **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
- **Setting** is the physical environment of a historic property.
- **Materials** are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- **Workmanship** is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time.
- **Association** is the direct link between an important historic event or person and a historic property (USDI 1995:44–45).

For a historic architectural or archaeological property to be considered eligible for inclusion in the NRHP, it must retain one or more of these aspects of integrity. Cultural resources that have undergone extensive expansions over time may have lost the characteristics that convey integrity, thereby rendering the properties ineligible for listing in the NRHP.

2.3 Research Design and Methods

Working within the regulatory framework and guidelines described above, Gray & Pape developed a research design and methods appropriate for the Undertaking. The research design and methods are based on the firm's 2006-2007 historical architectural investigations for the Beech Ridge Wind Energy Facility (O'Bannon and Sweeten 2007).

2.3.1 Archival Research

A survey of historical architectural resources is designed to record the current condition of a historic-period resource by means of written description and digital photo-documentation and

to place it within a general historic context. Building on the research conducted in 2006–2007, Gray & Pape tailored additional research to provide contextual information for the types of resources located within the Undertaking’s defined APE. The research included consultation of county histories, historical maps, newspaper clipping files, pictorial histories, atlases, and other secondary sources. Gray & Pape also sought any cultural resource reports completed since 2006 that covered areas within the Undertaking’s defined APE.

Gray & Pape conducted archival research in Charleston, West Virginia, at the West Virginia Archives and History Library and WVDCH in September 2010. Staff at the WVDCH provided CD-ROM copies of all official WVDCH HPI forms for previously identified resources within the APE. Forms for 108 resources in Greenbrier and Nicholas counties were provided.

Local repositories, including the Greenbrier County Public Library and the Greenbrier Historical Society were consulted during the course of the historical architectural investigation. Archival research at the repositories in the vicinity was completed concurrently with the architectural survey and was based on the findings of the survey. Gray & Pape also retrieved archival materials relevant to the current investigation from the Library of Virginia, located in Richmond.

Utilizing the findings of the background research as well as the results of fieldwork investigations, Gray & Pape developed a historic context for resource types and/or themes that were not discussed in the 2006–2007 report. This information aided in evaluating the type and character of newly identified historic-period architectural resources. The context considers the history of the area, as well as changes to the built environment over time, including settlement patterns, commerce, natural resources extraction, and other relevant historic trends. Consideration of the rural historical landscape also is presented in this context.

2.3.2 Field Methods

Gray & Pape’s field survey team assembled in Lewisburg, West Virginia, on 24 October 2010 to review the historical architectural investigation’s parameters, field maps and survey forms, photo-documentation requirements, landscape assessments, and all other aspects of the survey methods. The field survey commenced 25 October 2010 and concluded on 29 October 2010. The survey team was composed of staff with training in American architectural history, architectural field survey techniques, and digital photography. A Gray & Pape Principal Investigator was part of the team throughout the survey. The survey methods complied with the *Secretary of the Interior’s Standards and Guidelines for Identification* (USDI 1983) as well as the survey guidelines promulgated by the WVDCH (specifically Part 2, which discusses Review and Compliance surveys) (WVDCH 2005).

Gray & Pape performed a field survey of all architectural resources 50 years or older located within the Undertaking’s defined APE. As previously noted, the Undertaking’s defined APE and the APE for the 2006-2007 historical architectural survey overlap to some extent. Approximately 50 resources identified during the 2006–2007 investigation were field-checked for any major changes. “Major changes” include, but are not limited to, alterations such as new additions, demolition in whole or in part, and/or replacement or removal of

character-defining historic fabric such as original sash, siding, doors, and decorative elements. The survey team endeavored to remain within the publicly owned right-of-way during fieldwork unless invited onto the property by the property's owner. The team's field maps included the boundaries of the current APE, the area of overlap with the 2006–2007 historical architectural survey, and locations of all previously identified architectural resources. Due to the recent vintage of the previous architectural survey, no unrecorded resources were assumed to be present within the area of overlap between the 2006–2007 APE and the Undertaking's defined APE. Resources identified during the 2006–2007 investigations were photographed only if major changes had taken place at the property during the intervening years.

Within the western one-third of the current APE, which was not included in the 2006–2007 investigation, Gray & Pape digitally photo-documented each previously unrecorded historic-period resource with exterior views. Photographs included at least one three-quarter view of the primary building associated with each resource and of any secondary buildings. Resources were documented with 35-mm digital photography according to the guidelines set forth by the WVDCH for architectural survey (WVDCH 2005). All digital photography met the requirements of the National Park Service's March 2005 photo policy expansion. Field photo logs were used to match photographs with HPI forms. The location of each resource was recorded on field maps. Locational data was incorporated into a GIS dataset as part of the documentation record for the historical architectural survey. Furthermore, in the western one-third of the current APE, Gray & Pape's survey team examined the rural landscape as a whole using the same methods as in 2006–2007. Representative photographs of the landscape and built environment were taken, and field notes were annotated to record both typical and atypical characteristics.

Field observations and other information were collected and used to generate an architectural description of each historic-period resource. All information gathered was recorded on WVDCH HPI forms, as well as data pertaining to historical use, construction date, and current condition. This information, along with the aforementioned archival research, was used to develop a statement of significance for each resource. For the previously recorded resources, Gray & Pape updated the HPI forms for properties that had major changes since their previous survey, including new digital photo documentation.

As field investigations proceeded, the survey team member traversed all passable publicly owned roads. Some county-maintained roads were unpaved and were not fully passable, but these tended to be in remote, generally undeveloped areas. Survey team members did not enter any privately owned driveways or roads. In all instances, historical architectural resources were observed and documented from the publicly owned right-of-way unless a property owner invited the team onto the site. Buildings that may be construed as public, such as churches, stores, and schools, also were approached more closely. Every effort was made to identify and record each resource over 50 years old within the Undertaking's defined APE. Given the remote character of the landscape, Gray & Pape acknowledges that access to all properties from publicly owned rights-of-way was not possible. For all properties, Gray & Pape sought to respect the wishes of owners concerning access.

Similar to the investigations carried out in 2006-2007, Gray & Pape's fieldwork investigations also considered each resource within the context of rural historic districts and/or landscapes. The Pickaway Rural Historic District study (Sibold and Ripley 1998), available at WVDCH, provided guidance for identifying similar property types within the Undertaking's defined APE. Locations of potential rural historic districts and/or landscapes were marked on field maps, as well as pertinent information concerning each potential district and/or landscape, such as the types of individual resources present, defining characteristics, and a preliminary determination of appropriate boundaries for each district and/or landscape. Photographs of potential districts and/or landscapes were keyed to field maps as well.

Previously Identified Historic Architectural Resources

Five historical architectural surveys have been conducted in Nicholas and Greenbrier counties in the past 25 years. Presently, no resources formally listed in the NRHP are located within the Undertaking's defined APE. This is not to suggest, however, that no NRHP-eligible resources exist within the APE. For the current investigations, the USFWS, in consultation with the WVDCH, bears final responsibility for determining NRHP eligibility of historic-period resources as specified by the NHPA. To assure a thorough understanding of the extant architectural resources within the Undertaking's defined APE, the architectural field survey that Gray & Pape conducted during the course of this investigation identified all historic-period resources (i.e., those that are more than 50 years old) and potential districts and landscapes within the APE. Previously identified properties were resurveyed in order to generate, if needed, an updated inventory form for each resource. Those resources identified during previous survey efforts as potentially NRHP eligible were resurveyed as well.

2.3.3 Viewshed Analysis

Electronic viewshed analyses were conducted to determine the visibility of the Undertaking from all historic-period resources within the APE that were identified during field investigations in October 2010. Mapping of the results of the field investigations are presented in Appendix A (Figures A1-A4).

The first portion of the electronic viewshed analysis for the Undertaking was prepared by Saratoga Associates; this firm also provided all viewshed analyses in 2006-2007. The analysis shows all areas of the entire current APE within which one or more WTGs will have the potential to be visible. This information will be used at later stages of the Undertaking to help determine the likelihood of adverse effects on NRHP-eligible resources, primarily visual effects, which may result from the expansion of the Beech Ridge facility.

The first step in conducting a visibility analysis is to create viewshed maps (Figures A5-A6) in order to determine whether or not the Undertaking would be visible from a given location. Also known as defining the zone of visual influence, viewshed mapping identifies the geographic area within which there is a relatively high probability that some portion of the Undertaking would be visible.

The overall accuracy of viewshed mapping is dependent on the number and location of control points (study points representing proposed WTGs) and the resolution of the data used

in the viewshed calculation. To calculate the maximum range of potential WTG visibility, one control point was established at the WTG high point (i.e., apex of blade rotation or 497 feet) for each of the 47 WTG sites being evaluated. The resulting composite viewshed identifies the geographic area within the 5-mile study radius (APE) where some portion of the Undertaking (the apex of one or more WTG blades) is theoretically visible.

One viewshed map was prepared by defining the area within which there would be no views of the Undertaking because of the screening effect caused by intervening topography (Figure A5). This treeless condition analysis is used to identify the maximum potential geographic area within which further investigation is appropriate. A second map was prepared by illustrating the probable screening effect of existing mature vegetation (Figure A6). This vegetative condition viewshed, although not considered definitive, acceptably identifies the geographic area within which one could expect to be substantially screened from views of the Undertaking by intervening forest vegetation.²

Identified viewshed areas were further quantified to illustrate the number of WTGs that may be visible from any given area. This cumulative degree of visibility is summarized on each map using the following groupings:

- 1–5 WTGs visible;
- 6–10 WTGs visible;
- 11–20 WTGs visible;
- 21–30 WTGs visible;
- 31–40 WTGs visible; and,
- 41–47 WTGs visible.

By themselves, the viewshed maps do not show which specific WTG(s) one could theoretically see from a given vantage point or how much of each WTG is visible above intervening landforms or vegetation (e.g., 100 percent, 50 percent, 10 percent etc., of total WTG height). Instead these maps identify the geographic area within which there is a relatively high probability (theoretical visibility) that *some portion* of one or more WTGs would be visible. The primary purpose of these maps is to assist in determining the potential visibility of the Undertaking from the identified historic resources.

In this evaluation, ArcGIS 9.2 and ArcGIS Spatial Analyst software were used to generate a viewshed overlay map based on publicly available digital topographic and vegetation data sets. Viewshed maps were created by first importing a digital elevation model (DEM) of the study area. This DEM, obtained through the United State Geologic Survey (USGS) from its National Elevation Dataset, is based on the best publicly available digital elevation data. The

² The vegetated viewshed map accounts for removal of vegetation where proposed access roads (20 feet) and turbine pads (100-foot radius) may require additional clearing.

DEM data was sampled at a 10-meter grid cell resolution and projected to the Universal Transverse Mercator (UTM) coordinate system. The computer then scanned from each control point to all cells within the DEM, distinguishing between grid cells that would be hidden from view and those that would be visible based solely on topography. Areas of the surrounding landscape where each control point would be visible were identified; areas interceded by topographic features would not be visible.

Vegetation data was extracted from the USGS National Land Cover Data Set 2001 (NLCD). The NLCD dataset, produced by the Multi-Resolution Land Characteristic Consortium, was developed from Landsat 7 Thematic Mapper (TM) imagery (2001 is the nominal year of image acquisition) and is sampled to a 30-meter grid resolution.³ The screening effect of vegetation was incorporated by adding 40 feet in height to DEM grid cells that are completely forested (according to NLCD dataset) and then repeating the calculation procedure to identify areas of no visibility due to interceding vegetation. Forested areas then were removed from the viewshed to account for areas located within a full forest canopy. Based on field observations, most trees in forested portions of the study area appear to be taller than 40 feet. This height thus represents a conservative estimate of the effect of vegetative screening.

It is important to note that the NLCD dataset is based on interpretation of forest areas that are clearly distinguishable from multispectral satellite imagery. As such, the potential screening value of site-specific vegetative cover, such as small hedgerows, individual trees, and other areas of non-forest tree cover, may not be represented in the viewshed analysis. Furthermore, the NLCD dataset does not include recently deforested areas or the screening value of existing structures (e.g. homes, farmsteads, commercial structures, etc). The latter is particularly important in populated areas. Given these conditions, the viewshed map may be considered to conservatively overestimate potential visibility of the Undertaking.

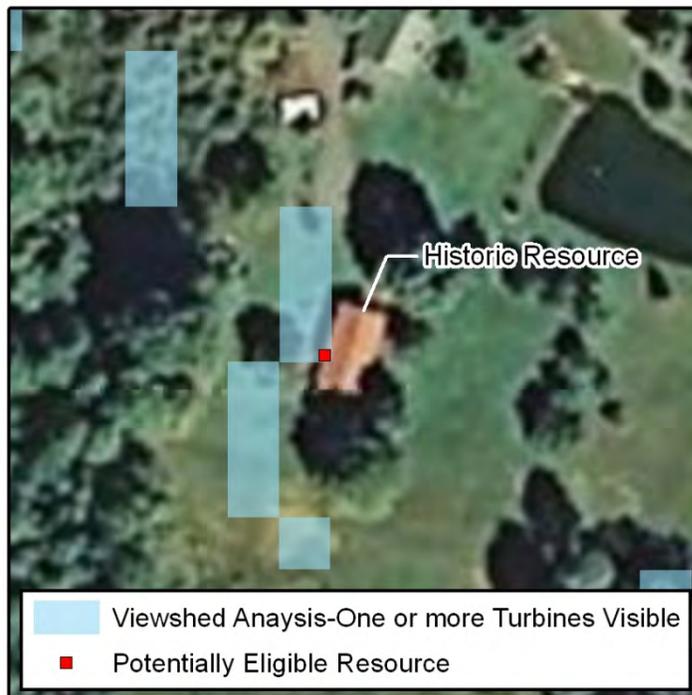
It is noteworthy that untrained reviewers often misinterpret treeless condition viewshed maps to represent wintertime, or leafless condition visibility. In fact, deciduous woodlands provide a substantial visual barrier in all seasons. Since the NLCD dataset generally identifies only larger stands of woodland vegetation that are clearly distinguishable from multispectral satellite imagery, viewshed maps that include the screening value of existing vegetation are equally representative of both leaf-on and leaf-off seasons. Treeless condition analysis is provided only to assist experienced visual analysis identify the maximum potential geographic area within which further investigation is appropriate. Such topography-only viewshed maps are not generally intended or appropriate for public interpretation or presentation.

Finally, the viewshed maps indicate locations in the surrounding landscape in which one or more WTG highpoints (i.e. apex of blade rotation) may be visible. These maps do not imply the magnitude of visibility (i.e., how much of each WTG is visible), the viewer's distance

³ Thirty-meter (98.4 feet) resolution is the smallest vegetative grid cell increment commonly available for the project region. This resolution provides an appropriate degree of accuracy for development of 5-mile viewshed maps given the fairly broad patterns of existing land use in the area, as well as the accuracy of mapped topographic data (i.e., 1:24,000-scale USGS topographic maps with 10-foot contour intervals).

from each visible WTG, or the aesthetic character of what may be seen. Such interpretation is accomplished in subsequent analyses such as the completion of photo simulations. After NRHP eligibility of resources with visual effects has been established, photo simulations will be prepared to assess the effects on each resource and review agencies will determine if the effect is adverse.

After completing field investigations and identifying all historic-period resources within the 5-mile APE, Gray and Pape used Saratoga’s electronic viewshed analysis to analyze if one or more proposed WTGs will be visible to a given historic-period resource (Figures A1–A4). The location for each identified historic-period resource was created in ESRI ArcGIS 9.3 using field maps and notes, and then marked as an electronic point. It was taken into account that only a small portion of a feature may fall within the electronic viewshed. Furthermore, a resource was considered to have viewshed impacts from a proposed WTG if any portion of the resource intersects the electronic viewshed extent. Given the extent of the resources in the real world are polygons, each resource location was then visually compared with the electronic viewshed analysis. If appropriate, the resource point was repositioned to the intersections with the electronic viewshed extent. The extent of each resource was determined using 2009 aerial photography from the United States Department of Agriculture Farm Service Agency (USDA FSA) National Agricultural Imagery Program (NAIP), USGS 7.5’ Series Topographic Quadrangles, and field maps and notes, as illustrated below.



Once the point locations were repositioned to the electronic viewshed extent, ArcGIS 9.3 and ArcGIS Spatial Analyst software was used to convert Saratoga's data from raster format to vector format. This allowed the viewshed data to be spatially queried with the resource data, identifying which resources intersect the electronic viewshed data. All historic-period resources identified as having visual impacts were documented with an HPI form and evaluated for NRHP eligibility, as described in the following chapters.

2.3.4 Acoustical Study

In February 2011, Acentech conducted an acoustical study to ascertain the likelihood of audible effects caused by the Undertaking. The WVPSC Guidelines for Noise Studies for Siting Certificates include:

- Preconstruction – identify land uses and existing ambient sound levels (Ldn) in communities within one mile of the facility;
- Construction – predict construction noise associated with blasting, earthmoving, pile driving, erection, traffic, and equipment installation at the nearest property boundary and within one mile and five miles from the facility. Identify noise sensitive areas within one mile and five miles of the facility. The noise sensitive areas include hospitals, schools, residences, cemeteries, parks, and churches. Describe construction equipment, procedure, and potential noise mitigation options.
- Operation – predict operation noise and identify land uses and type of structures (residential, commercial, or industrial) within one mile of the facility. Describe equipment and procedures to mitigate potential noise (Acentech 2011:2).

To determine the existing ambient sound levels (Ldn) in the vicinity of the Undertaking, a series of sound monitoring locations were established. Most of the monitoring locations were placed near dwellings or small groups of dwellings, and the locations ranged from 5,000 feet to 10,600 feet from the nearest proposed new WTG location. In Duo, the monitoring location was 10,600 feet from the nearest proposed new WTG and also was 3,600 feet from the nearest existing operating WTG at the Beech Ridge facility.

The ambient sound survey characterized the existing land uses, sound sources, acoustic environment, and specifically, representative long-term Ldn values in the area. The field team also collected short-term measurements and observations during visits to each monitoring location. The observed sources typically included wind in trees, local and distant traffic, dogs, birds, aircraft, distant mining industry, and a flowing creek (Acentech 2011:3).

Construction Sound Levels

When construction of the Undertaking commences, initial activities will include improvements and new construction of facility access roads; then clearing, excavation, foundation, and backfill work at the WTGs and the substation. Concrete for construction will be made at temporary on-site batch plants using trucked-in materials. Subsequently, construction of the WTG towers will begin, followed by installation of the WTGs, as well as trenching and installation of the electrical collection system and installation of substation equipment. Finally, prior to commercial operation, the individual equipment items and the entire facility will be tested and commissioned (Acentech 2011:4).

A majority of the construction activities associated with the Undertaking will be conducted during daylight hours. At times over the planned construction schedule, the construction activities will be audible to nearby residents. Any construction at the facility in the evening and nighttime is expected to be limited to relatively quiet activities and to be less noticeable than in the daytime. The following mitigation measures will be employed during the construction phase of the Undertaking:

- Effective exhaust mufflers in proper working condition will be installed on all engine-powered construction equipment at the site. Mufflers found to be defective will be replaced promptly.
- Contractors will be required to comply with federal limits on truck noise.
- Construction contractors will be required to ensure that their employee and delivery vehicles are driven responsibly.
- Nighttime construction work that occurs will generally be limited to relatively quiet activities, such as welding and installing equipment, cabling, and instrumentation.
- The community will be notified in advance of any blasting activity (Acentech 2011:4)

Construction sound that may be heard off-site will vary from hour-to-hour and day-to-day in accordance with the equipment in use and the operations being performed at the site. The temporary noise associated with construction of the Undertaking will be similar to the noise produced during excavation, grading, and steel erection activities at many other mid-size building projects, and the current timber and mining activities in the region. Since the construction activity at the site will be temporary, will occur mostly in the daytime hours, and will produce sounds that are already familiar to the community, its overall noise impact on the community beyond 1,000 feet of the nearest WTG is not expected to be significant (Acentech 2011:4-6).

Operational Sound Levels

The range of sound levels that will propagate from the operating WTGs to various locations in the community around the site have been predicted by assuming maximum sound output of all 33 WTGs, which occurs under conditions of maximum rated wind speed. The Undertaking's construction sound levels were estimated on a time-weighted basis (Ldn) for outdoor locations; for indoor locations, these levels would be reduced by 12 dBA with the windows open and by 24 dBA or more with the windows closed. Measurements and estimates indicate, however, that the long-term Ldn sound levels of the facility will be significantly less than the existing ambient Ldn levels at that distance for both outdoor and indoor locations (Acentech 2011:5-6).

The Beech Ridge facility will be available to operate 24 hours per day and seven days per week. It is expected that routine operation will produce day-night sound levels in the community that are similar to or lower than the measured existing ambient day-night sound levels (Acentech 2011:6-7).

3.0 HISTORIC CONTEXT

This historic context incorporates by reference the historic context presented in the reconnaissance-level survey report prepared by O’Bannon and Sweeten (2007) for the Beech Ridge Wind Energy Facility. The historic context provided below expands upon previously identified historic themes, particularly coal mining, community histories, churches, schools, transportation, and architecture, based on the architectural survey findings of the current investigation. A discussion of coal mining company towns also is presented herein. All newly identified historic-period resources have been evaluated using information contained in this report as well as the data presented by O’Bannon and Sweeten (2007). Individual resources associated with these historical patterns and trends that are anticipated to have views of the Undertaking have been documented with HPI forms (Appendix G).

3.1 Location of the Undertaking

The proposed Undertaking is located within the Kentucky, Wilderness, and Richwood Magisterial Districts in Nicholas County and the Meadow Bluff and Williamsburg Magisterial Districts in Greenbrier County (Figure 1). The APE is located in the Allegheny Mountains and the terrain is characterized by low mountains, ridges, and narrow valleys. The 1 million-acre Monongahela National Forest is located directly east of the APE. General historical information about the establishment and settlement of Nicholas and Greenbrier counties and the Monongahela National Forest is presented in O’Bannon and Sweeten (2007:10–26).

The setting in which the Undertaking will be located is generally quite rural, with a number of former coal mining company towns located in the hilltops and along transportation corridors. Widely dispersed farmsteads and residential development exist in unincorporated parts of both counties as well. Historically, comparatively isolated mining camps, logging camps, and mills also were located in the mountains, often alongside streams and rivers. In Nicholas County, the former mining and lumber boom town of Richwood stands approximately 1.3 miles (2 kilometers) north of the APE’s northernmost boundary line. In Greenbrier County, the nearest city of substantial size is Lewisburg, which is situated approximately 16 miles (26 kilometers) southeast of the APE’s southernmost boundary line. Historical development patterns in the APE have been profoundly influenced by the wealth of natural resources found throughout West Virginia, including fertile floodplains and valleys, numerous rivers and streams, extensive coal and other mineral deposits, and dense forests.

3.2 Coal Mining

The majority of historic-period resources within the APE are associated with coal mining. Since the early twentieth century, coal mining has been a vital aspect of the economies in Greenbrier and Nicholas counties. The coal industry was preceded by a major lumbering boom in the area. The size of the local workforce swelled as job opportunities increased. Lumber initially was shipped down rivers and streams, but soon railroads were constructed to

expand shipping capacity. Both of these trends facilitated early efforts to extract coal resources and the two industries often were intertwined (O'Bannon and Sweeten 2007).

The lumber and coal booms brought unprecedented economic and industrial activity to West Virginia during the late nineteenth and early twentieth century, but at substantial cost to West Virginians. Both industries were based on extraction of natural resources, with the vast majority of the raw materials shipped elsewhere for manufacturing and energy production. This framework created a small class of industrialists who wielded enormous political and economic clout and a large class of workers with very little influence over their daily lives in particular or West Virginia's economic, cultural, and political spheres in general (Williams 1976:1-4).

The locations of coal resources were marked on maps during the late nineteenth century (Figure 3). In 1870, the Elkins and Davis families acquired vast tracts of land in fee and mineral rights in Greenbrier 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 Chesapeake & Ohio (C&O) line, but the plan never materialized. It was not until 1906 that the first commercial coal mine opened in the area. Operated by Elk Lick Coal Company, the mine produced 37,898 tons of coal during its 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 experienced great success with lumbering, also opened the Meadow River Smokeless Coal Company in Rainelle (Conley 1960:267–268). The first coal and gas leases recorded in Nicholas County date to 1909, and coal mining was a principal industry in the county throughout the twentieth century (Nicholas County Historical and Genealogical Society 1985:103).

Although local interests precipitated early coal mining activity in West Virginia, the region's enormous wealth of mineral resources soon attracted outside interests. Industrialists on a national scale, including Andrew Carnegie, John Rockefeller, and J.P. Morgan, undertook business interests in West Virginia coal. For example, Rockefeller's Standard Oil Company bought out Camden Consolidated Oil Company to gain direct control over mineral resources within the state. A similar pattern occurred with railroads, as homegrown railroad companies began to be absorbed by larger corporations, such as the Chesapeake & Ohio and Baltimore & Ohio. Absentee owners soon controlled much of West Virginia's vast resources, as well as the means for shipping them to northern and eastern markets (Williams 1976:148-155).

Due to the geology of central Appalachia, many of its coal mines were drift mines. The Greenbrier Coal Company operated a drift mine in McDowell County on the six-foot Pocahontas seam from the 1890s through the early 1930s (Dix 1988:16-17). The tunnels were dug horizontally into mountainside coal seams, an approach that required less machinery and up-front effort (Eller 1982:176). An account written in 1928 described mining methods as follows. Multiple entries about 12 feet wide penetrated the seam, and within a distance of 80 feet, horizontal shafts were then connected by "break-throughs." Ventilation fans forced fresh air into the mines from outside. "Trap doors" were added to direct the flow of air among shafts; opening and closing the doors to allow passage of coal cars fell to boys

not yet old enough to work as miners. “Rooms” were created in the mines by interconnecting the shafts. Heavy timber posts were used to brace the mine walls and keep them from collapsing (Shawkey 1928:260–261).

Mined coal was washed, dried, sorted by size, and loaded onto trucks or railroad cars for shipping. Depending on the ultimate destination, coal also may be shipped by barge (Vuranch 2011a). In southeastern Nicholas County, the Saxman Coal and Coke Company operated a series of coke ovens that burned freshly mined coal down to coke. The Saxman coal mines and coke ovens operated here supplied much of the coal consumed by the tannery and paper mill industries in nearby Richwood, as well as local domestic consumption (Craig 1927). Based on production data published by the West Virginia Office of Miners’ Health, Safety and Training (WVOMHST), the Saxman Coal and Coke Company operated a total of five coal mines in the vicinity, and they were productive from the 1910s through the 1930s. Annual output ranged from as low as about 13,000 tons to as much as 83,000 tons.

The coke ovens, in particular, were a prominent local landmark and various recollections of the coke oven fires are readily available. One former resident recalled the coke ovens “out the Saxman Road at Fenwick,” and “when my children were small and we lived at Charleston and came to Fenwick to visit my mother... many times it would be after dark driving down Fenwick Mountain... the children would see the ovens all aglow and that was their ‘landmark’ telling them they were almost to Grandma’s house” (Richwood West Virginia 2011).

Another prominent feature at coal mines was the tipple. The tipple was erected over the railroad tracks and connected with the coal mine. In instances when the mine location was somewhat removed from the railroad line, a second tipple, called a head-house, could be constructed near the mine entry. Coal cars, monitors, conveyors or chutes would lower the coal from the head-house to the track-side tipple. Screening machinery within the tipple sorted coal by sizes ranging from large blocks to small chunks (Shawkey 1928:259–260).

During the early twentieth century, the local population could not provide enough workers for the newly established coal mines. Coal companies brought workers from elsewhere, especially the South, to increase the labor pool. Many of these imported workers were African Americans, who came to comprise about 25 percent of miners hailing from the South. In West Virginia counties, they made up a substantial percentage of the mining population, especially southern counties such as McDowell, where black miners were 43 percent of the total mining workforce. European immigration also provided an important source of workers. Immigrants from Italy, Hungary, Poland, Austria, Russia, and more than a dozen other nations came to work in West Virginia’s coal mines. Some coal operators preferred immigrant workers, believing them to be harder working and more easily controlled. In 1930, Greenbrier County’s mining workforce included 1,408 native-born whites, 233 African Americans, and 58 European immigrants (West Virginia Editors Association 1941:94; National Coal Heritage Area 2011; Eller 1982:165, 168-169, 172, 174 Corbin 1981:8).

The involvement of African American workers in West Virginia's coal mining industry began with construction of the C&O, Norfolk & Western, and Virginian railroads. Many of these workers came from the Upper South, especially Virginia. They prepared railroad beds, excavated tunnels, and laid track for the trains that opened up the state's vast coal reserves. The folk hero John Henry emerged from these activities. After railroad construction finished, workers often remained in an area to take up coal mining. As time went on, African Americans from Virginia, Kentucky, and Tennessee went directly into West Virginia mines. They would be recruited by coal operators' agents, who were paid a fixed sum in exchange for bringing in a given number of workers. Using money provided by the coal operator, the agent would offer recruits a train ticket and a small amount of money, \$25-\$30, to see them through to their destination in West Virginia. Kin and friendship networks soon developed to pull more black workers into mining. With the advent of World War I, migrants from Alabama, Georgia, and Mississippi moved north as well. As a result, between 1900 and 1930, African Americans comprised between 20 and 26 percent of southern West Virginia's coal miners; the percentage of blacks in northern West Virginia mines was somewhat lower (Eller 1982:165, 169; Trotter 2010; Dix 1988:11-12)).

During the Great Depression, African Americans all across the country shouldered a higher rate of job losses than whites. In West Virginia, 22 percent of the coal mining workforce was African American in 1930, and that dropped to 17 percent by 1940. Although employment opportunities rebounded during World War II, technological innovations reduced labor needs in the mines. As had happened during the Depression years, black miners often were the first to be displaced by machinery. By the late twentieth century African Americans held less than 3 percent of coal mining jobs in West Virginia (Trotter 2010).

Prior to the 1930s, many young boys worked in mines as well. In most instances, boys obtained jobs through their fathers, uncles, or other male relatives already employed at the mine. Boys as young as 12 worked alongside their relatives in an intergenerational tradition that continued for decades in West Virginia. Most boys worked for a year or two under their relative's supervision before they were considered sufficiently trained to work independently. At that point, a younger brother could be brought in to start working as well (Dix 1988:11). Former Crichton resident Jim Estep's mining career is believed to be representative of the period. At the age of 16, his first job was selling powder at the company store in Elk Ridge. The following year, he started hand-loading coal, working alongside his father, and earned 30 cents per ton. In 1942, the newlywed Estep moved with his wife, Helen, to Quinwood, where he started working for the Imperial Smokeless Coal Company as a day laborer underground. He became a section boss in 1949, and four years later received his mine foreman's certificate. In 1982, Estep retired after more than 40 years of coal mining. The Esteps continued to live in Crichton, in the same house they occupied during his mining days (Estep 2010).

Coal mining was historically, and continues to be, among the most physically strenuous and dangerous job occupations in the United States. During the early twentieth century, much of the labor was performed with manual tools in difficult conditions. A miner's workplace, usually called a "room," measured only as high as the coal seam to save time spent on excavation. Rooms could range anywhere from 10 feet in height to no more than four.

Hazards such as flooding, gas seepage, and shaft collapses were common. Even the mines' youngest workers were not spared. Boys as young as 12 might be stationed alongside fast-moving conveyor belts to pick slate and other debris out of the coal as it passed by. Others had the task of opening the large wooden "trap doors" just as speeding coal cars approached. In the absence of adequate brakes, some boys stopped the cars by jamming pieces of wood into the wheel spokes. Accidents and fatalities were not uncommon. In 1930, fatal accidents occurred at the Johnstown Coal and Coke Company mine at Crichton, the Margarett Coal Company mine at Marfrance, and the New River and Pocahontas Consolidated Coal Company mine at Leslie (National Coal Heritage Area 2011; Rice 1986:361–362).

Mechanization of coal mining began during the 1870s and 1880s with the intent of streamlining production and increasing efficiency. Undercutting machines were used first in Great Britain and soon in the United States. In West Virginia, undercutting machines were introduced around 1900, and were followed by loading machines two decades later. This equipment allowed coal miners to load coal much more rapidly than by hand, but had the added effect of eroding miners' control over the pace of production (Dix 1988:28-3-0, 32).

During the late 1940s, coal companies introduced longwall and continuous mining machines. Longwall machines sheared coal from the face of a coal seam. Broken coal fell into a pan line that led to a conveyor belt and then to the processing plant. Continuous miners operate similarly to longwall machines. By 1955, 99 percent of West Virginia coal was being loaded by machines. Around the same time, earth-moving machinery began to be used in "mountaintop removal," in which large volumes of earth and rock are removed to access coal seams. Although this approach made more coal reserves accessible, the process wrought tremendous changes to the landscape, including deforestation, erosion, and water pollution (National Coal Heritage Area 2011).

Additionally, increasing automation began forcing many miners out of work, especially starting in the 1950s (Dix 1988:84-86). A recession in the coal industry during the 1950s and 1960s further contributed to job losses. The mining work force in West Virginia peaked at 125,000 workers in 1948, and declined to fewer than 18,000 workers today, largely due to mechanized mining (National Coal Heritage Area 2011; Rice 1986:362).

Mechanized mining introduced new hazards for coal miners. Ventilation for older coal mines was designed to handle coal dust generated by hand-loading tools. Machines generated far more coal dust and noise. Occupational illnesses, especially chronic lung diseases, such as black lung, proved deadly for many. Miners' hands and feet were not protected from moving parts. Mechanized mining caused higher levels of methane gas to seep into mines, creating conditions ripe for explosions. Between 1901 and 1927, every year at least one serious mine explosion occurred in the Appalachian region and an average of nearly 100 miners died as a result of explosions. Miners also experienced considerable pressure to maintain productivity at all times, although they did not necessarily gain financially from their work. In the days of hand-loaded coal, miners were paid by their rate of production. When mines switched to mechanized operations, workers received an hourly wage that did not change regardless of how much, or how little, coal was produced (Dix 1988: 84, 90, 92-93; National Coal Heritage Area 2011; Eller 1982:179-180).

Floods, explosions, and collapsed shafts historically also have posed some of the greatest hazards to miner safety, although these have become less prevalent in recent decades. Unions, miner safety regulations and improved technology have aided in reducing occupational accidents and illnesses as well. In 1925, 16 percent of West Virginia miners were killed on the job. By the late 1990s, the death rate dropped to 0.2 percent. Despite improved safety records, mine disasters still are a threat, as demonstrated in 2006 by the Sago mine disaster and in 2010 by the Upper Big Branch disaster (National Coal Heritage Area 2011; Dix 1988:93).

Today, West Virginia ranks second nationally in coal production, trailing only Wyoming. West Virginia produces 39 percent of all coal exported to other countries. Production levels remain impressive; Boone County alone now generates more coal in one year than the entire state did in 1900. Domestically, the steel, rail and shipping industries continue to rely on West Virginia coal, but the power industry comprises the largest market sector with more than half of the electricity in the United States generated by coal; in West Virginia, 99 percent of electricity is produced by coal (National Coal Heritage Area 2011).

The production of coal mines in Greenbrier and Nicholas counties closely followed statewide trends. For example, in 1910, Greenbrier County's population totaled 24,833 and its coal production tonnage was about 24,291 tons. By 1940, the county's population stood at 38,432 and coal production had shot up to 1,491,770 tons, placing Greenbrier among a group of 10 counties that contained 38.5 percent of West Virginia's population and were responsible for 73.5 percent of the state's annual coal production (Rice 1986:361).

Much of the original rail network in Greenbrier and Nicholas counties dated from the late nineteenth century and originally served the lumber industry. After the turn of the twentieth century, coal mine operators began building spur lines to serve 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 aforementioned C&O system. The operators included Quin Morton and Walter Wood (founders of Quinwood), John Wade Bell (one of the founders of Bellburn), John B. Laing, William Crichton (for whom the town of Crichton was named), and William Deegan. Along this line, newly opened mines included the Frances Coal Company and the Margarett Coal Company at Marfrance, the Greenbrier Mine owned by the Greenbrier Smokeless Coal Company at Bellburn, the Quinwood mine of the Imperial Smokeless Coal Company, the Crichton mine owned by the Meadow Creek Company at Crichton, and the Nelson Number 1 and 2 mines run by the Nelson Fuel Company at Leslie. In 1923, the largest coal operators in Greenbrier were the Nelson Fuel Company, which produced almost 102,900 tons of coal, the Meadow Creek Coal Company at 59,809 tons, and the Imperial Smokeless Coal Company at 53,368 tons. A decade later, the Leckie Smokeless Coal Company, New River and Pocahontas Consolidated Coal Company, Margarett Coal Company, and Imperial Smokeless Coal Company were responsible for nearly 70 percent of Greenbrier County's annual coal production (Conley 1960:268; Rice 1986:359–360, 362).

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 1986:360–361). 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.

In 1930, coal production in Greenbrier County reached more than 2 million tons, with 10 coal companies working a total of 11 mines and employing 1,790 workers. By 1932, there were 10 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 2 mines at Clearco, the Frances Coal Company at Marfrance, the Greenbrier Smokeless Coal Company at Bellburn, the Imperial Company at Quinwood, the Johnston Coal and Coke Company at Crichton, the Leckie Smokeless Coal Company at Anjean, the Margarete Company at Marfrance, and the New River and Pocahontas Consolidated Coal Company at Leslie (Rice 1986:361; Conley 1960:268). These mines and their associated company towns were clustered in the northwestern part of Greenbrier County and southeastern part of Nicholas County (Figures 4–5).

Demand for coal dropped during the first part of the Great Depression as economic contraction affected all aspects of industrial and domestic consumption. In 1931, the Nicholas, Fayette & Greenbrier Railroad was extended to the Gauley River to connect with the New York Central line, opening the way to western markets and increasing distribution options for coal operators. Production levels increased slowly during the late 1930s, driven in part by expansion of railroad lines (Rice 1986:362).

With the onset of World War II and skyrocketing industrial demand, many company towns prospered through the war years and reached a peak of activity during the early 1950s. The combined effects of mechanized mining and an overall recession in the coal industry contributed significantly to reduced mining activity through the 1970s. Yet, the appetite for West Virginia coal has never been entirely sated. For example, in 1983, more than 3.8 million tons of coal were 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). Meanwhile, in Greenbrier County, the Leckie Smokeless Coal Company still operated five mines at Anjean, which produced a total of 115,974 tons in that year. The Clear Creek Fuel Company extracted 17,790 tons of coal from its mine in Anjean and 11,357 tons at Clearco. Eight surface mining companies also were active in Greenbrier County, with sites at Trout, Clearco, Duo, Anjean, and Bellburn (Rice 1986:363–364). Coal production remained steady through the 1980s but, by the mid-1990s, the remaining mines



Detail of 1921 Topographic Map of Nicholas County Showing Locations of Coal Mining Communities (West Virginia Geological Survey 1921)



Detail of 1936 Topographic Map of Greenbrier County
 Showing Locations of Coal Mining Communities
 (West Virginia Geological Survey 1936)

closed due to depleted resources. Within the Undertaking's defined APE, reclamation of previously surface-mined areas is ongoing. Limited mining activity continues in the vicinity of Anjean and Bellburn.

3.2.1 Life in Coal Company Towns

When the coal mining industry emerged during the early twentieth century, much of West Virginia was sparsely settled. In remote locations where ample coal reserves existed, there often were no nearby communities to provide goods and services for employees. The primitive condition of roads in West Virginia and lack of access to personal transportation hampered workers' ability to travel long distances. In response, most coal operators constructed company towns for their workers. By the mid-1920s, nearly 80 percent of West Virginia's coal miners lived in "company towns". The company town became the nexus for its residents, the place where they worked, lived, shopped, and worshipped. They also reflected the transformation in West Virginia's economy brought on by extractive industries. Increasing numbers of West Virginians went from being land owners working for themselves to company town tenants working for absentee owners (National Coal Heritage Area 2011; Eller 1982:162-163; Shifflett 1991:33).

A company town typically was located in close proximity both to a coal mine and one of the branch railroad lines that shipped coal. In mountainous West Virginia, most coal seams were found on steep hillsides, creek valleys, and ravines. Thus, when building a company town, a coal operator first constructed a tram road by which to bring in workers and supplies, including a steam-powered engine for a saw mill. Coal operators were free to dub their towns by any appellation they chose, requiring only approval from the U.S. Postal Service. Names of company owners or their family members were a common choice (Eller 1982:163-164; Shifflett 1991:34). In Greenbrier and Nicholas counties, former company towns such as Crichton, Marfrance, Bellburn, and Quinwood are examples of this practice.

The linear dispersal of company towns remains evident in many parts of West Virginia. In Greenbrier and Nicholas counties, one series of towns is located along an abandoned railroad line and West Virginia Highway 20, and another series is along an active railroad line and County Route 1. Company towns were constructed according to a fairly consistent set of principles. Locally available timber provided the raw building materials for dwellings, offices, a store, and other town buildings, as well as a tipple and other structures needed for the mine's operation (Eller 1982:163-164; Corbin 1981:5). To cut costs, almost all miners' houses were built identically. Buildings occupied small lots and the streets were organized either in a grid or linear pattern, depending on the dictates of the topography. Landscaping and other aesthetic amenities were minimal. Many of the buildings were designed to be impermanent. The coal company retained ownership of all mines and buildings. Workers rented their dwellings from the company. Options for other types of housing were very limited, as the coal companies usually owned extensive swaths of land and travel remained difficult for most workers. By 1922, nearly 80 percent of West Virginia miners lived in company houses (Salo 2006:744; National Coal Heritage Area 2011).

Just north of the APE, Saxman is located approximately 3 miles southwest of Richwood and a short distance northwest of the Nicholas/Greenbrier county line. The town was established

by the Saxman Coal and Coke Company during the early twentieth century. A former resident, Pearl Collins (1975), remembered living in Saxman during the 1910s:

My father must have gotten himself a job in the coal mining town of Saxman, WV. Since I've studied this, I believe he went to work in the coke ovens making coke, anyway, they moved to Saxman in a 3 room house. There were several of these small houses built along side, Big Laurel River on the left side of the river and this was called Shanty Row. It was near the coke ovens and right across from where they called the Power house. There was a boardwalk in front of these houses. Some people spoke of it as "over the boardwalk". It was here that my sister Versa and I were born. I, Pearl Collins, was born August 3, 1914 and Versa was born January 26, 1917. Our doctor who delivered us was Dr. E.F.Flora.

In some instances, coal operators built "model towns," a concept that derived from the early twentieth century welfare capitalism movement that advocated providing good housing and recreational facilities as a means of countering the appeals of union organizers. Such towns offered plumbing and electricity in the dwellings, a rarity in most parts of West Virginia at the time. Community amenities, including parks, movie theaters, and swimming pools, were constructed (National Coal Heritage Area 2011; Eller 1982:190). More often, coal operators invested as little as possible in their company towns. Inadequate plumbing, heating, and electricity were the norm rather than the exception, and dwellings were poorly built and maintained. In a 1925 report, the U.S. Coal Commission documented substandard living conditions in 713 company towns throughout Appalachia. Among the faults discovered were dwellings poorly built with inferior materials, inadequate provisions for sanitation, and excessive pollution from mining operations. As the mining industry matured and coal operators became more interested in retaining a more secure, family-based workforce, these shortcomings began to be addressed (Eller 1982:182-187; Shifflett 1991:49, 56).

Although living conditions often left much to be desired, most coal company towns offered a social milieu that included opportunities for recreation. Numerous West Virginia coal company towns had baseball teams, and a baseball diamond was a fixture in most. Baseball provided an important recreational outlet and served as a source of community pride and social cohesion among workers. Played on Sundays, games were major social events and teams traveled among company towns to play one another. Company owners often enjoyed having a successful team for the bragging rights, and some went so far as to hire men based on their baseball playing abilities rather than their skill at coal mining. Teams played in county leagues, union leagues, and racially segregated leagues (Vuranch 2011b; Worthington 2011; Shifflett 1991:162-163).

The company-owned store was another pivotal element in every company town. The remote character of the towns' environs generally meant the company store offered workers the only option for buying groceries, clothes, and other goods ranging from washing machines to medicine. Most company stores also contained the local post office, payroll office, and barber shop. Through the early to mid-twentieth century, additional services and venues, such as barber shops, movie theaters, bowling alleys, soda fountains, lodges, dance halls, libraries, and gas stations, were added to the company store. Additionally, during the early

twentieth century, miners often were paid in company scrip rather than U.S. currency. Workers were paid according to the volume of their production. Scrip could be used only in a company store or for services provided by the coal operator, such as a company doctor, thus preventing workers from spending their earnings outside the town (National Coal Heritage Area 2011; Vuranch 2011b; Shifflett 1991:176, 182).

Their monopoly on commercial activity allowed company stores to set prices for all goods. Company stores consistently charged higher prices than stores outside of the coal company. Prior to unionization, pay rates for most miners were quite low. As result, many miners ended up indebted to the company. They typically were not permitted to leave a job until their debt was settled, a situation that essentially created captive workers. Company stores also represented a significant income source for coal operators. For example, in a company town owned by the Greenbrier Coal Company in McDowell County, store sales and rent payments fluctuated between approximately 65 and 80 percent of employees' monthly income. On a monthly basis, profits from the company store could mean the difference between a net loss and net profit for coal operators (Vuranch 2011b; Eller 1982:188-189; Dix 1988:25).

An important aspect of life in company towns was that, because workers did not own the dwellings they inhabited, coal operators reserved the right to search homes and to evict anyone deemed "undesirable." During periods of union organizing activity, the companies' ability to conduct searches and remove workers, family members, or other individuals was used to quell the ability of workers to assemble and organize. Striking miners and their families also could be evicted immediately, and often with force. As privately owned entities, company towns were not required to establish local political systems, made up of mayors, city council members, and other duly elected officials whose purpose was to see to the needs of local residents. Instead, all aspects of local life were determined by the coal operator with little or no input from company town residents. Lacking a local political system, company town residents also had little access to state-level politics, thus diluting their voices and influence in the political sphere (Corbin 1981:9-10, 12).

The lack of privacy, rights, and diverse job opportunities experienced by company town residents was balanced in some ways by the amenities of town life. By the 1940s, aside from electricity and plumbing, town life offered workers a greater sense of community than could be available in sparsely settled areas. Churches and schools provided social and educational opportunities. The company stores usually featured a broad array of consumer goods and had more generous terms for credit than stores in other towns. Women in company towns had few employment opportunities, but they also were spared the isolation typical of rural life. Men and children benefited from enhanced recreational facilities, such as the baseball fields found in most towns (National Coal Heritage Area 2011; Shifflett 1991:163).

Union organizing efforts began in West Virginia's mines during the early twentieth century and continued for decades as workers began to protest dangerous working conditions. As described by Corbin (1981), unionization of West Virginia's coal miners was a lengthy, bloody process as most coal operators opposed collective bargaining and used every means at their disposal, including force, to prevent unionization. Violent clashes occasionally took

place, such as at Blair Mountain, Paint Creek, and Matewan. After considerable struggle and loss of life, the United Mine Workers of America (UMWA) succeeded in unionizing most of West Virginia' coal miners., with many union locals still active today (Alder 2006). Coal operators' domination of company towns began to erode after workers were unionized. Improved pay rates, and requirements that workers be paid in U.S. currency rather than company scrip allowed miners to become more independent as well. With the advent of personal automobiles and associated improvements in West Virginia's road network, workers could travel away from company towns for their consumer and social needs (National Coal Heritage Area 2011; Shifflett 1991:33, 115-116).

As previously noted, many coal companies had ethnically diverse workforces made up of native whites, African Americans, and immigrant ethnic groups. Racial and ethnic tensions were common among workers. Adhering to social standards of the period, housing, churches, schools, fraternal orders, and other social institutions in company towns were racially and ethnically segregated. Coal operators of the period maintained paternal and/or prejudiced beliefs regarding minority workers that were common at the time, and accordingly limited upward mobility and job opportunity for non-white workers. Coal companies also sought to maintain a balanced mix of races and ethnicities in order to prevent one group from achieving dominance. Company towns, however, were too small to maintain complete segregation, and miners worked together underground, making for a richer cultural diversity in the towns than existed in most other parts of West Virginia (National Coal Heritage Area 2011; Eller 1982:170-171; Corbin 1981:61). The former company town of Leslie in northwestern Greenbrier County is known to have been racially segregated, with African American workers occupying housing that paralleled the nearby railroad tracks, while white workers lived in housing on a nearby hilltop closer to the mine.

During the 1950s and 1960s, most coal operators divested themselves of their company town real estate holdings, allowing miners and other employees to purchase company-owned housing and either selling or closing down company stores. Due to mechanization and a recession in the coal industry, thousands of miners lost their jobs and left the area in search of work. As a result, numerous company towns began to be abandoned. Those that remained rarely recovered from population and economic losses of the mid-twentieth century (National Coal Heritage Area 2011).

3.3 Transportation

Major railroad companies operating in eastern West Virginia during the late nineteenth and early twentieth century included the Norfolk & Western (N&W) and the Virginian. In 1881, Frederick J. Kimball of Germantown, Pennsylvania, convinced a group of investors to purchase the Atlantic, Mississippi, & Ohio Railroad, which consisted of three old lines running through Virginia and West Virginia. This entity became the nucleus of the N&W. With rail access, the Pocahontas coalfield opened to extraction, and much of southern West Virginia began to be transformed by coal mining. In 1881, E. W. Clark & Company purchased the railway and extensions of the line eventually reached Columbus and Cincinnati, Ohio (Rice and Brown 1993:185; National Coal Heritage Area 2011).

The Virginian was founded by coal operator William Nelson Page of Ansted and Standard Oil executive Henry H. Rogers of New York. In 1907 and 1908, construction work began to connect the former Tidewater Railway in Virginia with West Virginia's Deepwater Railway. The 443-mile-long railroad allowed access to previously unreachable coal reserves and contributed significantly to the proliferation of West Virginia coal mining throughout the first decades of the twentieth century. Via these railways, coal from the remotest part of West Virginia could be shipped to major markets on the Great Lakes and Atlantic coast in just a few days (National Coal Heritage Area 2011).

During the nineteenth century, the Covington & Ohio Railway was the first railroad proposed to reach Greenbrier County. Construction on the route was halted, however, with the advent of the Civil War. After the war, railroad magnate Collis P. Huntington took control of the Covington & Ohio and renamed it the Chesapeake & Ohio (C&O). Under his direction, the line was extended from Clifton Forge, Virginia, to White Sulphur Springs in eastern Greenbrier County, and ultimately reached as far west as the newly created city of Huntington (McMillion 1978:33; Rice and Brown 1993:185).

The railway quickly became the catalyst for the timber and coal industries that developed within the county. Shortly after its completion, numerous feeder lines were constructed into the rugged topography of Greenbrier and Nicholas counties. These feeders were constructed by various entrepreneurs who sought a connection between their properties and the C&O. 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. In 1927, the C&O and New York Central railroads took over the Greenbrier & Eastern and, in 1928, the Big Clear Creek subdivision was completed. In February 1929, the Nicholas, Fayette & Greenbrier Railroad Company started construction of a line between Swiss to Nallen, West Virginia. In 1931, this line was consolidated with the Greenbrier & Eastern, Sewell Valley Railroad, and Loop and Lookout Railroad to form a single entity. The following year, the C&O and New York Central assumed joint ownership of the consolidated company (Price and Heek 1939:17–18; Conley 1960:268; Rice 1986:359–360).

As previously noted, these rail lines brought development into the region and spurred the growth of many towns and settlements along their routes (Figures 4–5). Branches of the C&O and New York Central extended from Rainelle to Rupert, then north along Big Clear Creek to Anjean, Duo, to its termination at Clearco. Another branch crossed the Meadow River at East Rainelle and traveled north along Meadow Creek to Bellburn, Leslie, Crichton, Quinwood, and Marfrance (Price and Heek 1939:18–19).

Industrial innovation coupled with the proliferation of the automobile during the early twentieth century led to development of the first comprehensive network of improved roads in Greenbrier and Nicholas counties. The West Virginia legislature began attempting to codify and streamline its road-building process in 1907 with the creation of the office of state highway inspector. Shortly after, legislation was passed calling for joint state-county funding of road building. In 1913, the State Road Bureau was established, followed four years later by the creation of a two-member state road commission and classification of 4600 miles of existing roads as Class A, making them eligible for state funding of improvements. The U.S.

Congress also stepped in to encourage road building by appropriating \$200 million for the purpose; this amount was to be divided among the states according to a formula based on population, area, and postal service road mileage. By 1921, West Virginia had received more than \$2.9 million in funds through this program (Rice 1986:369–373). Construction and improvement of major highways received the most emphasis through much of the twentieth century. Within the Undertaking’s defined APE, most of the primary county roads were not paved until the 1960s and many secondary roads continue to be gravel surfaced. In western Greenbrier County and southern Nicholas County, the two-lane US Highway 20 is the principal highway and links many of the communities in the area.

Beginning in the 1920s, coal companies increasingly chose to ship coal via truck rather than rail. Railroad companies responded by merging and consolidating. The N&W acquired the Virginian in 1959 and, in 1981, merged with Southern Railway to form Norfolk Southern. After a series of mergers the C&O became the Chessie System in 1972. Subsequent consolidation led to its current organization as the CSX Corporation. Today, these two corporations own all the rail lines in West Virginia. Trucks are used for short-distance hauling of coal, and railroads continue to provide the bulk of long-distance hauling. As a result, many of the spur and feeder lines in rural areas have been abandoned while highway networks have been improved. Such is the case in Nicholas and Greenbrier counties.

3.4 Communities

As previously noted, the environs within the Undertaking’s defined APE continue to be quite rural in character. Few communities are extant, but those that exist offer a window into the APE’s history and changes that have taken place over the course of the twentieth century.

In Nicholas County, the tiny communities of Leivasy, Carl, and Green Valley are located within the APE. In Greenbrier County, nine communities are within the APE. Little information is available about the tiny community of Orient Hill. The eight remaining towns, Anjean, Duo, Clearco, Bellburn, Leslie, Crichton, Quinwood, and Marfrance, are known to be former coal mining company towns. Only a few remnants of Anjean are extant, while Duo has suffered extensive deterioration and Clearco has been entirely destroyed. Bellburn, Leslie, Crichton, Quinwood, and Marfrance still are occupied. Each of these communities is discussed below in greater detail.

3.4.1 Leivasy

Leivasy is located in southeastern Nicholas County along West Virginia Route 20. According to a highway marker within the town, the community originally was known as Meadowvale. Founded in October 1879, it included a post office and general store. Valentine Leivasy served as the first post master and store merchant. Settlers are believed to have reached the area during the 1820s, although it is not known with certainty where they settled. Surnames of the early settlers included Odell, McClung, Davis, Journelle, Callison, Bennet, McCutcheon, Nicholas, Pittsenberger, White, and Williams (Leivasy Centennial Committee 1979:2; Nicholas County Historical and Genealogical Society 1985:43). Various roads, streams, and other features retain many of these early family names.

One-room schools were in use at Leivasy by the late nineteenth century. A graded school was erected in 1950 on farmland once owned by Adam Nicholas. The school had four classrooms and a separate kitchen and dining area that served hot lunches. Lievasy's schoolchildren began to be bused to Richwood junior and senior high schools starting in 1978. A new elementary school was constructed during the early 1980s. A Baptist church was organized in the Leivasy area in June 1861. A log building initially housed the congregation, and was followed by a frame, one-room building in 1890. More recently, the Elizabeth Chapel Methodist Church was dedicated in June 1963. The Nazarene Church was organized in May 1940 (Leivasy Centennial Committee 1979:6; Nicholas County Historical and Genealogical Society 1985:43).

By the early twentieth century, a branch railroad extended from Leivasy to coal mines east of the town (Brown 1954:219). Coal mining was the largest employer in the area through much of the twentieth century. The Westmoreland Coal Company, Mill Coal Company, and Oak Ridge Coal Company still operated mines here during the 1970s, and the Leivasy Mining Corporation was active here during the early 1990s. The Leivasy Mining Corporation was a subsidiary of the Lady H Coal Company, Incorporated. The Lady H and all its subsidiaries declared bankruptcy during the mid-1990s. The Green Valley Coal Company continues to operate mines in the area and has a new, two-story office building in the center of Leivasy (Leivasy Centennial Committee 1979:6; WVOMHST 2004).

3.4.2 Carl and Green Valley

Information concerning the histories of Carl and Green Valley proved to be scant. The towns are located just northwest of the Nicholas/Greenbrier county line. The Green Valley Coal Company's works are still operational in Green Valley. A small array of light industrial and commercial enterprises also is present. These, as well as the communities' neighborhoods, generally are of recent vintage, although a small number of historic-period houses, dating from ca. 1910 through ca. 1945, are intermixed with the newer development. The two-lane State Route 20 leads from Rainelle, passes through Green Valley and Carl, and continues north to Craigs ville. Other highways branch off from State Route 20 and continue to Richwood and Summersville. The high volume of logging and coal trucks on the highway indicate that this is an important thoroughfare for local industries engaged in extractive commerce. The commercial establishments in Green Valley and Carl appear to provide services to local residents while the industrial concerns are focused more on either the coal or logging operations. None of these establishments includes architectural resources that are more than 50 years old. The Mountain Baptist Church (NI-0027-001) and 16 dwellings comprised the historical resources that were inventoried in Carl during field investigations, while three historic-period resources were identified in Green Valley.

3.4.3 Clearco

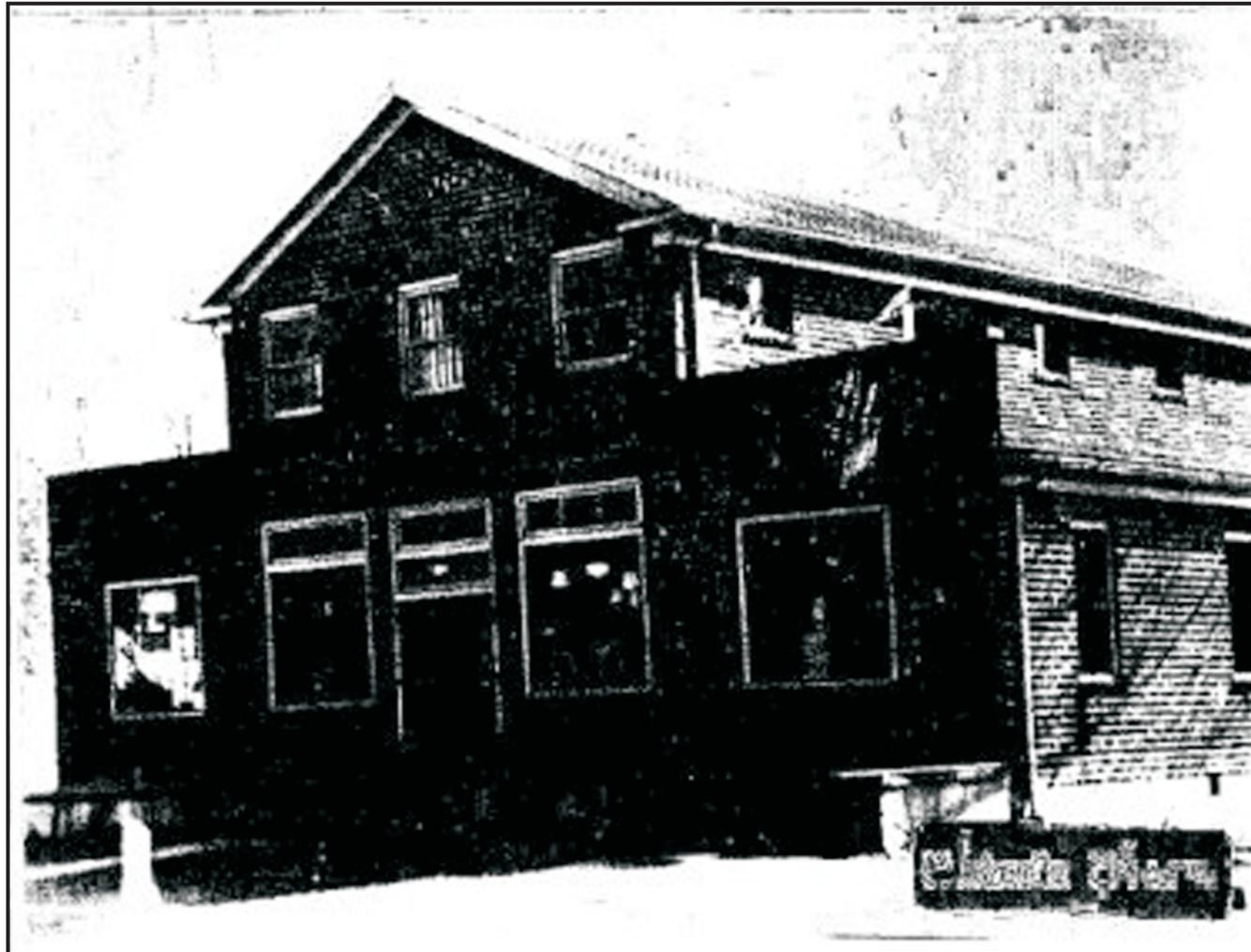
Clearco was founded by the Clear Creek Coal Company in 1929 (Figures 6-9). The former mining camp was located in the Williamsburg District in northern Greenbrier County. Situated northeast of the Duo mining camp, Clearco was served by the Big Clear Creek subdivision of the C&O and New York Central rail lines. Completion of the subdivision spurred opening of other coal camps in addition to Clearco, specifically the works of the Leckie Smokeless Coal Company at Anjean and the Raine Lumber and Coal Company at

Duo. Clearco was distinguished as being the highest elevation mine in eastern West Virginia. Workers in Clearco were employed at the Brooke No. 1 and No. 2 mines, both of which were in the Sewell seam. The Demasi Coal Company and Bryant Coal Company also operated out of Clearco for a time (Rice 1986:360; DellaMea 2011).

In December 2005, the *Bluefield Daily Telegraph* published local residents' recollections of earlier days. Lashmeet resident Carla Brown described her memories of Clearco. She alluded to the fact that the mining camp had a store, houses, and a playground, all of which were company owned. The company store was a two-story, front-gabled, frame building flanked by one-story wings on each longitudinal wall. The symmetrically ordered primary façade featured large, clear glass display windows and a centered entry (Figure 6). Its size and quality of workmanship made the company store one of the most prominent buildings in the town. Unusual for coal mining towns, the houses built for Clearco workers were constructed of brick (Figure 7). Frame construction with clapboard or board-and-batten siding typically was used for worker housing in West Virginia company towns (DellaMea 2011). In Clearco, the dwellings were one-story cubes with gently pitched, pyramidal roofs. A gable-roofed front porch spanned the primary façade. The visible windows had one-over-one sash, either single or paired. A brick flue rose from the rear slope near the roof peak. The dwellings were arranged in a linear row, with each occupying a small lot on which a miner's family would be free to raise a vegetable garden and keep small animals, such as chickens, to supplement their food supply. Clearco was considered a model company town of the time, as each house had hot and cold running water, bathrooms, and electricity (Rice 1986:361).

Community events were commonplace in Clearco, such as Christmas plays that took place in a large room over the company store. The same space served as a one-room school for miners' children, and functioned as a church on Sundays. A highlight of the Christmas play came when Santa Claus entered the room with bags of fruit, candy, and nuts for everyone. Christmas, according to Brown, was the only time of the year that the community residents had oranges. The coal company hired a Santa to go from house to house to deliver toys (purchased in advance by parents at the company store) and bags of candy that were donated by the company. The company also provided a Christmas turkey or ham to each family (Perry 2005).

Information concerning the operations of Clear Creek Coal Company is scant. A complaint filed against the company in 1980 in Tennessee was the most recent indication that it remained in operation. It is not known exactly when the mines at Clearco were shut down, or when the Demasi and Bryant coal companies undertook operations there. The mining town has been entirely demolished and the rail line once operated by the Big Clear Creek subdivision of the C&O and New York Central companies has been abandoned. A large pile of gravel has been placed on the tracks, rendering them inoperable. Very little remains at the site to indicate that a coal camp once existed here. In ca. 2000, photographs of an abandoned tipple and workshop were taken (Figures 8–9). Their general states of disrepair indicate that mining operations had ceased here a number of years earlier.



Clear Fork Coal Company Store at Clearco, Ca. 1930
(DellaMea 2011)



Company Housing at Clearco, Ca. 1930
(DellaMea 2011)



Abandoned Tippel at Clearco, Ca. 2000
(DellaMea 2011)



Abandoned Workshop at Clearco, Ca. 2000
(DellaMea 2011)

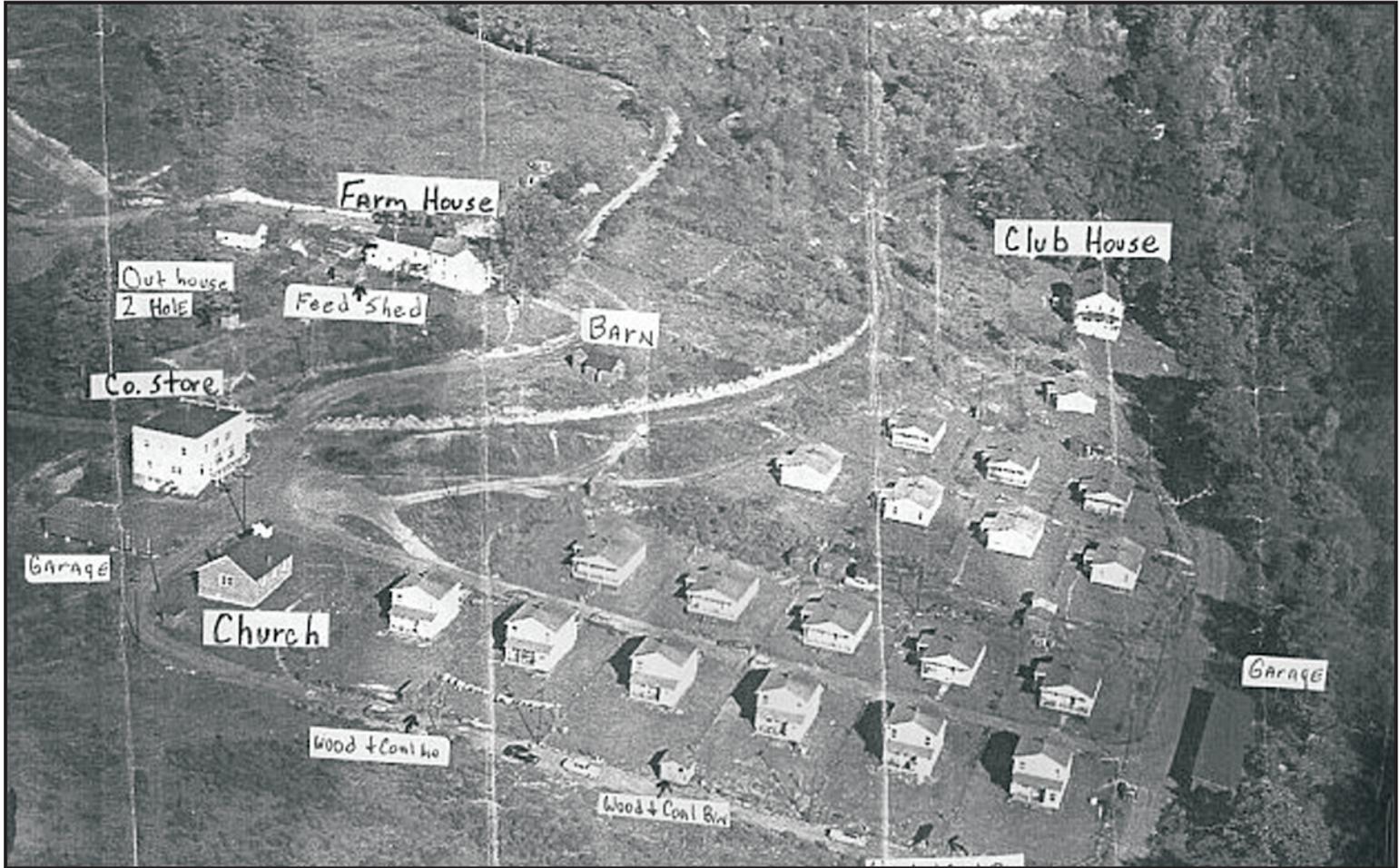
3.4.4 Duo

Duo is located in northwestern Greenbrier County on Shellcamp Ridge near the headwaters of Big Clear Creek. This former coal mining town's origins can be traced back to the mid-nineteenth century when Albert Williams established a farmstead just slightly north of present-day Duo. It was during this time that the name of Duo originated due to two families, the Williamses and the Whites, who owned large tracts of land in the area. Although the farmhouse and its outbuildings are long vanished, the Williams family cemetery (Field Number 00755) is located on a hill above town approximately 0.5 mile from the house site.

During the early twentieth century, two Pennsylvanian brothers, John and Thomas Raine, came to Greenbrier County searching for new stands of lumber to cut. The Raine brothers purchased tracts of timber on the Meadow River and established Rainelle. Quickly becoming prosperous, the brothers looked to expand and purchased a large tract of the original Albert Williams farmstead. In 1921, the Greenbrier & Eastern Railroad was completed and extended from Rainelle to where it joined with Sewell Valley Railroad. This new line was undertaken by several coal operators who sought a connection between their properties and the C&O line. In 1927, the C&O and the New York Central railroads took over the rail lines and in 1928, the Big Clear Creek subdivision of the railroads was completed. This new line spurred growth and new mines were opened almost immediately, including Leckie Smokeless Coal Company at Anjean, the Raine Lumber and Coal Company at Duo, and the Clear Creek Coal Company at Clearco (Rice 1986:356–375). In 1931, Claude and Lily Gadde moved into the large Williams farmhouse due to Claude's employment with the Raine Coal and Lumber Company to help open the mines.

By the summer of 1933, the mine at Duo officially opened and was operated by the Raine Coal Company with Claude Gadde running the camp. The large-scale surface mining and its tipple was located approximately 1 mile northwest of the town. When the coal camp was built, a rail line was constructed through the middle of town to provide transportation to Rupert, the nearest town. The train provided service on the weekends and brought workers from the outside region. Workers who did not live in the camp often stayed in the boarding house owned by the company. This large two-story house (GB-0089-0068) is located at the entrance of the camp. It was the closest building to the mines and provided refuge to many people during the harsh winter months.

Common amongst most coal mining towns, the buildings and houses emphasized functional concerns over architectural style, thus resulting in architecturally unadorned and basic standardized structures. The buildings in Duo were no exception. A mid-twentieth century aerial photograph illustrates the community's original layout and building stock (Figure 10). Typical of Greenbrier County company towns, Duo was situated on a hilltop a short distance from the coal mine. The streets and buildings were organized in a rectilinear pattern. The original Williams farmhouse, feed shed, and barn stood at the north end of town, and were quite different in scale and massing from the company-built buildings. The company store was located at the north end of the main street. This two-story, five-bay concrete block building held the post office, store, and company office, with apartments on the second floor.



Ca. 1940 Aerial View of Duo
(DellaMea 2011)

Although this building is no longer extant, the foundation is still present. Other community structures built by the company were the Duo Community Church (GB-0089-0049) located within town and the now-demolished schoolhouse located approximately 0.25 miles west of town. The schoolhouse was a one-room, one-story clapboard building with a gable-front roof covered with standing-seam metal and a central brick chimney. The camp houses were constructed by Floyd Hanson. The larger two-story houses were for the foremen and for larger families while the smaller one-story dwellings were for laborers. The lots were generous with large backyards that served as firebreaks between the detached houses and allowed tenants to have vegetable gardens.

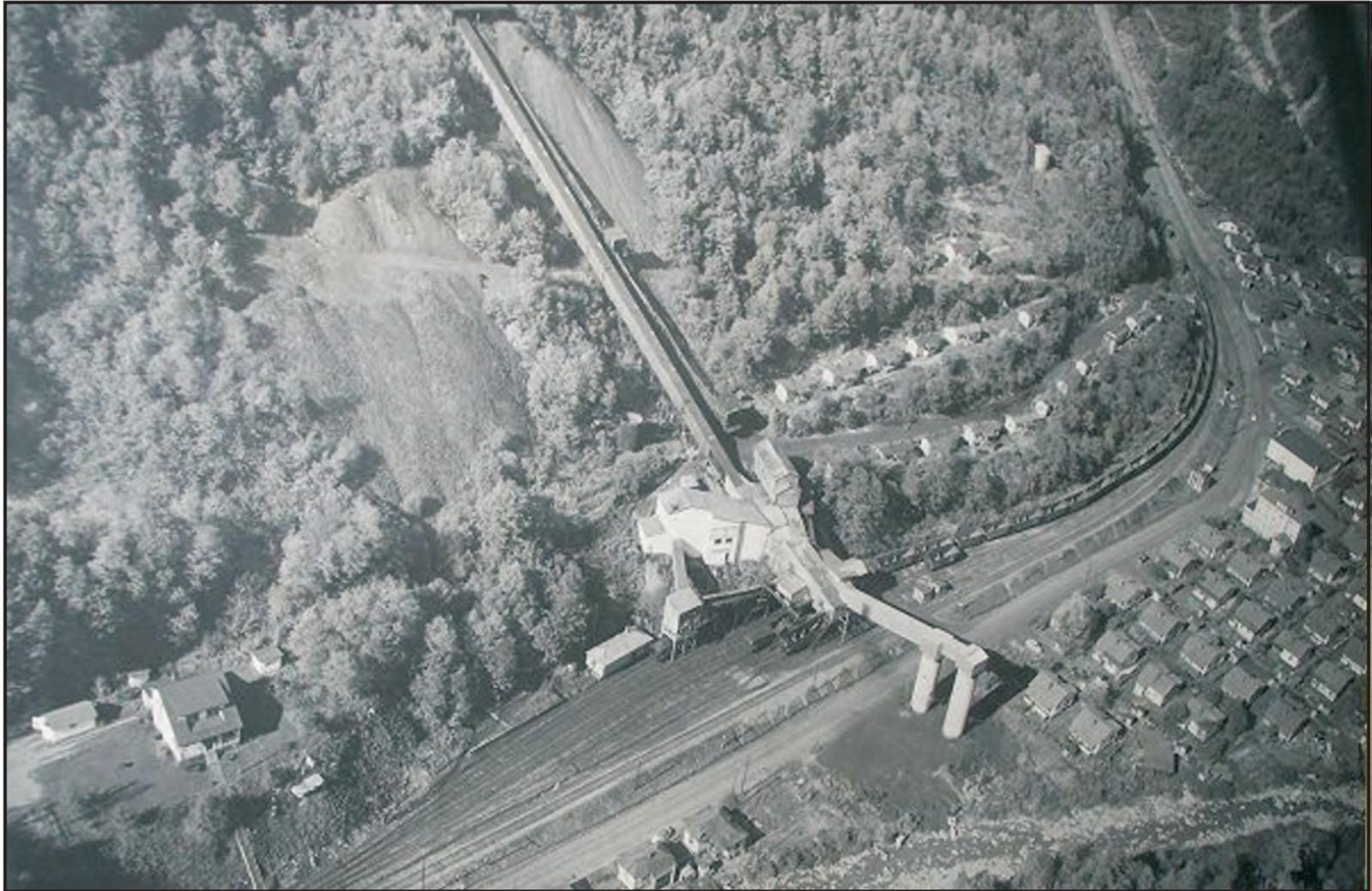
The company's coal production peaked at 163,334 tons in 1947 and gradually decreased tonnage until Raine Coal Company closed the mines in 1958. Later that same year, however, Claude Gadde and former Raine employees formed the Duo Coals, Inc., and continued to mine until 1967 when the mines permanently closed. The train tracks that ran through Duo were removed in the early 1950s when the local road network was improved. The population of Duo has dropped considerably since the peak years of mining activity, but the town continues to be home to a handful of families, and the community church has a small congregation to the present day.

3.4.5 Anjean

Located near the Greenbrier/Nicholas county line, Anjean was established as a coal mining town in 1926 by Colonel William S. Leckie and Andrew F. Leckie, owners of Leckie Smokeless Coal Company. According to a historical account, it was named after Anna Leckie, wife of William, and Jean Leckie, daughter of Andrew. The same name was used to designate a coal mine operated by the coal company. Both the post office and the railroad stop that historically served the community carried the name Anjean as well (Odor 2003:66).

Worker housing, a rail line and sidings, a mine tram road, coal tipple, and shops were built while the mines were being opened. A ca. 1935 aerial photograph of Anjean illustrate the community's original layout (Figure 11). The coal mine was at the top of the photo, and the preparation plant, loadout, and tipple were by far the largest structures in the community. The Leckies' dwelling stood a short distance west of the plant, quite removed from the workers' housing immediately east of the plant. The company store (GB-0089-0046) stood at a bend in the road and alongside the railroad tracks (Figure 12). As of October 2010, the building's roof had collapsed and it is now essentially a ruin.

The C&O and New York Central railroads operated the rail line through the newly created mining town. Mines were opened in the Sewell and Fire Creek seams and, over the years, both deep and surface mining methods were used to extract the coal. The first car of coal from the Anjean mine ran on 26 June 1928. The mine quickly proved to be successful, and additional housing was added to the town (Odor 2003:66; DellaMea 2011). Ultimately, approximately 100 houses were constructed in the camp valley. Coal mining was the town's sole industry and most of the local population worked in the mine. A few people were employed as managers and clerks in the company store and office, as postmaster and clerks in the post office, and as construction workers and engineers. Teachers, principals, and a



Ca. 1935 Aerial View of Anjean, Greenbrier County
(DellaMea 2011)



Leckie Smokeless Coal Company Store at Anjean, Ca. 1990
(DellaMea 2011)

physician also often resided in the community. For the most part, residents were of Scots-Irish, English, and Pennsylvania Dutch descent, with a small number of African Americans as well. In later years, Italian, French, Hungarian, and Spanish immigrants also worked in the nearby coal mines (Odor 2003:66–67).

A school was established in one of the houses near a section of the creek called Big Pines. The Leckie Company supplemented the teacher salaries during the early years of its operation. The mining company also constructed a four-room school and rented it to the Greenbrier County Board of Education. The school taught grades 1 through 8, while high school students traveled to a Rainelle school via a motorcar run by the C&O Railroad. In 1932, seventh and eighth grade students began attending school in Rupert, and the high school students also transferred to the newly built Rupert High School. During World War II, a new three-room school building was constructed. Enrollment later declined and only two rooms were in use. The schools were segregated by race (Odor 2003:66).

For the first 30 years of its existence, Anjean was quite isolated in the hills of northwestern Greenbrier County. During the 1950s, a paved road was completed from Anjean to join US Route 60 at Rupert, allowing the community residents much easier access to nearby towns of Lewisburg, Rupert, Rainelle, and Ronceverte. The author of a 1954 historical account about Anjean commented that, with the hard-surfaced road, residents could attend athletic events, churches, movies, and political meetings in other parts of the county (Odor 2003:67). An indication of living conditions during the mid-1950s is the litany of modern conveniences that are listed in each home. Most had radios, electric irons, and refrigerators; approximately 20 also had deep-freeze units, and 25 had television sets. As many as two-thirds of the families had a car, station wagon, or truck. Company-operated buses transported the coal miners to the mines, and the Board of Education furnished buses to transport the high school students to Rupert and Lewisburg. The Anjean school acquired its first projector and filmstrips during the 1951–1952 school year. One cultural amenity that was lacking in the community was a church. The residents adhered to a variety of denominations and none were represented in a number substantial enough to support a church (Odor 2003:67). Typical recreational activities for local residents included the town's baseball team, fishing and hunting, and car trips to places such as Florida, Washington, D.C., Ohio, Tennessee, and other states (Odor 2003:68).

Workers at the Anjean coal mine were unionized, although exactly when a collective bargaining unit was formed is not known. The coal mines at Anjean closed for a time in 1954, virtually eliminating all local employment opportunities. The author of the 1954 account stated that some families already had moved away in search of work, while others stayed in the company houses in hopes that the mine would soon re-open. During the 1960s, the Anjean community was almost entirely destroyed by a series of floods. A local resident stated that the Federal Emergency Management Agency bought out the remaining families and tore down all of the flood-damaged buildings. Ruins of two historic-period frame houses (GB-0089-0047) identified in 2006 now have been completely removed. The preparation plant formerly owned by the Leckie Smokeless Coal Company was demolished in 2001 (Figure 13). The tippie originally stood directly west of West Virginia Route 20 (Figure 14), but no trace of it is visible today. A few house trailers are all that remain in the community.



Preparation Plant Formerly Owned by Leckie Smokeless Coal Company During Demolition in 2001
(DellaMea 2011)



Anjean Tipple, Ca. 1950
(DellaMea 2011)

Mining continued in the Anjean mines through the 1990s. The Leckie Smokeless Coal Company went bankrupt in 1993. Afterward, Royal Scot Minerals operated the mine until 1999, when this firm, too, was bankrupted and the mines at Anjean closed permanently (DellaMea 2011). A West Virginia Environmental Protection Agency (WVEPA) land restoration project was started here in March 2006.

3.4.6 Marfrance

Founded in 1912, Marfrance reportedly was named for the two coal companies operating mines in the vicinity, the Margarett Coal Company and the Frances Coal Company (DellaMea 2011). Located at the headwaters of Meadow Creek, the town is a short distance west of Quinwood in northwestern Greenbrier County. During the 1920s, the C&O Railroad built an extension of its line up Meadow Creek that served Marfrance, as well as mines at Bellburn, Crichton, and Leslie (Conley 1960:268). Marfrance was incorporated in 1926 and had a population of 1,066 in 1930 (Price and Heek 1939:15). According to data published by the WVOMHST, Margarett was most active in Marfrance from the 1920s through the early 1950s. Mines 1, 2, 4, and 6 were operational during this period. Production varied, with mine number 2 producing as little as 25,742 tons of coal in 1923 and mine number 1 producing 337,268 tons in 1929 (WVOMHST 2004). Data about the Frances Coal Company's production record in this area was not available, but the firm is known to have had a mine at Marfrance during the 1930s (Conley 1960:269).

3.4.7 Quinwood

Quinwood was founded in 1919 by Quin Morton and Walter Wood. The pair also owned the Imperial Smokeless Coal Company. The Quinwood No. 2 mine was a short distance away in Nicholas County. Both mines were in the Sewell seam of coal. The Bank of Quinwood was organized in 1921 with capital of \$50,000. Among its first officers were Walter Wood, who served as president, as well as R. M. Bell, vice-president, Granville O'Dell, vice-president, and N. H. Keller, cashier. In 1947, Quinwood became one of the few coal camps to be incorporated. At its peak, Quinwood had 3,000 miners living and working in the town. The community was large and prosperous enough to support several bars and restaurants, a hotel, a Kroger supermarket, a department store, a shoe store, and a movie theater (DellaMea 2011; Estep 2010). The company store stood at the corner of East Amick Street and Bell Boulevard (Figure 15). During the early 2000s, the building was demolished and the Coal Miners Memorial Park now occupies the site (Figure 16).

During the 1950s, mine safety began to receive increasing emphasis, largely as the result of federal and state initiatives to improve safety records. In 1954, the Imperial Smokeless Coal Company established its first mine rescue team. The team consisted of 6 foremen and engineers: Dick Nesselrotte, Glen Shannon, Bill Coffey, M.D. Legg, Friday Hambrick, and Jim Estep. As spaces opened up on the team, other miners were added. Training took place once a week for two hours, four times a month. The state of West Virginia paid miners four dollars for each day of training and Bill Derring, a state mine inspector, helped with training the team (Estep 2010).



Imperial Smokeless Coal Company Store (Left Half of Building), Ca. 2005
(DellaMea 2011)

55



Coal Miners' Memorial Park in Quinwood on Site of Company Store in 2008
(DellaMea 2011)

In 1968, Westmoreland Coal Company purchased mines from Imperial Smokeless Coal Company. At the time, these, along with purchases from Sprague & Sons, made Westmoreland the largest coal-only firm in the industry. During the 1980s, the assets formerly associated with Imperial were sold to the aforementioned Lady H Coal Company, which went bankrupt during the mid-1990s (Westmoreland Coal Company 2011).

3.4.8 Crichton

Crichton dates to the early twentieth century, when both the Johnstown Coal & Coke Company and the Meadow Creek Coal Company operated mines in the vicinity. Johnstown's mine opened in 1921 and remained active for 30 years. Meadow Creek appears to have operated a mine here only during the 1920s (DellaMea 2011; WVOMHST 2004).

In 1923, William B. Crichton had a schoolhouse (GB-1128) with eight classrooms and an auditorium built on a site between Crichton and Quinwood. The building later was sold to the Meadow Bluff District Board of Education and it remains in use today. Historically, the school's enrollment came from several mining towns in the area, including Bellburn, Crichton, Leslie, Marfrance, Nutterville, and Quinwood. Over the years, a series of improvements took place as the school's facilities were expanded. In 1937, W. B. Crichton paid for construction of a football field at the school. In 1946–1947, decommissioned barracks buildings were purchased to house a cafeteria and the home economics department. A second football field was donated by Johnstown Coal & Coke in 1956 and the Quinwood Rotary Club donated lights. A new cafeteria and lunch room followed in 1966–1967. Eventually, the school was expanded with 24 additional classrooms, a gymnasium, and a new auditorium. Now known as Crichton Elementary School, the school's enrollment reached 700 students by the early 2000s (Browning 1993:99; Anonymous 2003:77).

Crichton retains much of its original grid layout and housing stock. According to a local resident, the side-gabled dwellings were for mine workers and their families, while pyramidal-roofed dwellings housed managers. A bathhouse for the miners once stood between Crichton's First and Second streets. On the town's eastern outskirts, the company store once was located near the schoolhouse, but it is no longer extant. The Crichton United Methodist Church also is on the east side of town and appears to house a congregation today.

3.4.9 Leslie

Leslie was named for Leslie Nelson, owner of the Nelson Fuel Company (DellaMea 2011). John B. Laing, a businessman based in Lewisburg, played a major role at the Nelson Fuel Company and focused his efforts on extracting coal resources in western Greenbrier County. His father, James Laing, emigrated to the U.S. from Scotland in 1867. The elder Laing also was involved in the coal industry and, at age 20, John Laing joined him in the business. Laing's first mine operation was at Sun and the Lanark Mine in Raleigh County. After selling his interest in the mine, Laing relocated to Lewisburg, where he lived for the rest of his life. Laing also was instrumental in organizing the Greenbrier & Eastern Railroad in 1919 and served as its president for a time. Other offices held by Laing include vice-president of the Lewisburg & Ronceverte Electric Railway, president of the Lewisburg Seminary, director of the Bank of Lewisburg, and president of the McKinley Land Company, the Laing Mining Company, and the Craig-Giles Iron Company. He also was noted for building the first all-

steel tipple, located in Monroe County; the tipple had five loading tracks and a supply track for preparing coal (Callahan 1923:188). Property associated with John B. Laing in Lewisburg is listed in the NRHP as part of the South Church Street Historic District (#87002528).

During the 1920s, the C&O Railroad built an extension of its line up Meadow Creek that served Leslie, as well as mines at Bellburn, Crichton, and Marfrance (Conley 1960:268). At an unknown date, the Johnstown Coal and Coke Company and the New River & Pocahontas Consolidated Coal Company took over mine operations at Leslie (DellaMea 2011). Today, the town of Leslie is distinguished by its historical housing pattern, which is intact to some extent today. The town consisted of two parts, segregated by race. African-American workers occupied housing along the Meadow Creek bottom, which was paralleled by railroad tracks and, later, by West Virginia Route 20. A segregated church and school were provided as well. White workers occupied housing on a nearby hilltop, closer to the mine.

3.4.10 Bellburn

John Bell and H. H. Blackburn founded Bellburn in 1918. The Greenbrier Smokeless Coal Company operated a mine here during the 1920s and 1930s. The company also ran the Crichton No. 2, Greenbrier, and Laurel Creek mines into the 1940s. A ca. 1925 view of the company store at Bellburn shows that the building stood adjacent to the railroad tracks through town (Figure 17). The two-story, side-gabled, frame building stood on a pier foundation, with a wooden boardwalk spanning the primary façade and wrapping around to the gable end wall next to the tracks. The stylistically unadorned building featured a symmetrical fenestration pattern with a centered entry and flanking windows with multiple-light sash. The dirt roads and dense woodlands crowding the back of the building are indicative of the relative rawness of the town's development to that date. During the 1920s, the C&O Railroad built an extension of its line up Meadow Creek that served Bellburn, as well as mines at Crichton, Marfrance, and Leslie, but it is not known if the tracks shown in Figure 16 belong to this firm (Conley 1960:268).

In Bellburn, the managers' housing was located at the bottom of a hill, just off present-day West Virginia Route 20. Workers' housing was placed on an adjacent hilltop. A church, school, and company store were also in the town. The church is still extant today, while the other two buildings are no longer extant. Mining continued to take place in the vicinity until fairly recent years, when the A. T. Massey firm operated a mine here as the White Buck Coal Company. The preparation plant and loadout at Bellburn dated from this period (Figure 18).

3.4.11 Orient Hill

Very little information was discovered about Orient Hill, including whether it was historically associated with a coal mining company. One road in the town is named Coalfield Drive and another is named Ball Diamond Road, both of which seem indicative of a coal company association. It is located along West Virginia Route 20, which became a principal highway through western Greenbrier County during the 1920s, and is a short distance southeast of Bellburn. Situated on moderately hilly terrain, Orient Hill is laid out in an irregular pattern, with side streets winding away from Route 20. The housing stock generally



Greenbrier Smokeless Coal Company Store in Bellburn in 1925
(DellaMea 2011)



A. T. Massey Company Loadout in Bellburn, Ca. 2000
(DellaMea 2011)

dates from the early to mid-twentieth century. There are two churches in the community and a cemetery is on the west side of town. The earliest grave identified within the cemetery dates from 1934.

3.5 Architecture

Within the Undertaking's defined APE, the built environment includes resources that were constructed from the nineteenth century through the mid-twentieth century. A variety of vernacular architectural resource types is extant, including company towns and specific building types associated with them, such as pyramid, bungalow, front-gable, and side-gabled dwellings. Most of the inventoried buildings within the APE were constructed of locally available building materials, including timber, stone, and brick. With the lumber boom of the late nineteenth century, machine milled building materials became readily available and are found on the vast majority of buildings inventoried during the course of this historical architectural investigation. Specific examples of extant resource types are discussed in greater detail below.

3.5.1 Company Towns

During the early twentieth century, coal mining emerged as a major industry in West Virginia. Heavy reserves of bituminous coal and the merger of the Greenbrier & Eastern railroad with the C&O and New York Central railroads catapulted the region as a major coal producer and stimulated the growth of coal towns. The success of the mines depended highly upon the maintenance of a large and loyal workforce. Many companies built towns with worker housing and services relatively close to the worksite "to increase productivity and profits by attracting labor, reducing job turnover, and establishing control over the labor supply" (Mulrooney 1991:130). Upwards of 20,000 company towns existed in the United States between the early 1900s and the late 1960s. With the formation of these towns, coal companies provided a stable living environment for their workers, as well as benefited from maintaining a permanent workforce. Establishment of company-owned stores provided a modest income stream as well, as the remote locations of many camps limited residents' options for purchasing the goods they needed. Although these once-lively coal towns have become increasingly scarce, the histories of company towns offer valuable insight into the coal mining heritage in the APE.

Four types of company towns have been identified in West Virginia. The block pattern features a uniform system of closed blocks. The linear pattern has a single street with houses on one or both sides. The cruciform pattern is similar to the block, but with more open streets than closed blocks. The fragmented pattern is laid out over a divided area. In most cases, the more uniformly laid out towns resulted from formal designs created by the mining company.

Within the APE, all of these former company towns have lost a considerable percentage of their original building stock, making it difficult to use field observations to ascertain their original layouts. Information gaps can be filled with analysis of historical topographic maps and, in some cases, aerial views. Of the towns discussed above, Duo is the closest to having a block pattern (Figures 10; A3). Dwellings originally were placed along two parallel streets, with the company store, community church, and supervisor's house located at the north (top)

end of the block. An analysis of topographic maps and aerial photographs suggests that Anjean's layout originally was quite similar (Figures 11; A3). Marfrance has a more linear pattern comprised of a principal street that runs on a northeast/southwest axis with houses lining both sides of the street (Figure A3). A second street branches off from the main street and turns to run parallel to it, with another row of houses along its east side. Crichton appears to have had a cruciform plan, with various side streets radiating from the main thoroughfare (Figure A3). Quinwood, Bellburn, and Leslie are more fragmented in their layouts. At Quinwood, the blocks of original worker housing occupied a hilltop while the company store, other commercial buildings, churches, and the post office were in the creek bottom (Figure A3). A similar pattern is seen at Bellburn (Figure A3). Placed on a hilltop above the mine, the workers' housing ranged along three parallel streets. At the base of the hill, managers' housing and a community church stood alongside the mine access road. Leslie's fragmented layout owed in part to the racially segregated housing found here (Figure A3). On a hilltop close to the mine, white workers occupied housing arranged in a block pattern. In the creek bottom, where the road and railroad tracks extended, housing for African Americans was arranged in a linear pattern along both sides of the road and the east side of the tracks.

Housing types in company towns were specific to different classes of workers. Very few mine owners actually lived near their mines, so the mine superintendent usually was the highest-ranking company employee onsite. The superintendent typically occupied the largest house in the town. Middle managers, such as foremen, bookkeepers, and company store managers, as well as company-employed doctors, occupied less substantial houses. These houses usually featured at least some stylistic elements, usually either Queen Anne or classically derived (Salo 2006:744; Vuranch 2011). The superintendent's and managers' houses in Bellburn are good examples of this type of housing. In Duo, the foremen occupied two-story, front-gabled houses with one-story front porches.

Coal miners and their families had the simplest dwellings. Worker housing in each company town usually was uniform within the town. Eight types of company worker housing have been identified in West Virginia: one-story L plan; pyramid cottage; bungalow, I-style; two-story, four-room; two-story shotgun; saltbox; and two-story L plan. Heat, electricity, and plumbing usually were provided, albeit in very basic forms (Salo 2006:744; Vuranch 2011). Within the Undertaking's defined APE, the pyramid cottage prevailed in Bellburn and the now-demolished Clearco, while in Duo, Leslie, and Marfrance, the bungalow type, was used for workers. In Quinwood and Crichton, one-story, side-gabled workers' dwellings were the norm. It is not known with certainty what type of housing was most common in Anjean.

Community buildings, such as churches, schools, and company stores, usually were built and owned by the coal company. Churches and schools tended to be modestly sized and simply designed according to prevailing styles of the period (Salo 2006:744). Most churches identified in company towns within the APE feature vernacular interpretations of Gothic Revival design, mostly commonly expressed with pointed-arch windows and sash with wooden tracery. Schoolhouses featured classically derived stylistic influences, such as symmetrical fenestration, wide fascia boards at the eaves, and front-gabled massing. Company stores represented the company's day-to-day presence in community life. The store was the largest building in town, usually a two- to three-story block-shaped building with

either brick or clapboard siding. In addition to the store, company offices and the post office usually occupied the building. Some larger company towns had additional community buildings, such as a combined lodge hall and auditorium. These types of amenities were intended to reflect the coal company's prosperity as well as to provide recreational diversions for workers and their families (Salo 2006:744).

3.5.2 Pyramid Cottage

The pyramid cottage house type found in Bellburn is a small, one-story, cube-shaped dwelling with a shallowly pitched, pyramidal roof. Most of the extant dwellings in the community have extensive alterations, but common characteristics still are apparent. Built on a pier foundation, the dwelling is of frame construction with clapboard-sheathed walls. Often, the original clapboard siding has been covered with asbestos shingle, vinyl, stucco, or some other type of covering. The roofs have minimal eaves and usually are covered with asphalt shingles. In some instances, new standing-seam metal roofing has been installed. Near the center of the roof is a brick flue, indicating placement of the original coal-fired stove within the dwelling. A small, shed-roofed porch spans two-thirds of the primary façade and shelters the primary entry. Original porch flooring and railings usually have been replaced with pressure-treated lumber, and some porches have been enclosed. The dwellings appear to have originally had four rooms arranged two rooms wide and two rooms deep. Many houses in Bellburn have shed-roofed additions on side or rear elevations and these likely hold kitchens, bathrooms, or additional bedrooms. The original fenestration pattern was quite simple, with a two-bay primary façade composed of an entry and window, and two windows evenly spaced along each of the three remaining elevations. Most entries have replacement storm and interior doors; but at least one house retained a flush panel, half-glass, wooden door that may be original. Likewise, most of the windows have replacement sash, although extant examples of wood, two-over-two sash were observed on a few dwellings. Typical of worker housing in a company town, the dwellings featured no stylistic detailing or applied ornamentation, such as decorative millwork.

3.5.2 Bungalow

The bungalow house type found in Duo, Leslie, and Marfrance is a stripped-down version of a Craftsman Bungalow occurring in either a front-gabled or side-gabled form. The bungalow types in Duo and Marfrance tend to be front-gabled, while those in Leslie are more often side-gabled. The primary feature on this house type illustrating the Craftsman Bungalow influence is a shed-roofed or hipped-roofed front porch that typically spans all or most of the primary façade. Most of the dwellings have extensive alterations, but some common characteristics can be discerned. In Duo, the dwellings have pier foundations, while those in Leslie and Marfrance often have concrete block; in the latter instances, foundations sometimes appear to have been replaced or rebuilt at least once. The walls originally were sheathed with clapboard siding, but usually have been re-covered with aluminum, asbestos shingle vinyl, or some other synthetic material. The roofs usually have asphalt shingles, although rolled asphalt also was observed, and a brick flue is near the ridgeline. The porch on the primary façade is often a simple structure with square post supports. It appears that originally a closed wood railing may have been installed as well. Typical alterations to porches include replacement of original posts with pressure-treated lumber or slender metal columns, replacement of wood flooring with concrete or pressured treated lumber, and

complete enclosure of porches to create additional living space. Sheltered by the porch, the primary entry typically is centered on side-gabled houses, and placed to one side on front-gabled houses. Remaining fenestration consists of single or, occasionally paired, windows in a symmetrical arrangement. Doors and window sash usually have been replaced. Examples of what are believed to be original sash include two-over-two wood sash on houses in Marfrance and one-over-one sash in Duo and Leslie. Typical of worker housing in a company town, the dwellings originally featured no stylistic detailing or applied ornamentation, such as decorative millwork. The front-gabled houses appear originally to have had four rooms, arranged shotgun style with two rooms across the front and two across the back of the house. The side-gabled houses appear to have had four to five rooms, with two rooms spanning the front and two to three rooms across the back. Additions and alterations are common on the dwellings in Marfrance and Leslie, and often all but obscure the dwelling's original form. In comparison, the houses in Duo retain more historical fabric, but are more physically deteriorated.

3.5.3 Gable-Front

The gable-front shape emerged with styled houses of the early twentieth century, especially those associated with the Arts and Crafts movement. Partly following housing trends, coal camps around Greenbrier County used the gable-front house type. This form allowed the camp owner to construct dwellings on narrow lots, which placed workers in close proximity to the mines and maintained a compact setting. Largely lacking in stylistic detailing, these modest folk houses were usually one- or two-story, double-width forms with low-pitched roofs, a full-façade porch and exposed rafter ends. Interior plans usually ranged anywhere from four to six rooms and generally did not allow for additional rooms to be added. These houses were easy to build and inexpensive for the camp owners to construct, making them popular in coal camps throughout Greenbrier County. Duo retains several examples of two-story, gable-front houses; these were built to house foremen and managers at the mine.

3.5.4 Side-Gable One-Story

Found in Quinwood and Crichton, this dwelling type is typically one story in height, two rooms wide and two rooms deep, and features a shed-roofed front porch. A variety of foundation materials are extant, ranging from brick to concrete block to piers, and it is not immediately apparent which are original. The walls historically were clad with wood clapboard siding. A number of replacement siding materials, especially aluminum and vinyl, are now extant. Asphalt shingles usually cover the side-gabled roof, but standing-seam metal is a common material as well. Where present, the brick flue usually rises from the front roof slope near the ridgeline. Many of the side-gable housed in Quinwood and Crichton now lack flues, presumably as a result of replacement heating systems and roofing materials. A shed-roofed porch is centered on the primary façade and typically features square wood posts. Very often, the porches have been enclosed to create additional living space. Placement of the porches suggests that primary entries most often would have been centered on the façade and flanked to either side by windows. The gable end walls usually have two evenly spaced window openings. The windows appear originally to have had two-over-two sash, but vinyl replacement sash are very commonly found. On most houses, the rear roof flares outward at a shallow angle to make the back rooms slightly deeper; these areas often have been subjected to remodeling to create additional living space, covered patios, and other features.

3.6 Churches in Greenbrier and Nicholas Counties

Three major Protestant Christian religious denominations have been active in Greenbrier and Nicholas counties since the late eighteenth century. The Baptist, Presbyterian, and Methodist denominations each founded a number of churches, many of which are extant today and still host small congregations. Historically, church congregations were racially segregated. Such segregation originally was dictated both by law and social custom, and since the 1960s, largely has continued because of social custom. Churches associated with the Baptist and Methodist denominations have been identified within the APE for the current historical architectural investigations.

3.6.1 Baptist Denomination

Adherents to the Baptist denomination arrived in Greenbrier County by 1775, when Reverend John Alderson made three missionary visits over the course of two years. In early 1777, he and his family moved permanently to the county, settling on the bank of the Greenbrier River. A community later grew up around the farmstead and was named Alderson in his honor. At that time, Greenbrier County remained on the frontier of western settlement, and Alderson traveled from fort to fort to preach. He soon claimed 12 members, including himself and his wife, and the Greenbrier Baptist Church officially was organized in November 1781. The congregants lived as much as 20 miles apart, a great distance at a time when roads were scarce and poorly maintained. In Alderson, ground was broken for a church in May 1784 and upon its completion it reportedly was the first church building erected in Southwestern Virginia (Comstock 1974:175–176; McMillion 1978:35). At the time of its organization in 1781, the congregation considered itself a part of the Lynville Church in Rockingham County. A year later, it joined the Ketokton Association. In 1801, sufficient numbers had been achieved to allow creation of the Greenbrier Association and Alderson's congregation became a part of this church body (McMillion 1978:35).

During the late eighteenth and early nineteenth century, African Americans and whites attended the same churches, with African Americans required to stay in segregated areas, such as balconies. African Americans held no leadership roles in these organizations. The first Baptist congregation in present-day West Virginia to be organized by African Americans was located in Kanawha County in 1852. Similar congregations soon proliferated throughout the state. African American churches initially were supervised by white church organizations, but by 1900, an African Baptist organization had been established to function autonomously of whites' groups (Writer's Program West Virginia 1946:137).

Within the Undertaking's defined APE, the Rome Baptist Church in Leslie is a historical African American Church built in 1944. Other Baptist churches within the APE include the Orient Hill Baptist Church, the First Baptist Church of Quinwood, and Mt. Urim Baptist Church (NI-0026-0192) dating from 1885. Of this group, only Mt. Urim Baptist Church (NI-0026-0192) is anticipated to have views of the Undertaking and it has been documented with an HPI form (Appendix G).

3.6.2 Methodist Denomination

Methodism arrived in the Greenbrier region when a Methodist Society was organized in 1784 near Keenan in Monroe County. Two years later, the Old Rehoboth Church, a modest log structure, stood as the first Methodist church west of the Allegheny Mountains. Edward Keenan provided the land on which it was built, while Reverend William Phoebus served as the first pastor. Gilboa Methodist Church was established about 1.5 miles east of Frankford in Greenbrier County by 1791, followed by a church in Sunlight around 1796; in Lewisburg in 1800; and in Frankford itself in 1820. Beginning in 1844, the Methodist denomination began to suffer schisms as congregants disagreed over the issues of slavery and abolition (McMillion 1978:49). After the Civil War, most of the congregations remained intact. The Methodist denomination continued to grow through the late nineteenth century as the local population increased.

Methodist churches within the current APE generally date from the early twentieth century, when coal company towns began to be established in northwestern Greenbrier and southeastern Nicholas counties. The Crichton United Methodist Church (GB-1119) is located at 158 School Street, Crichton. The Quinwood United Methodist Church (GB-1064) is at 137 Church Street, Quinwood. The Hilltop Methodist Church (NI-0026-0199) is located on County Route 17 in Nicholas County. These three churches are anticipated to have views of the proposed Undertaking and have been documented with HPI forms (Appendix G). The Bellburn United Methodist Church was established in 1915 and the current structure was built in 1954; it is not anticipated to have views of the Undertaking.

3.7 Public Education and Schools

The earliest schools in Nicholas and Greenbrier counties were privately supported “field schools”. These were organized on an ad-hoc basis in frontier communities. Parents of school-age children paid tuition for students to attend the schools. Teachers were paid in room and board, as well as a very small salary. Few standards existed regarding the content of the curriculum or the length of the school year. Limited family resources often meant that only boys were sent to school. Racial segregation of schools was the norm as well, and in many places it was illegal to teach African-American children to read and write (McMillion 1978:42; Wright 1961:np). In 1793, 15 young men were organized into a class in the Meadow Bluff District. The first schoolhouse in the district was erected by 1800. In the Williamsburg District, William Cavendish taught at a field school in 1796 (McMillion 1978:42).

No formal provisions existed for the establishment of a free public education school system in West Virginia until after the Civil War. During the early to mid-nineteenth century, the Virginia Literary Fund worked to assist poor children with school expenses. With the aid of this organization, 1,300 primary schools operated in western Virginia by 1850 (Anonymous 2006). Many families found the acceptance of such aids to be embarrassing and chose not to utilize the program (McMillion 1978:42; Brown 1954:228–229). In 1830 in Nicholas County, of the 150 poor children identified as school-age, 99 attended the county’s 18 schools. Average attendance for each child was approximately 52 days (Brown 1954:228).

The Virginia legislature passed the Free School Act of 1846, which provided that each county should be divided into precincts. The precincts could be further subdivided into as many districts as were required to meet the needs of the school-age population. A board of commissioners was to be elected to serve as a school board in each county. This board, in turn, appointed 3 trustees for each school district. The trustees were responsible for selecting the sites of schools and overseeing construction and maintenance of buildings. The school board also was responsible for hiring teachers. Financing for the system was provided by the Virginia Literary Fund and by taxes collected at the county level. Each county, however, had to agree to participate in the system by a two-thirds vote of the local population, and most chose not to do so (Brown 1954:228).

Although the 1846 law proved to be unpopular at the time of its passage, it provided the framework for the free public school system that was adopted in West Virginia following the Civil War. A more standardized curriculum also was set, with approved textbooks covering the subjects of reading, arithmetic, grammar, geography, and history. Funding to support the schools came from personal and property taxes, as well as an invested school fund and proceeds from forfeitures, confiscations, and fines. This broad-based public support removed the stigma of the antebellum system that had given tuition assistance only to poor children. By 1881, Greenbrier County had 4,657 students enrolled in public primary schools (Brown 1954:229, 231; McMillion 1978:42; Rice 1986:412).

Racial segregation was the norm in West Virginia's schools through the late 1950s. Enumerations of student enrollment were broken down along racial lines, providing a glimpse into the relative progress of each population's education. For example, in 1900, Greenbrier County has 4,880 white children enrolled and 500 African-American children. For white children, there were two high schools and 163 grade schools in the county, while African-American children had one high school and 12 common schools. The average length of the school year was 127 days (Rice 1986:412). The coal company town of Leslie reportedly had a school for African-American children along present-day West Virginia Route 20. The building is now a single-family dwelling. It is not anticipated to have views of the Undertaking and has not been documented with an HPI form.

By the 1920s, there were 190 one-room schools in operation throughout the county, but graded schools were becoming more commonplace as well. As mentioned previously, in 1923, William Crichton subsidized construction of a four-room public school on the east side of the coal company town of Crichton (GB-1128). After World War II, Greenbrier County conformed to national trends to consolidate small schools into larger, more centrally located facilities. Schools also were racially desegregated during this period. The school at Crichton was repeatedly enlarged and modernized to continue meeting educational needs. It continues to be in use today and is now an elementary school. The building is anticipated to have views of the Undertaking and has been documented with an HPI form (Appendix G). No historic-period school buildings were identified in Nicholas County within the APE.

4.0 RESULTS OF INVESTIGATIONS

4.1 Historic Architectural Resources

4.1.1 Previous Investigations

Four historic architectural surveys have been conducted in Nicholas and Greenbrier counties in the past 30 years. At least some architectural resources identified during each survey are within the APE for the current investigation. The Nicholas County Historic Landmarks Commission commissioned two historical architectural surveys that included areas located within the APE. The Nicholas County Magisterial Districts Survey was completed by Michael Gioulis in 1986–1987. A magisterial district is an administrative unit within a county. A total of 170 properties were identified during the course of the survey. Of these, 8 were located in the Kentucky District and 27 were in the Wilderness District.

The Kentucky-Wilderness Districts/Phase II Intensive and Reconnaissance Historic Resource Survey was completed by Michael Gioulis in 2004. In addition to updating the 1986–1987 survey, this report consisted of a comprehensive survey of 88.9 square miles in the Wilderness District and a reconnaissance survey of 118 square miles in the Kentucky District. A total of 95 historic properties was included in the survey effort. Thirty-eight of these were located in the Wilderness District, while the remainder in the Kentucky District. Five resources also were identified as potentially NRHP eligible (NI-0027-0016, NI-0027-0017, NI-0027-0022, NI-0027-0042, and NI-0027-0053). The Eureka Church (NI-0027-0042) is the only one of these that is within the Undertaking's defined APE. It was re-evaluated in 2006–2007 and recommended as eligible for inclusion in the NRHP (O'Bannon and Sweeten 2007); it is listed in the WVDCH database as being NRHP-eligible.

In 1990 in Greenbrier County, the Williamsburg District Survey was completed by the Greenbrier Cultural Foundation. A total of 223 inventory forms were completed for properties in the Williamsburg vicinity. This survey's parameters included resources that were 35 years or older at the time of survey. All of these resources now are at least 50 years of age or older. The survey area began at Friar's Hill, where the previous Spring Creek Watershed survey had terminated. It extended southwest to the community of Cornstalk. Local researchers identified pioneer settlement and the Civil War as two of the most significant historical events in the area.

In 2006, Gray & Pape contracted with BHE Environmental, Inc. (BHE), to undertake a historical architectural survey for the proposed Beech Ridge Wind Energy Facility. BHE requested that a reconnaissance-level historical architecture survey be conducted to inventory all above-ground cultural resources, including updating forms for previously inventoried properties within an APE. Fieldwork conducted during the course of this survey was designed to provide the client with definitive information on the current condition of each inventoried resource. The survey also entailed identification of potentially significant cultural and historical landscapes and districts.

The findings of the architectural survey were presented in *Architectural Investigations for the Proposed Beech Ridge Wind Energy Facility, Greenbrier, Nicholas, and Pocahontas Counties, West Virginia* (O'Bannon and Sweeten 2007). This report was submitted to, and approved by, the WVDCH, and is on file in the WVDCH's permanent archives. The WVDCH concurred with all NRHP eligibility recommendations presented in the report.

During the course of investigations, four historic districts were identified and recommended as eligible for inclusion in the NRHP. These were the Duo Historic District, Robins Fork/Boggs Run Roads Historic District, Williamsburg/Trout Historic District, and Friars Hill Historic District. Only the Duo Historic District is within the APE for the current investigation.

Three thematically grouped resource types were identified as eligible for the NRHP: Rural Churches, Rural Cemeteries, and Rural Schools. Nine rural churches that are individually NRHP-eligible were identified: Eureka Church (NI-0027-0042), Liberty Methodist Church (NI-0002-0150), Beulah Methodist Church (GB-0038-0043), Rock Camp Community Church (GB-0038-0047A), Olive Baptist Church (GB-0038-0107B), McMillion Methodist Church (GB-0038-0181), First Baptist Church of Trout (GB-0040-0141), New Salem Methodist Church (GB-0040-0086), and Lacy Presbyterian Church (GB-0040-0186). These churches also were treated collectively as a multiple property submission. Only Eureka Church (NI-0027-0150) and Liberty Methodist Church (NI-0002-0150) are within the APE for the current investigation. Both resources were field-checked in 2010 and no major changes had occurred to either of them. Of the two, only Eureka Church (NI-0027-0150) is anticipated to have views of the Undertaking.

Thirteen rural cemeteries also were recommended individually NRHP-eligible and as a thematic group. These resources are Field Site Numbers 00008; 00010; 00018; 00043; 00044; 00046; 00050 (GB-0038-0102A); 00351; 00367a; 00706a; 00755; 00775a; and 00793a. Four schoolhouses were recommended to be NRHP-eligible individually and as a thematic group. These are Boggs Run School (GB-0038-0071); a school located on a former farmstead (GB-0089-0115); Old Rock Camp School (GB-0038-0063A); and Old McMillion School (GB-0089-0075). None of these resources are anticipated to have views of the Undertaking.

Gray & Pape's field investigations identified 21 resources recommended as individually eligible for the NRHP. They include 11 farmsteads (GB-0038-0041, GB-0038-0062, GB-0089-0117, GB-0040-0087, GB-0038-0184, GB-0038-0183, GB-0040-0091, GB-0040-0094, GB-0040-0042, GB-0040-0117, and GB-0040-0118); 8 dwellings (GB-0089-0125, GB-0038-0099, GB-0040-0056, GB-0040-0066, GB-0040-0099, GB-0040-0097, GB-0040-0129, and GB-0040-0026); 1 commercial building (GB-0089-0046); and 1 gristmill (GB-0040-0138). None of these resources are anticipated to have views of the Undertaking.

4.1.2 Current Investigation

Gray & Pape conducted archival research and architectural field survey for the Undertaking in October 2010. The preliminary findings of field investigations were as follows:

- Approximately 50 architectural resources within the current APE were previously inventoried during the 2006–2007 investigations; 20 were in Duo, eight in Greenbrier County, six in Nicholas County, and 16 in Carl. Of this number, 13 have major changes and the remaining 37 resources have had no substantive changes. “Major changes” include, but are not limited to, alterations such as new additions, demolition in whole or in part, and/or replacement or removal of character-defining historic fabric such as original sash, siding, doors, and decorative elements.
- In the Undertaking’s defined APE, the area previously unsurveyed encompasses roughly the western one-third of the total APE. This area includes the communities of Quinwood, Marfrance, Crichton, Leslie, Bellburn, Orient Hill, and the southern portion of Leivasy, as well as rural portions of Nicholas and Greenbrier counties.
- All newly identified architectural resources within the APE were digitally photographed and their locations recorded on survey mapping. A total of 425 historic-period resources were recorded during the field investigations. In addition to individual resources, Gray & Pape’s survey team took representative photographs of landscape features and annotated field maps with the goal of assessing the potential for rural historic districts and/or landscapes.
- Electronically generated viewshed analyses were used to assess the likelihood of visual effects on historic-period resources as a result of construction of additional WTGs at the Beech Ridge facility (Figures A1–A4). The viewshed analyses took into account topography and vegetation in establishing the visibility of WTGs from locations throughout the APE (Figures A5–A6).

Appendix C lists in tabular format all of the newly identified and previously identified historical architectural resources located within the Undertaking’s defined APE. Appendix D lists all of the newly and previously identified architectural resources within the APE that are anticipated to have views of the Undertaking.

Gray & Pape documented a total of 206 historic-period resources that are likely to have one or more WTGs within their viewsheds if the Undertaking is constructed. All newly identified resources with anticipated views of the Undertaking were documented with HPI forms. For resources identified during the 2006–2007 investigation, *only those that had major changes* and are anticipated to have views of the Undertaking were documented with updated HPI forms. All other historic-period resources with anticipated visibility of the Undertaking that were documented during previous survey efforts received updated HPI forms. The previously identified NRHP-eligible Duo Historic District also is likely to have views of the Undertaking. HPI forms for individual resources within the district that have had major changes since 2006–2007 have been updated. Appendix E lists all historic-period resources with anticipated views of the Undertaking and NRHP-eligibility recommendations for each.

Appendix F lists previously and newly identified resources within the APE that were not documented with HPI forms as part of the current investigation because they are not anticipated to have views of the Undertaking.

All HPI forms completed for the current investigation are presented in Appendix G, and photo logs for photographed resources are in Appendix H. An acoustical study was completed in February 2011 (Acentech 2011). Findings of the analysis indicate that the Undertaking will not be audible from historic-period resources within the APE. In Appendix I, the full text of an acoustical study for the Undertaking is provided.

Documentation of newly identified resources with altered viewsheds is as follows. In addition to digital photographs, field observations and other information were collected and used to generate an architectural description of each resource. All information gathered was recorded on WVDCH HPI forms, as well as data pertaining to historical use, construction date, and current condition. This information, along with archival research, was used to develop a statement of significance for each resource. Gray & Pape's fieldwork investigations also considered each resource within the context of rural historic districts and/or landscapes.

The current historical architectural investigation focuses on identification, documentation, and NRHP-eligibility evaluation of historic-period resources that may have their viewsheds altered if additional WTGs are constructed. Formal determinations of NRHP eligibility for these resources, assessment of effects, and recommendations for mitigation if any adverse effects are found will occur during subsequent stages of historical architectural investigations for the Undertaking.

4.2 Landscapes and Rural Historic Districts

Similar to investigations carried out in 2006-2007 (O'Bannon and Sweeten 2007), Gray & Pape's fieldwork investigations also considered each resource within the context of rural historic districts and/or landscapes. The APE defined in 2006-2007 and the APE for the current investigation overlap in places. Those areas that were photographed and described in 2006-2007 were not re-photographed and re-evaluated as part of the current investigation.

For those areas of the current APE that had not been subjected to previous evaluation, Gray & Pape documented the existing landscape with digital photographs, presented in Appendix B of this report (Plates B1-B70). The key to photographs is included in Figures A1 and A3, which are provided in Appendix A. This documentation was conducted in order to identify any potentially significant historic and/or cultural landscapes within the Undertaking's defined APE. The photographs and the following discussion begin with Nicholas County in the northwest portion of the APE (Figure A1) and continue south to the area within the APE located in Greenbrier County (Figure A3). For each portion of the APE, the images and narrative descriptions are presented in order as they appear on the figures depicting that area. The discussion moves generally in a north to south direction through the APE.

On the northwestern side of the APE, a small portion of southeastern Nicholas County is included in the current APE (Figure A1, Plates B1-B8). This area is within the Kentucky and Wilderness districts of the county. The terrain is generally quite rugged and the overall character of the landscape is rural. The nearest community of substantial size is Richwood, a lumber boom town that is close to the Nicholas, Greenbrier, and Pocahontas county lines in eastern Nicholas County.

The small community of Leivasy straddles the boundary of the APE (Plate B1). Leivasy is located along West Virginia Route 20, which is a principal highway through the area. The road carries a steady stream of automobile and truck traffic; the trucks typically are hauling lumber and coal loads. The highway winds through the hilly terrain, generally keeping to creek bottoms and paralleling railroad beds. For much of its length through the current APE, West Virginia Route 20 features widely dispersed residential development interspersed with a number of small towns. The buildings are typically modest dwellings with outbuildings such as sheds and garages. The adjacent hillsides are usually quite heavily wooded.

Secondary roads that branch off West Virginia Route 20, such as Pittsenberger Road (Plate B2) typically are paved or gravel-surfaced, two-lane roads without shoulders. The landscape along these roads is hilly and forested. As a result, where the roads extend along creek bottoms and through hollows, the viewsheds are quite limited. Beyond widely dispersed housing, very little agricultural, industrial, or commercial activity is immediately apparent. In contrast, where the secondary roads traverse ridge lines that offer more expansive views, ongoing mining and lumbering activity can readily be seen (Plates B3–B4).

Toward the northwestern edge of the current APE, there are areas of cleared pastureland (Plate B5). Although agriculture is not a major economic activity in Nicholas County, there are numerous small farm holdings where livestock, especially cattle, are raised. Farther south, the rural setting is quite similar, with a winding country road surrounded by wooded hillsides (Plates B6–B7). Crossroads communities, such as Hominy Falls and Green Valley, usually feature a small cluster of houses, but have no commercial or industrial resources within their environs. Local residents are more likely to be employed at commercial centers such as Lewisburg or Summersville than to be farmers, miners, or lumbermen. Cleared pastureland along the ridge tops allow for expansive views in these areas (Plate B8).

Farther south, in Greenbrier County, the area within the current APE is more extensively developed (Figure A3, Plates B9–B70). County Route 1 runs in a generally north/south direction through western Greenbrier County from US Route 60 in Rupert and continues into Nicholas County. The community of Rupert is not within the APE for the Undertaking, but is worth noting for its role as a commercial and service center for residents in this area of Greenbrier County. A substantial part of Route 1's length was within the APE for the 2006-2007 historical architectural investigation. Southwest of Anjean, the road parallels Clear Creek and the C&O railroad alignment, and thus passes through relatively flat terrain that is flanked by ridgelines in the distance (Plates B9–B10). Like West Virginia Route 20, County Route 1 acts as a principal highway through the vicinity and carries a steady stream of traffic. Both truck and automobile traffic use the roadway.

In comparison, a short distance to the west is County Route 6, which is a narrow, two-lane winding road that extends along a ridgeline (Plates B11–B15). Although the road passes through heavily wooded landscapes, views of the surrounding, rolling terrain can be quite extensive (Plates B11–B12). The topography-hugging character of the road is apparent as well (Plates B13–B14) and stands in contrast to the more heavily traveled roads elsewhere in

Greenbrier County. Development along the roadway is quite limited, and consists of widely dispersed single-family dwellings (Plate B15).

The character of County Route 2 is quite similar to that of County Route 6 (Plate B16). Although the setting appears quite pastoral, topographic maps indicate that strip mining has occurred in several places along this road. Reforestation and land reclamation efforts, however, have masked the effects of such industrial activities. The landscape through which the road passes is quite level in some places (Plates B17–B18). Open pastures and fences indicate that livestock have been raised here at least some of the time. The same characteristics are present a short distance farther north (Plates B19–B20). Areas such as these are indicative of the agricultural heritage of Greenbrier County, where farming historically comprised a major aspect of economic activity. Similar conditions are repeated along the length of County Route 2, including formerly strip mined areas that have been reforested (Plate B21), as well as open pastures enclosed by post-and-wire fences and surrounded by woodlands (Plates B22–B23). Very limited development has occurred along County Route 2, and the built environment primarily features widely dispersed single-family dwellings and farmsteads.

As previously noted, West Virginia Route 20 passes through a part of northwestern Greenbrier County where extensive coal mining activity occurred. For part of its length, the road is co-located with U.S. Route 60 as it passes through the towns of Charmco and Rainelle. Charmco is a former coal company town that now features a variety of small commercial enterprises, residential neighborhoods, and schools. Established during lumber boom years of the late nineteenth century, Rainelle is a larger town in which the lumber industry continues to play a significant role in the local economy. Although Charmco and Rainelle are not within the Undertaking's defined APE, both are within approximately one mile of the APE's southwestern boundary.

Within the Undertaking's defined APE, a half-dozen communities are located along Route 20 and most have their origins in the early twentieth century when mining began on a large scale. The first community encountered is Orient Hill (Plate B24). Most of the town is situated east of Route 20, with more recent development placed west of the roadway. The town consists of a small collection of buildings that are dwarfed by the surrounding forests and rugged terrain.

The former company town of Leslie is a short distance north of Orient Hill. Former company-owned housing lines both sides of the road and is between the road and nearby railroad tracks (Plates B25–B26); historically, these dwellings were occupied by African-American workers and their families. A small commercial area is beyond the dwellings and retains the entities such as the Leslie post office (Plate B27). A side road branches from Route 20 to reach the former coal mine site atop an adjacent hill. A rail spur line accessed the site (Plate B28). Historically, white workers occupied the housing here (Plates B29–B30). The modest dwellings lined a small grid of narrow streets. Many of the historic-period workers' dwellings in Leslie still are extant, although most have been altered and updated over the years.

Situated west of West Virginia Route 20, the former company town of Bellburn features a fragmented layout similar to that of Leslie. The town is accessed via a side road that descends into a narrow creek bottom (Plates B31–B33). The access road passes by formerly company-owned housing that was set aside for mine supervisors, managers, and other higher ranking staff. The main line of the C&O Railroad passes through this section of town and then curves to follow Meadow Creek (Plates B34–B35). A spur line was constructed to connect the main line to the coal mine in Bellburn (Plate B36). The access road through the lower part of Bellburn branched, with the lower section leading to the coal mine and the upper section continuing up a nearby hillside to the area set aside for worker housing (Plate B37). The housing once owned by the coal company lines both sides of two streets that branch from the access road (Plates B37–B38). A comparison of topographic maps and the extant built environment indicates that a considerable percentage of the housing stock has been lost over the years. The dwellings that remain often feature updates such as replacement cladding and roofing materials, window sash, and entry doors, as well as small additions and enclosed porches. The coal mine in Bellburn is no longer active (Plates B40–B41). Much of the terrain is overgrown, and a handful of abandoned buildings are all that remain.

West Virginia Route 20 continues on a generally northerly route from Leslie up to the former company towns of Crichton and Quinwood. Between the towns, the roadway is lined by single-family dwellings that generally date from the mid- to the late twentieth century. Crichton is located west of Route 20 and is a compact town largely comprised of former company-owned housing. The single-story, side-gabled dwellings line both sides of the street and occupy small lots with narrow, deep lots (Plates B42–B43). As is the case in other former company towns within the APE, many of Crichton's dwellings have been modified and updated over the years (Plates B44–B46). Typical modifications include replacement siding and roofing materials, enclosed porches, replacement window sash and doors, additions, and rear decks and patios.

The former company town of Quinwood is the largest such community within the APE. Upon entering Quinwood, West Virginia Route 20 widens to four lanes where it intersects with County Route 2/Russellville Road and East Amick Street (Plates B47–B48). Commercial buildings are clustered at the intersection, including the historic-period Hill Top Restaurant (GB-1044). The Quinwood company store once stood at the intersection of East Amick Street and Bell Boulevard. This site is now occupied by the Quinwood Coal Miner's Memorial Park (Plate B49). One of the most imposing buildings in Quinwood is the historic Quinwood United Methodist Church (GB-1119), and yet it is dwarfed by the rugged terrain surrounding the town (Plate B50). The brick edifice dates from about 1930 and has been expanded and enlarged over the years. The original downtown area of Quinwood stood in the creek bottom along the north bank of Meadow Creek. The downtown has largely vanished, with only the former Quinwood Bank Building (GB-0046-0001) still extant, although it has been vacant for many years (Plate B51).

Former company-owned housing in Quinwood is located on a hilltop north of the original downtown area and along a grid of three streets (Plate B52). The side-gabled dwellings are quite similar to the former company housing in Crichton, and many of them feature the same types of updates and renovations. Beyond this housing area, residential dwellings are

generally modest in scale and design (Plate B53). Returning to West Virginia Route 20, sections east of the roadway are distinguished by housing that is stacked two to three buildings deep (Plates B54–B55) to take advantage of relatively flat terrain. North of Quinwood, the railroad alignment that historically was the lifeblood of industrial activity in the area is extant (Plate B56).

The former company town of Marfrance is located a short distance east of Quinwood. Dwellings line both sides of the main street through town, as well as a side street that leads back to the mine site, which now is abandoned. Typical former company houses are small front-gabled bungalow types that are perpendicular to the street and situated on small lots (Plate B57). New infill housing, such as manufactured housing and ranches, also is present in the community, particularly along the main road. A service alley extends between the rows of houses (Plate B58). Garages and sheds usually are placed alongside the alley. Taking into account the generally rolling character of the topography, most of the houses are constructed on raised basements (Plates B59–B60). The majority of historic-period housing display numerous alterations and updates such as replacement roofing, siding, windows, and doors, as well as small-scale additions or enclosed porches to create more living space. A number of the dwellings appear to be abandoned.

North of Marfrance along County Route 2-10, surface mining historically took place, especially along ridgelines. Commercial lumbering also continues in some areas. Evidence of such activities is apparent in some aspects of the landscape, such as the new growth and cleared hilltops along the road (Plates B61–B62). Roads in areas such as these often are privately maintained and are gated to prevent through traffic from entering private property (Plates B63–B64).

West of Quinwood and north of Crichton, County Route 2/Russellville Road extends along a ridgeline that offers views of the hills and valleys typical of northwestern Greenbrier County (Plates B65–B67). The road itself is a winding, two-lane strip of asphalt with narrow shoulders, a design typical of secondary county roads in the area. Although strip mining has occurred here historically, today much of the landscape in this area is forested. Due to the extent of mining and lumbering activity in the past, other types of development in the vicinity are very limited. A few single-family dwellings are widely dispersed along the roadway or are clustered at crossroads, such as at Buck Knob. A rural church often is situated within close proximity to these groupings as well. These conditions are apparent along the extent of County Route 2 as it leads further west and, ultimately, ends at the Fayette County line (Plates B68–B70).

5.0 RECOMMENDATIONS

Historical architectural resources often are eligible for inclusion in the NRHP under Criteria A, B, and/or C because they typically are best associated with historic events, people, and/or significant architectural style or architects. Listing under Criterion D is less usual for architectural resources but may be done for resources that can provide important historical data related to an important scientific research question. Such research questions commonly involve testing new or former hypotheses regarding important topics in the natural sciences and/or addressing important aspects of the cultural chronology of a region.

Historical architectural resources must be evaluated within the framework of a historic context; meaning the researcher must be able to address how the information contained within the resource is likely to affect current understanding of cultural patterns within a particular time period and region. Following federal guidelines for preservation planning (USDI 1983), the WVDCH (2005) recommends that a historic context be developed for the Undertaking's defined APE and any resources identified within it. The development of the historic context allows for the association of the site with current regional, temporal, and thematic research domains. This enables the researcher to evaluate a resource's research potential in reference to important questions that have been developed for the region, time period, and theme with which the resource is associated.

For any cultural resource to be considered significant and eligible for inclusion in the NRHP, it must retain integrity. The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. For a property to be considered eligible for the NRHP, it must retain one or more of these aspects. Historical architectural resources that have undergone extensive modifications over time may have lost the characteristics that convey integrity, thereby rendering the properties ineligible for inclusion in the NRHP.

Based on the archival research and fieldwork investigations that were conducted as part of this Undertaking, three categories of historical resources were identified within which to evaluate historic-period resources for NRHP eligibility. These are historic districts; resources that are individually eligible as part of a multiple property submission; and individual resources.

5.1 Historic Districts

According to the U. S. Department of the Interior, an historic district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (USDI 1997:15). A historic district generally is comprised of resources that are relatively equal in importance, such as a residential neighborhood. Districts derive their importance from being a unified entity, even when composed of a wide variety of resources.

The built environment, including the integrity of historic-period structure and the scale and quantity of architectural resources that are beyond the district's period of significance, must

convey a sense of historic time and place that reflects the district's period of significance. A historic district can be comprised of resources that lack individual distinction, so long as the grouping as a whole achieves significance within its historic context (USDI 1995:5). Furthermore, in rural areas, geographic and topographical features such as valleys, viewsheds, mountains, and bodies of water can be important elements that contribute to the district's cohesiveness and comprise important aspects of the visual and natural characteristics illustrative of its historical significance. Fields, roads, fences, bridges, and vegetation are crucial as well to defining the qualities of a rural historic district. The historical appearance and current condition of natural features, including vegetation, principal plant materials, open space, cultivated fields, and forests, are factors to be weighed in assessing the district's integrity.

Architectural resources within a historic district are classified as either contributing or non-contributing. A contributing building, site, structure, or object adds to the historical associations, architectural qualities, and/or archaeological values of a district for at least one of two reasons. First, the resource was extant during the district's period of significance, relates to the documented significance of the district, and has historic and architectural integrity sufficient to convey those associations. Second, the resource contributes to a historic district if it independently meets NRHP criteria for eligibility. A resource is categorized as non-contributing if it does not add to the historical associations, architectural qualities, or archaeological values of the district. A property may be noncontributing for several reasons. First, it was not extant during the district's period of significance or does not relate to the documented significance of the district. Second, the resource may have alterations, disturbances, additions, or other changes that have eroded its integrity. Third, the property does not independently meet NRHP criteria for eligibility (USDI 1997:16).

Within the Undertaking's defined APE, five former coal company towns were evaluated for NRHP eligibility as historic districts: Marfrance, Quinwood, Crichton, Leslie, and Bellburn. Although definitive information about Orient Hill's status as a former company town was not discovered, this community also was evaluated for NRHP eligibility as a historic district. The community of Leivasy predates coal mining activity in northwestern Greenbrier County, but its subsequent association with coal companies warranted consideration of the community as a historic district. Finally, one former company town within the APE, Duo, was determined eligible for the NRHP as a historic district as part of the 2006-2007 historical architectural investigations (O'Bannon and Sweeten 2007).

5.1.1 Marfrance

Founded in 1912, Marfrance reportedly was named for the two coal companies operating mines in the vicinity, the Margarett Coal Company and the Frances Coal Company. The town is located a short distance east of Quinwood in northwestern Greenbrier County. With regard to its layout, Marfrance has a generally linear pattern that is comprised of a principal street that runs on a northeast/southwest axis with houses lining both sides of the street (Figure A3). The community shares many characteristics typical of company towns, such as uniformly designed dwellings and small house lots. Former company-owned worker houses in Marfrance were designed as a stripped-down version of a front-gabled Craftsman Bungalow. The housing stock has a number of alterations, such as replacement sash, siding,

and doors, additions, and altered rooflines. The presence of numerous vacant lots and replacement dwellings, such as ranches and manufactured houses, indicate that the built environment in Marfrance has changed considerably over the years.

Marfrance is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historical events in the county's history under NRHP eligibility Criterion A. As distinguishable entities, company towns such as Marfrance can be significant under Criterion C for their association with community planning and development.

Although the community has a direct association with significant events and patterns of development in Greenbrier County, its built environment has lost much of its integrity. Many of the occupied dwellings in Marfrance feature extensive alterations and updates that have combined to obscure their original form and to remove or cover historical fabric. Some of the historic-period dwellings are vacant and have extensive physical deterioration. The presence of new infill construction, especially along the main street, erodes Marfrance's integrity as well. The community has lost integrity of setting, workmanship, design, materials, feeling, and association, and retains only integrity of location. Consequently, Marfrance lacks the integrity required to convey an historical sense of time and place. Marfrance is recommended not eligible for the NRHP as a historic district.

5.1.2 Quinwood

Quin Morton and Walter Wood founded Quinwood in 1919. As a company town, Quinwood had a fragmented layout, with the worker housing placed on a hilltop and transportation, community, and commercial buildings placed in the creek bottom (Figure A3). The formerly company-owned worker housing generally is comprised of one-story, side-gabled dwellings. Morton and Wood also owned the Imperial Smokeless Coal Company. They also opened the Quinwood No. 2 mine a short distance away in Nicholas County. Both mines were in the Sewell seam of coal. In 1947, Quinwood became one of the few coal camps to be incorporated. In 1968, Westmoreland Coal Company purchased mines from Imperial Smokeless Coal Company. At the time, these, along with purchases from Sprague & Sons, made Westmoreland the largest coal-only firm in the industry. During the 1980s, the assets formerly associated with Imperial were sold to the aforementioned Lady H Coal Company, which went bankrupt during the mid-1990s.

Quinwood is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historical events in the county's history under NRHP eligibility Criterion A. As distinguishable entities, company towns such as Quinwood can be significant under Criterion C for their association with community planning and development.

Although the community has a direct association with significant events and patterns of development in Greenbrier County, its built environment has lost much of its integrity. The historic downtown area has largely vanished, but for a single, abandoned building (Plate B51). The company-owned worker housing that is definitive of West Virginia's company towns is limited to a series of three streets on a hilltop (Plate B52). Most of the dwellings

have been altered with replacement siding, window sash, and doors, additions, enclosed porches, and similar modifications. The remainder of the built environment within Quinwood is not evocative of a company town (Plates B50, B53–B55). The community has lost integrity of setting, workmanship, design, materials, feeling, and association, and retains only integrity of location. Consequently, Quinwood lacks the integrity required to convey a historic sense of time and place. Quinwood is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.3 Crichton

Crichton dates from the early twentieth century, when both the Johnstown Coal & Coke Company and the Meadow Creek Coal Company operated mines in the vicinity. Johnstown's mine opened in 1921 and remained active for 30 years. Meadow Creek appears to have operated a mine here only during the 1920s. Crichton has a generally cruciform layout that is comprised of a principal street with radiating side streets (Figure A3). The community shares many characteristics typical of company towns, such as uniformly designed dwellings and small house lots. According to a local resident, the side-gabled dwellings were for mine workers and their families, while pyramidal-roofed dwellings housed managers. On the town's eastern outskirts are the Crichton United Methodist Church and a school originally known as Meadowbrook High School.

Crichton is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historic events in the county's history under NRHP eligibility Criterion A. As distinguishable entities, company towns such as Crichton can be significant under Criterion C for their association with community planning and development.

Although the community has a direct association with significant events and patterns of development in Greenbrier County, its built environment has lost much of its integrity. The company store and a communal bathhouse for miners are no longer extant. The schoolhouse has extensive alterations and additions that all but obscure the original building, while the community church has been modified with replacement siding, sash, and doors. While Crichton retains the dense built environment of a company town, with small, identical dwellings (Plate B42), the houses feature numerous updates, such as replacement siding, window sash, and doors, additions, enclosed porches, and similar modifications (Plates B43–B46). The community has lost integrity of setting, workmanship, design, materials, feeling, and association, and retains only integrity of location. Consequently, Crichton lacks the integrity required to convey a historic sense of time and place. Crichton is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.4 Leslie

Leslie was named for Leslie Nelson, owner of the Nelson Fuel Company. John B. Laing, a businessman based in Lewisburg, played a major role at the Nelson Fuel Company and focused his efforts on extracting coal resources in western Greenbrier County. Laing also was instrumental in organizing the Greenbrier & Eastern Railroad in 1919 and served as its president for a time. Leslie is distinguished by its historical housing pattern, which is intact to some extent today. The town consisted of two parts, segregated by race. African-American

workers occupied housing along the Meadow Creek bottom, which was paralleled by railroad tracks and, later, by West Virginia Route 20 (Figure A3). A segregated church and school were provided as well. White workers occupied housing on a nearby hilltop, closer to the mine. As a result, Leslie's layout is an example of a fragmented company town plan. The formerly company-owned worker housing consists of a stripped-down version of a front-gabled Craftsman Bungalow.

Leslie is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historic events in the county's history under NRHP eligibility Criterion A. As distinguishable entities, company towns such as Leslie can be significant under Criterion C for their association with community planning and development.

Although the community has a direct association with significant events and patterns of development in Greenbrier County, its built environment has lost much of its integrity. The company store is not extant and other community buildings in the town, such as the post office, have numerous alterations (Plate B27). The schoolhouse for African-American students is now a dwelling, but the church appears to retain an active congregation. The dwellings feature typical updates, such as replacement siding, roofing, window sash, and doors (Plates B25–B26, B28–B30). Additions and enclosed porches to create more living space also are common. As a result, the community has lost integrity of setting, workmanship, design, materials, feeling, and association, and retains only integrity of location. Consequently, Leslie lacks the integrity required to convey a historic sense of time and place. Leslie is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.5 Bellburn

John Bell and H. H. Blackburn founded Bellburn in 1918. It is located a short distance west of Leslie (Figure A3). The Greenbrier Smokeless Coal Company operated a mine here during the 1920s and 1930s. Worker housing in the community is representative of the pyramid cottage type. The company also ran the Crichton No. 2, Greenbrier, and Laurel Creek mines into the 1940s. Mining continued to take place in the vicinity until fairly recent years, when the A. T. Massey firm operated a mine here as the White Buck Coal Company. In Bellburn, the managers' housing was located at the bottom of a hill, just off present-day West Virginia Route 20. Workers' housing was placed on an adjacent hilltop, giving the town a fragmented company town layout. A church, school, and company store were also in the town, and the church is still extant today.

Bellburn is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historic events in the county's history under NRHP eligibility Criterion A. As distinguishable entities, company towns such as Bellburn can be significant under Criterion C for their association with community planning and development.

Although the community has a direct association with significant events and patterns of development in Greenbrier County, its built environment has lost much of its integrity. A company store is not extant, although the community church appears to retain an active

congregation. Many of the occupied dwellings in Bellburn feature extensive alterations and updates that have combined to obscure their original form and to remove or cover historical fabric (Plates B32, B35). Some of the historic-period dwellings are vacant and physically deteriorated. Numerous vacant lots among the formerly company-owned worker housing in Bellburn testify to the loss of considerable building stock (Plates B38–B39). The community has lost integrity of setting, workmanship, design, materials, feeling, and association, and retains only integrity of location. Consequently, Marfrance lacks the integrity required to convey a historic sense of time and place. Marfrance is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.6 Orient Hill

Very little information was discovered about Orient Hill, including whether it was historically associated with a coal mining company. One road in the town is named Coalfield Drive and another is named Ball Diamond Road, both of which seem indicative of a coal company association. It is located along West Virginia Route 20, which became a principal highway through western Greenbrier County during the 1920s, and is a short distance southeast of Bellburn (Figure A3). Situated on moderately hilly terrain, Orient Hill is laid out in an irregular pattern, with side streets winding away from Route 20. The housing stock generally dates from the early to mid-twentieth century. There are two churches in the community and a cemetery is on the west side of town. The earliest grave identified within the cemetery dates from 1934.

It is unclear if Orient Hill is historically associated with coal mining and railroad transportation in northwestern Greenbrier County, both of which are significant historic events in the county's history under NRHP eligibility Criterion A. The community also does not appear to be a distinguishable entity, such as a company town, that would be significant under Criterion C for their association with community planning and development. The built environment does not convey an historic sense of time and place. Consequently, Orient Hill is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.7 Leivasy

Leivasy is located along West Virginia Route 20, which is a principal highway through the area (Figure A3). According to a highway marker within the town, Leivasy originally was known as Meadowvale. Founded in October 1879, it included a post office and general store. Valentine Leivasy served as the first post master and store merchant. Surnames of those who settled in the area included Odell, McClung, Davis, Journelle, Callison, Bennet, McCutcheon, Nicholas, Pittsenberger, White, and Williams.

Coal mining was the largest employer in the area through much of the twentieth century. The Westmoreland Coal Company, Mill Coal Company, and Oak Ridge Coal Company still operated mines here during the 1970s, and the Leivasy Mining Corporation was active here during the early 1990s. The Leivasy Mining Corporation was a subsidiary of the Lady H Coal Company, Incorporated. The Lady H and all its subsidiaries declared bankruptcy during the mid-1990s. The Green Valley Coal Company continues to operate mines in the area and has a new, two-story office building in the center of Leivasy (Leivasy Centennial Committee 1979:6; WVOMHST 2004).

Leivasy is historically associated with early settlement in northwestern Greenbrier County, as well as with coal mining and railroad transportation. All of these are significant historic events in the county's history under NRHP eligibility Criterion A. Leivasy does not appear to have been a company town in the same mold as other communities in the vicinity. The housing stock is diverse, and does not display the conformity and continuity of design that characterize company towns. It is not known if a company store or other company-owned community buildings were provided for the town's residents. With regard to its integrity as a distinguishable entity, Leivasy has integrity of location and setting. Integrity of workmanship, design, and materials are compromised by modifications to individual buildings, such as replacement siding, roofing, window sash, and doors, as well as alterations to building footprints, form, and massing. Such modifications also erode integrity of feeling and association. Consequently, the community of Leivasy is recommended not eligible for inclusion in the NRHP as a historic district.

5.1.8 Duo

The former coal mining town of Duo is located in northwestern Greenbrier County on Shellcamp Ridge near the headwaters of Big Clear Creek (Figure A3). Duo was built by the Raine Lumber and Coal Company during the early 1930s. Like many coal company towns, Duo had a company store, post office, church, school, boarding house, and worker housing. A rail line connected the community to other coal camps in the area. The company's coal production peaked at 163,334 tons in 1947 and gradually decreased tonnage until Raine Coal Company closed the mines in 1958. However, in late 1958, Claude Gadde and former Raine employees formed the Duo Coals, Inc., and continued to mine until 1967 when the mines permanently closed.

When identified in 2006–2007, the built environment of Duo remained remarkably intact, with few alterations to the housing stock. Size, scale, massing, form, and materials were consistent throughout the community. Houses located on the west side of the westernmost street in the community were built for coal company managers, while the remaining dwellings were constructed for workers. Overall, the architectural integrity and cohesion of the built environment in Duo was quite good. No modern intrusions existed within the community. A few resources have been lost over time. These include the train tracks that ran through Duo, which were removed in the early 1950s when the local road network was improved. The company store building was lost to a fire, but the foundation walls are extant. The community's schoolhouse also has been demolished, with the playground now used as a camp meeting ground by local residents. The community church still was occupied by a small congregation.

As a historic district, Duo was recommended eligible for inclusion in the NRHP under Criterion A, for association with significant historical patterns of development. The period of significance was recommended to begin with the founding of the community during the 1930s and extend through 1957. The WVDCH concurred with this recommendation. As one of the only extant coal mining towns in southeastern West Virginia, the town was found to be representative of the area's coal heritage. Its organization, buildings, and patterns of land use are classic examples of a company town. The community also has a direct association with

the Raine Lumber and Coal Company, an industrial enterprise of historic significance in southern West Virginia.

Since 2006–2007, some of the buildings in Duo have been removed, altered, or abandoned. HPI forms for these properties were updated accordingly and are in Appendix G. Properties that had not seen any major changes since they were first identified did not receive updated HPI forms. Archival investigations provided no evidence to suggest that the Duo Historic District is eligible for the NRHP under Criterion B. The loss of some key buildings, such as the company store and schoolhouse, as well as several dwellings, has eroded the architectural integrity to a degree that the district is not eligible for the NRHP under Criterion C. Archaeological investigations to ascertain NRHP eligibility under Criterion D are not within the purview of Gray & Pape’s historical architectural investigation.

Despite the loss of some buildings, Gray & Pape recommends that the Duo Historic District is eligible for the NRHP under Criterion A based upon eligibility criteria specified in 36 CFR 60.4 (USGPO 2010b). The community’s integrity and historic sense of time and place conveys its association with coal mining in Greenbrier County during the early to mid-twentieth century. As one of the few extant coal mining towns in southeastern West Virginia, the town is representative of the area’s coal heritage. Its organization, buildings, and patterns of land use are classic examples of a company town. The community also has a direct association with the Raine Lumber and Coal Company, an industrial enterprise of historic significance in southern West Virginia

As previously noted, Duo is within the 1-mile buffer for the acoustical study that was conducted by Acentech (2011). During construction of the WTGs, the community is expected to have temporary noise effects caused by typical construction activities. Over the long term, day-to-day operation of the Beech Ridge wind energy facility is not anticipated to exceed existing ambient sound levels and, thus, will not have an audible effect on this NRHP-eligible resource (Acentech 2011:5-7).

5.2 Multiple Property Submissions

Resources that are recommended eligible as part of a multiple property submission are thematically related in one or more ways. Each resource must be individually significant and eligible for the NRHP in its own right. Grouping such properties in a thematic context, however, contributes to greater understanding of the historic context of the resource type and can provide an organizing framework for later identification of additional properties that also may be eligible for inclusion in the NRHP. During the 2006-2007 historical architectural investigations, three historically significant resource types were identified in the area’s rural churches, cemeteries and schools. For resources within the Undertaking’s defined APE, one church was identified as belonging in the rural churches category, and its associated cemetery belongs in the rural cemeteries category. Both are discussed in greater detail below. No resources associated with rural schools were identified.

5.2.1 Rural Churches

The rural church resource type proliferated in Greenbrier and Nicholas counties during the nineteenth and early twentieth century, as many communities in the area erected small churches to meet local residents' needs. Such buildings often functioned as a nexus of social and community activity, particularly prior to development of modern transportation networks. Character-defining features of this resource type include the rectangular, one-room plan; white-painted clapboard siding; front-gabled roof; and symmetrical fenestration, with the entry on the front gable end wall, three window openings on each longitudinal wall, and a projecting bay centered on the rear gable end wall. Vernacular Gothic Revival motifs are common as well, including pointed-arch windows with multiple-light sash and an ocular window above the front entry. Built by local carpenters, these edifices are a tangible, intact example of vernacular building traditions from the mid-nineteenth through early twentieth century.

An excellent example of a rural vernacular church building, Mt. Urim Baptist Church (NI-0026-0192) is located east of County Route 17 in southeastern Nicholas County (Figure A1; Plates 1–2). Constructed in ca. 1885, the one-story, front-gabled church is built on a concrete block foundation and is clad with painted white clapboards. The roof is covered with standing seam metal. A pyramid-roofed, square cupola is located at the west end of the roof, and a concrete block flue rises from the center of the ridgeline. Fronted by a long flight of wide concrete steps, double wooden doors are centered on the primary façade. A centered, gable-roofed vestibule clad with clapboard siding projects from the entry. The fenestration pattern is symmetrical with three windows evenly spaced along the north and south walls, each with a single-hung six-over-six wooden sash.

The rural cemetery (Field Number 175) associated with Mt. Urim Baptist Church (NI-0026-0192) is located on a steep hillside a short distance south of the church and east of County Route 17 in southeastern Nicholas County (Figure A1; Plates 3–4). Woodlands extend along the east and south sides of the cemetery. Many of the graves are marked with granite, limestone, and marble tombstones. Erosion appears to have caused some stones to tip over or become partially buried; in such cases small, white wooden crosses have been placed alongside the graves. Approximately forty marked graves are extant, dating from the late nineteenth century to the present. Among the family names on the markers are Hellam, Dietz, and Odell.

Properties owned by religious institutions ordinarily are not considered eligible for inclusion in the NRHP. Such properties qualify, however, if they fall within Criteria Consideration A, which specifies that a religious property must derive its primary significance from architectural or artistic distinction or historical importance (USDI 1995:2). Mt. Urim Baptist Church (NI-0026-0192) meets this standard as it is recommended eligible for its association with significant trends in the historical development of Greenbrier and Nicholas counties and for its architectural workmanship and design. The Mt. Urim Baptist Church and associated cemetery retain all seven aspects of integrity required for NRHP eligibility. The location, design, setting, feeling, and association are intact. Few alterations have been made, thereby preserving the materials and workmanship. As a result, the resource is recommended



Plate 1. Mt. Urim Baptist Church (NI-0026-0192), facing east.



Plate 2. Mt. Urim Baptist Church (NI-0026-0192), facing southeast.

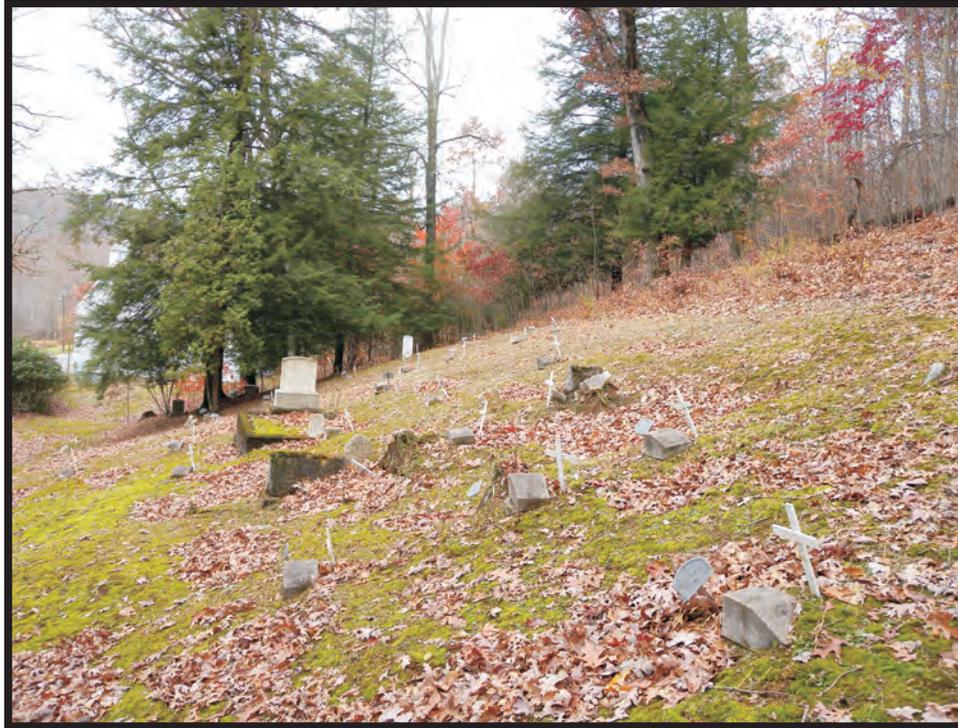


Plate 3. Mt. Urim Baptist Church cemetery (Field Number 175), facing north/northeast.



Plate 4. Mt. Urim Baptist Church cemetery (Field Number 175), facing south/southeast.

individually eligible for inclusion in the NRHP under Criteria A and C, and according to the requirements of Criteria Considerations A, C, and D. The resource further can be part of the Rural Churches Multiple Property Submission (MPS) identified during the 2006-2007 historical architectural investigations for the Beech Ridge Wind Energy Facility (O'Bannon and Sweeten 2007). The HPI form for this resource is included in Appendix G of this report.

As previously noted, a 1-mile buffer for the acoustical study was established by Acentech (2011). This buffer encompasses the entirety of the Beech Ridge facility, including the existing 67 WTGs and the 47 new WTG locations currently under evaluation (with 33 WTGs proposed for construction). The previously identified Olive Baptist Church (GB-0038-0107B) is located a short distance beyond the east edge of this buffer. This resource was recommended eligible for the NRHP within the Rural Churches MPS during the 2006-2007 investigations (O'Bannon and Sweeten 2007). No major changes have taken place at the property since that time, so an updated HPI form was not prepared. During construction of the WTGs, the church may experience temporary noise effects caused by typical construction activities. Over the long term, day-to-day operation of the Beech Ridge wind energy facility is not anticipated to exceed existing ambient sound levels at the resource and, thus, will not have an audible effect on this NRHP-eligible resource (Acentech 2011:5-7).

5.2.2 Rural Cemeteries

Cemeteries and gravesites typically are not considered for inclusion in the NRHP unless they meet special requirements. To qualify for listing under Criterion A, B, or C, a cemetery or grave must meet the eligibility requirement for at least one of those criteria as well as those of Criteria Considerations C or D, which relate specifically to graves and cemeteries. Criteria Consideration C provides that a birthplace or grave of a historical figure of outstanding importance may be eligible for inclusion in the NRHP if there is no other appropriate site or building directly associated with the individual's productive life. Criteria Consideration D states that the cemetery must derive its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events. Archival research and fieldwork suggests that the rural cemeteries in the Undertaking's defined APE are associated with early settlement in Greenbrier and Nicholas counties ranging from the early through the mid-nineteenth century. Later features are present as well, particularly from the late nineteenth through early twentieth century, which may shed additional light on historical development patterns in the county at that time.

As previously noted, a 1-mile buffer for the acoustical study was established by Acentech (2011). This buffer encompasses the entirety of the Beech Ridge facility, including the existing 67 WTGs and the 47 new WTG locations currently under evaluation (with 33 WTGs proposed for construction). A previously identified cemetery (Field Number 00046) is located along Panther Creek Road a short distance beyond the east edge of this buffer. This resource was recommended eligible for the NRHP within the Rural Cemeteries MPS in 2006-2007 (O'Bannon and Sweeten 2007). No major changes have taken place at the property since that time, so an updated HPI form was not prepared. During construction of the WTGs, the cemetery may experience temporary noise effects caused by typical construction activities. Over the long term, day-to-day operation of the Beech Ridge wind

energy facility is not anticipated to exceed existing ambient sound levels at the resource and, thus, will not have an audible effect on this NRHP-eligible resource (Acentech 2011:5-7).

5.3 Individual Resources

In order to be individually eligible for the NRHP, a resource must have historic significance and integrity. Significance may be under one or more of the four criteria for NRHP eligibility. These are Criterion A, association with historic events or activities; Criterion B, association with important persons; Criterion C, distinctive design or physical characteristics, and Criterion D, potential to provide important information about prehistory or history. A resource that is individually eligible for the NRHP also must possess at least one of the seven criteria for integrity, which are location, design, setting, materials, workmanship, feeling, and association (USDI 1991:1). Sites, buildings, structures, and objects may qualify as individually eligible for the NRHP. For the Undertaking, Gray & Pape's field investigations identified no resources that are recommended as individually eligible, other than the Mt. Urim Baptist Church (NI-0026-0192) and associated cemetery (Field Number 175) described in section 5.2.1.

As previously noted, a 1-mile buffer for the acoustical study was established by Acentech (2011). This buffer encompasses the entirety of the Beech Ridge facility, including the existing 67 WTGs and the 47 new WTG locations currently under evaluation (with 33 WTGs proposed for construction). A previously identified dwelling (GB-0038-0099) is located along Upper Spring Creek Road a short distance beyond the east edge of this buffer. This resource was recommended individually eligible for the NRHP under Criteria A and C during the 2006-2007 investigations for the Beech Ridge Wind Energy Facility (O'Bannon and Sweeten 2007). No major changes have taken place at the property since that time, so an updated HPI form was not prepared. During construction of the WTGs, the dwelling may experience temporary noise effects caused by typical construction activities. Over the long term, day-to-day operation of the Beech Ridge wind energy facility is not anticipated to exceed existing ambient sound levels at the resource and, thus, will not have an audible effect on this NRHP-eligible resource (Acentech 2011:5-7).

5.4 Rural and Historic Landscapes

In addition to documenting individual historic architectural resources and historic districts, Gray & Pape was tasked with identifying potentially significant rural and/or historic landscapes within the Undertaking's defined APE. With National Register Bulletin 30, *Guidelines for Evaluating and Documenting Rural Historic Landscapes*, the U.S. Department of the Interior (USDI) provides guidelines for identifying and assessing the historical significance of rural landscapes (McClelland et al. 1999). The Department of Interior further prepared a guide for inventorying cultural landscapes (Goetcheus 2001). These two reference works were used to assess the landscapes within the APE and to determine if any potentially significant cultural landscapes exist therein.

Rural and historic landscapes often are difficult to quantify as, by their very nature, change is perhaps the only constant that is evident. Such is the case within the Undertaking's defined APE. To be eligible for the NRHP, however, a rural or historic landscape must be associated

with a historic event, activity, or person, as recognized by the historic contexts for the area, or it must exhibit other cultural or aesthetic values. Additionally, the landscape's characteristic must reflect the period of time in which the important events took place (McClelland et al. 1999:13). This is achieved through the seven aspects of integrity: location, setting, design, workmanship, materials, feeling, and association. The landscapes of northwestern Greenbrier and southeastern Nicholas counties do not meet these requirements.

The landscape within the APE generally is rugged and quite rural. There are a handful of crossroads communities, such as Lile and Leivasy, which date from the late nineteenth century. Much of the development in the area is related to the lumber and coal mining industries and the arrival of railroad transportation. These have combined to rework the natural landscape repeatedly over the course of more than a century. Dense forests have been cleared and new growth permitted to return, only to be harvested again in a cycle that continues today. Surface and strip mining removed many hilltops and left extensive physical alterations that are still visible today. Ongoing land reclamation efforts seek to return the landscape to a more natural condition. Coal company towns proliferated along two principal transportation corridors in northeastern Greenbrier County. As coal reserves were exhausted, some of the towns were abandoned and their buildings razed, such as Clearco and Anjean. Other former company towns survive today, albeit in very different form than when coal mining was the principal industry.

The overarching theme of the landscapes within northwestern Greenbrier and southeastern Nicholas counties is one of natural resource extraction. Although the activities associated with extraction are intensive, they also can be transitory. For example, reclaimed coal mining sites bear very little resemblance to a historical mine site, when tipples, loadouts, processing plants, rail spur lines, and other mining infrastructure are in place. The landscape and built environment within the Undertaking's defined APE retain many aspects that are related to timbering, coal mining, and rail transportation, such as former company towns, abandoned mine sites, and railroad alignments. As described in Section 4.2, however, the built environment retains little integrity of design, workmanship, materials, feeling, and association. Given these factors, the landscapes within the APE are evaluated as lacking the integrity necessary to convey a historic sense of time and place. No rural or historic landscapes are recommended eligible for inclusion in the NRHP.

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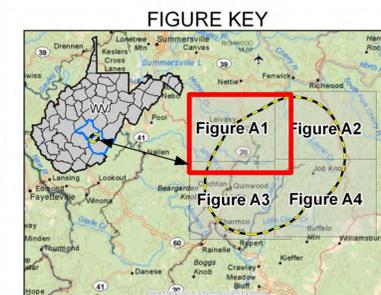
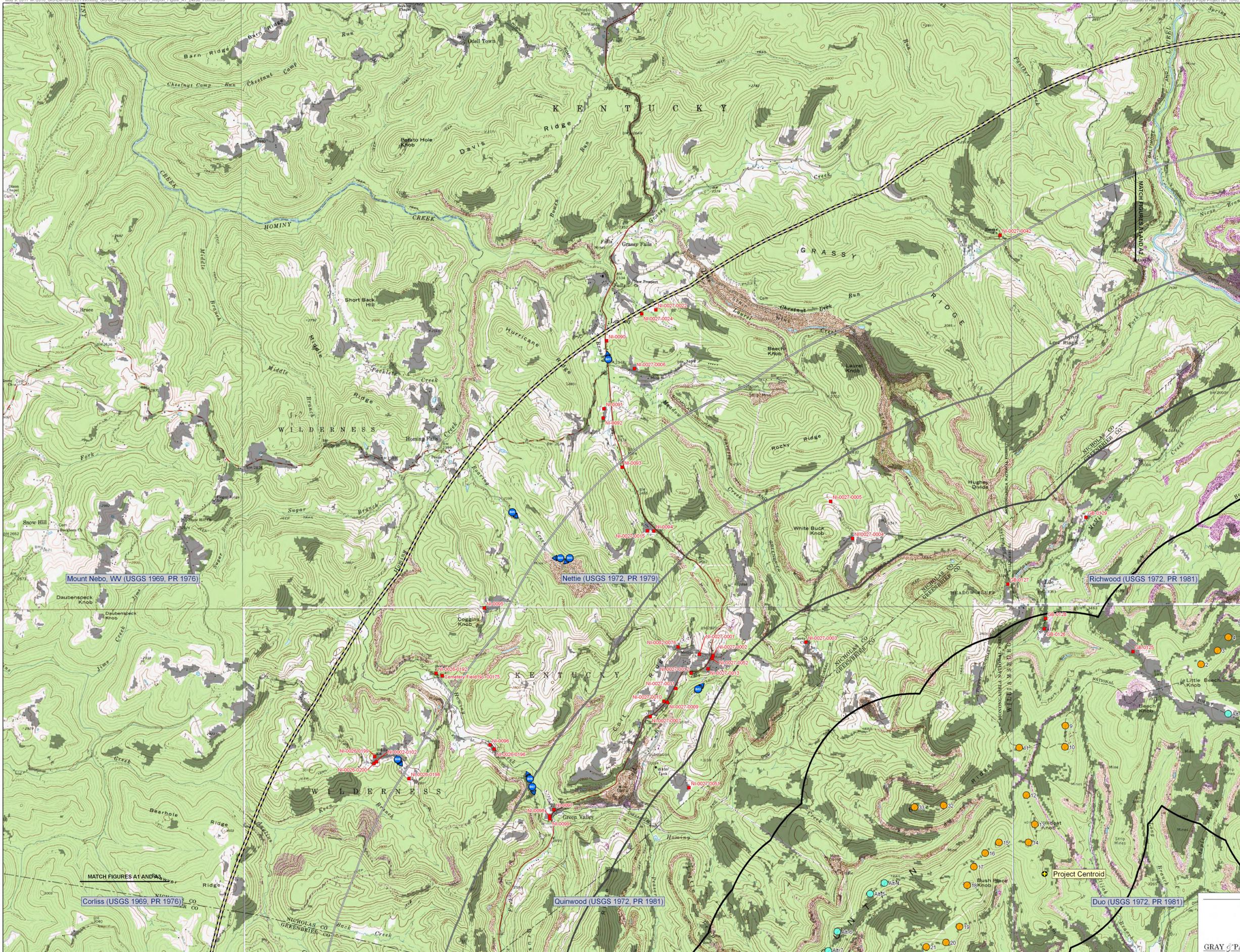
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APPENDIX A

**LOCATION MAPS FOR ARCHITECTURAL RESOURCES
DOCUMENTED WITHIN THE AREA OF POTENTIAL EFFECTS**



LEGEND

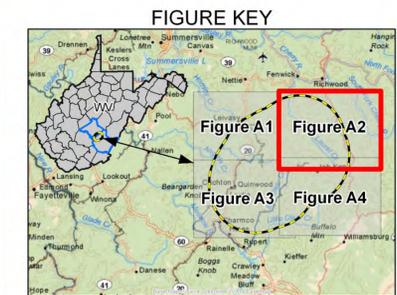
- 5-mile Project Area Buffer (1-mile Increments)
- Study Area (5-Mile Radius)
- Study Area Centroid
- Recommended NRHP Eligible Resource
- Photo Location and Orientation
- Turbines**
- Turbines - Existing
- Proposed Turbine
- Proposed Turbine (Alternate Site)
- Vegetated Viewshed**
- One or more Turbines Visible

USGS 7.5' Series Quadrangle Reference

600 0 600
Meters

2000 0 2000
Feet

Location Map for Historic-Period Resources within the Area of Potential Effects



LEGEND

- 5-mile Project Area Buffer (1-mile Increments)
- Study Area (5-Mile Radius)
- Study Area Centroid
- Recommended NRHP Eligible Resource
- Turbines**
 - Turbines - Existing
 - Proposed Turbine
 - Proposed Turbine (Alternate Site)
- Vegetated Viewshed**
 - One or more Turbines Visible

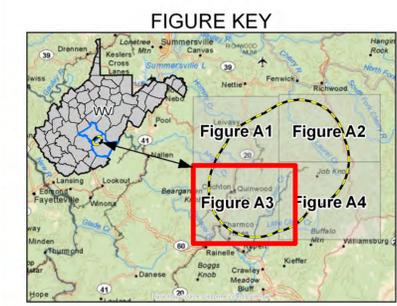
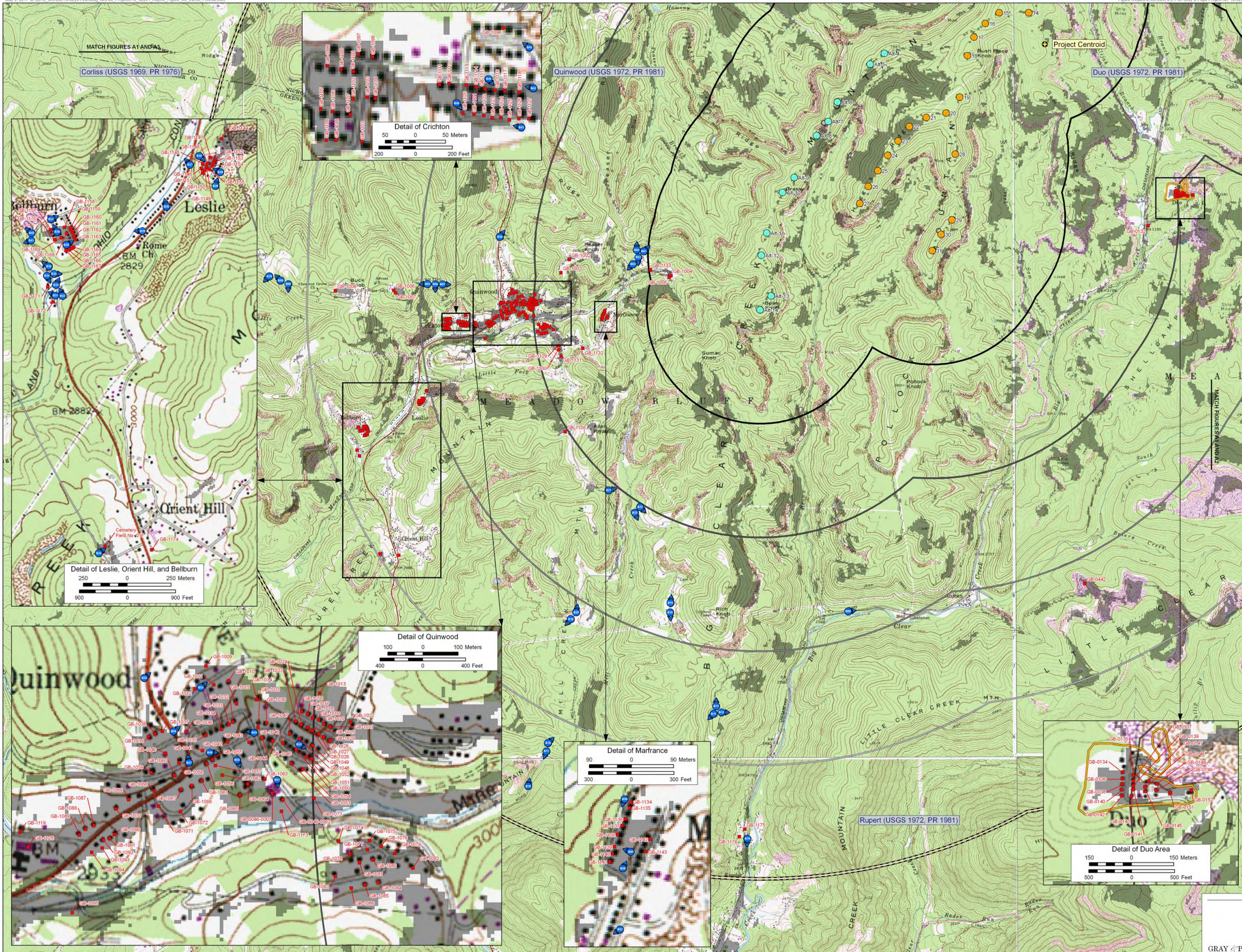
USGS 7.5' Series Quadrangle Reference

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Meters

2000 0 2000
Feet

North Arrow

Location Map for Historic-Period Resources within the Area of Potential Effects



LEGEND

- 5-mile Project Area Buffer (1-mile Increments)
- Study Area (5-Mile Radius)
- Proposed Historic District
- Study Area Centroid
- Recommended NHRP Eligible Resource
- Photo Location and Orientation

Turbines

- Turbines - Existing
- Proposed Turbine
- Proposed Turbine (Alternate Site)

Vegetated Viewshed

- One or more Turbines Visible

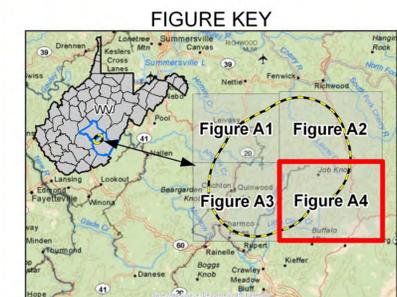
[USGS 7.5' Series Quadrangle Reference](#)

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2000 0 2000
Feet

N
E
S
W

Location Map for Historic-Period Resources within the Area of Potential Effects



LEGEND

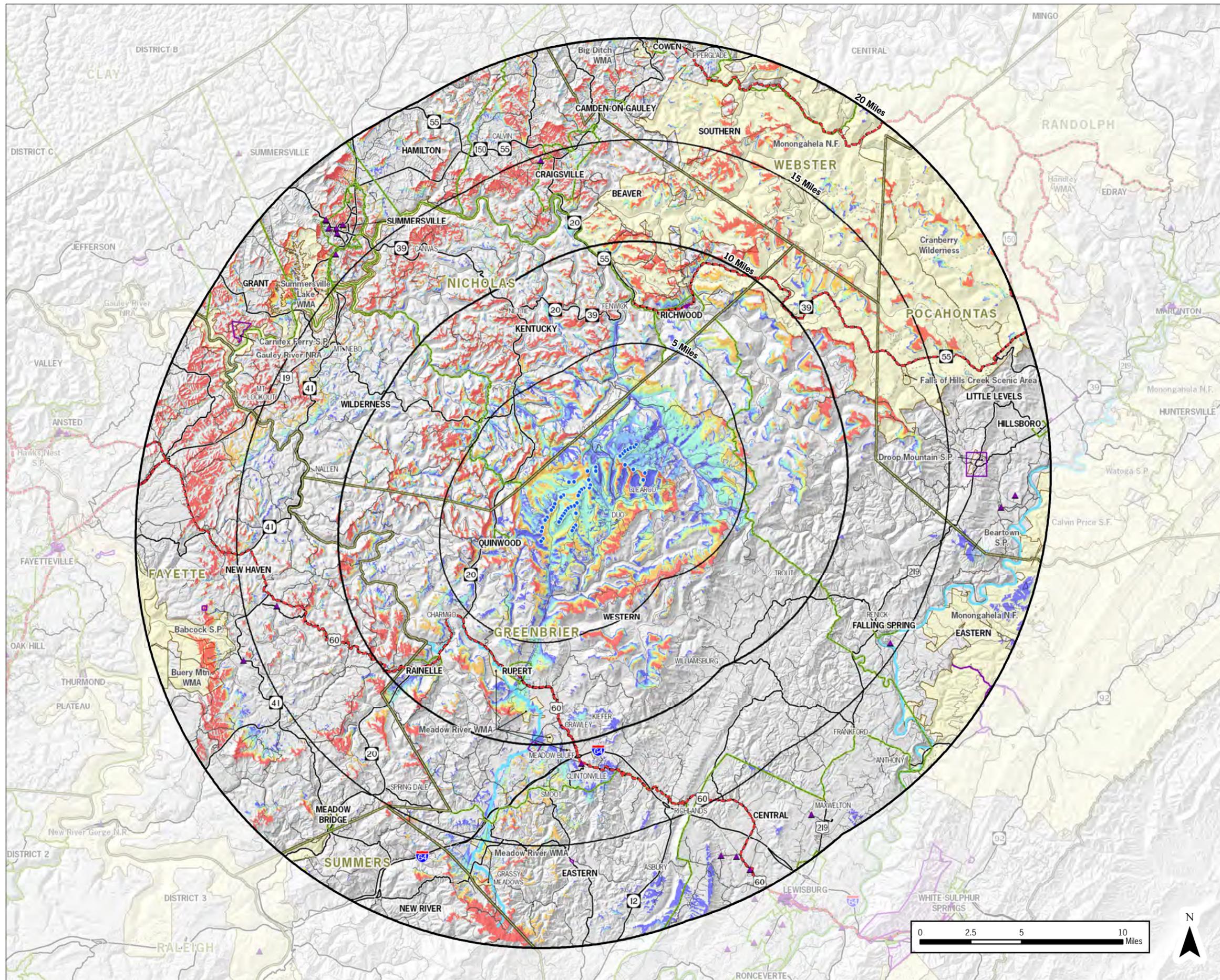
- 5-mile Project Area Buffer (1-mile Increments)
- Study Area (5-Mile Radius)
- Proposed Historic District
- Study Area Centroid
- Recommended NRHP Eligible Resource
- Turbines**
 - Turbines - Existing
 - Proposed Turbine
 - Proposed Turbine (Alternate Site)
- Vegetated Viewshed**
 - One or more Turbines Visible

USGS 7.5' Series Quadrangle Reference

600 0 600
Meters

2000 0 2000
Feet

Location Map for Historic-Period Resources within the Area of Potential Effects



Beech Ridge Energy Phase II Expansion

Figure A5

Topographic Viewshed

December 2010

Key

Number of Turbines Visible

- 1 - 5
- 6 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 47

- Proposed Wind Turbine (497' ht. to Blade Tip)
- ▲ National Register of Historic Places
- ▨ Historic Districts
- Scenic Byways
- Federal Highways, State Routes
- County Routes
- Local Roads
- Major Rivers
- ▭ Municipal Boundaries
- ▭ County Boundaries
- ▭ Scenic and Recreational Resources

PROJECT # 2010-044.10M
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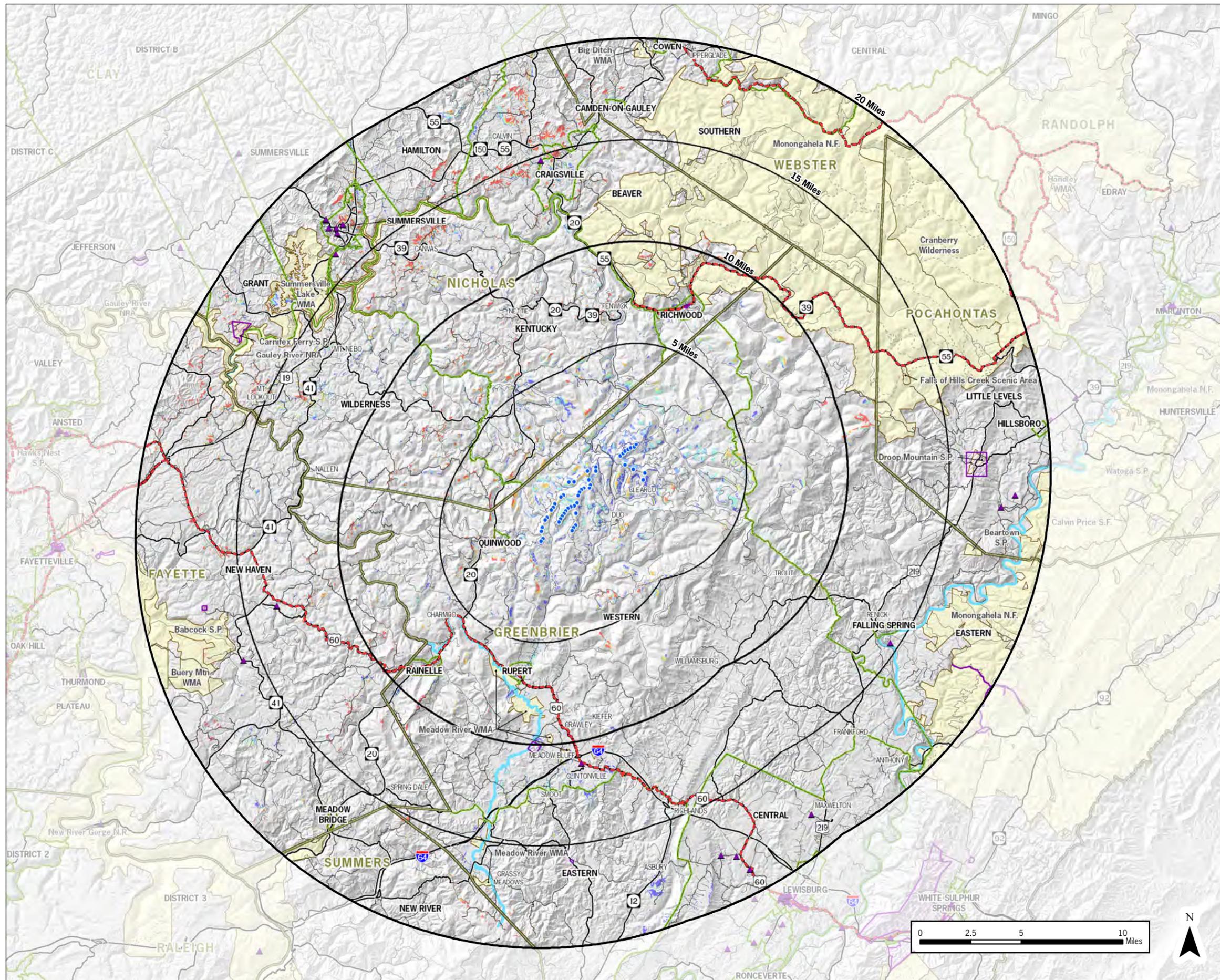
This map is computer generated using data acquired by Saratoga Associates from various sources and is intended only for reference, conceptual planning and presentation purposes. This map is not intended for and should not be used to establish boundaries, property lines, location of objects or to provide any other information typically needed for construction or any other purpose when engineered plans or land surveys are required.

File Location:
B:\GIS\2010\10044\Maps\Figure1_Proposed_TopographyOnly_Viewshed.mxd

SARATOGA ASSOCIATES

Landscape Architects, Architects,
Engineers, and Planners, P.C.
New York City > Saratoga Springs > Syracuse

Beech Ridge Energy



Beech Ridge Energy Phase II Expansion

Figure A6

Vegetated Viewshed*

* - Assumes a uniform tree height of 40' (12.192m) in forested areas.

December 2010

Key

Number of Turbines Visible

- 1 - 5
- 6 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 47

- Proposed Wind Turbine (497' ht. to Blade Tip)
- ▲ National Register of Historic Places
- ▨ Historic Districts
- Scenic Byways
- Federal Highways, State Routes
- County Routes
- Local Roads
- Major Rivers
- ▭ Municipal Boundaries
- ▭ County Boundaries
- ▭ Scenic and Recreational Resources

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File Location:
B:\GIS\2010\10044\Maps\Figure2_Proposed_Veg-Adjusted_Viewshed.mxd

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Engineers, and Planners, P.C.
New York City > Saratoga Springs > Syracuse

Beech Ridge Energy

APPENDIX B
REPRESENTATIVE LANDSCAPE PHOTOS



Plate B1. Landscape along West Virginia Route 20 just south of Leivasy, facing north.

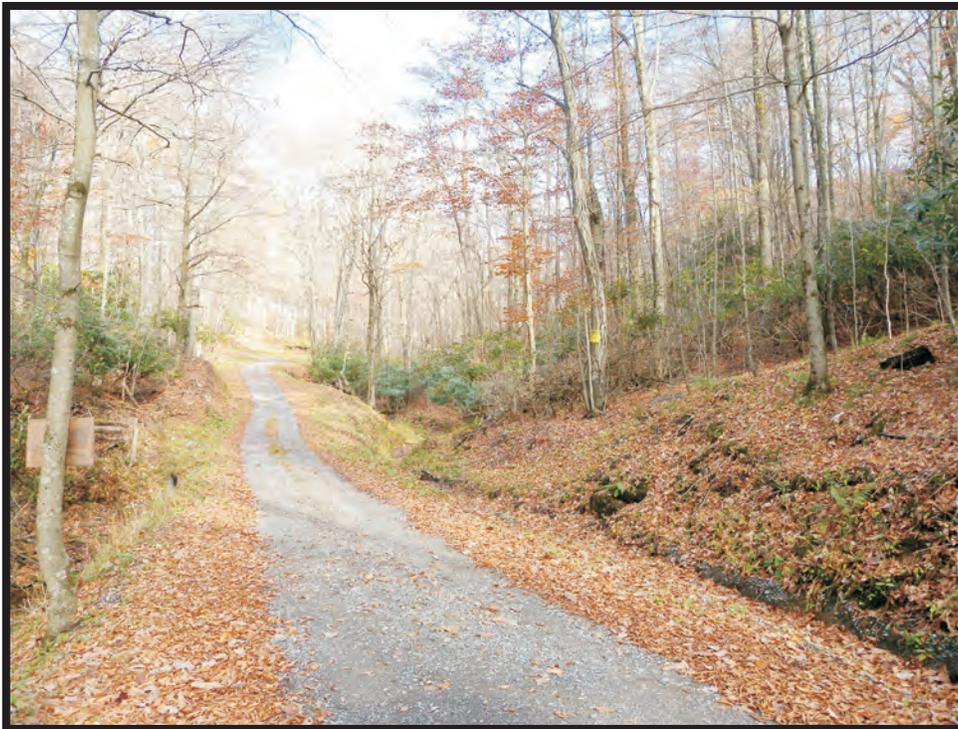


Plate B2. Landscape along Pittsenberger Road, facing northeast.

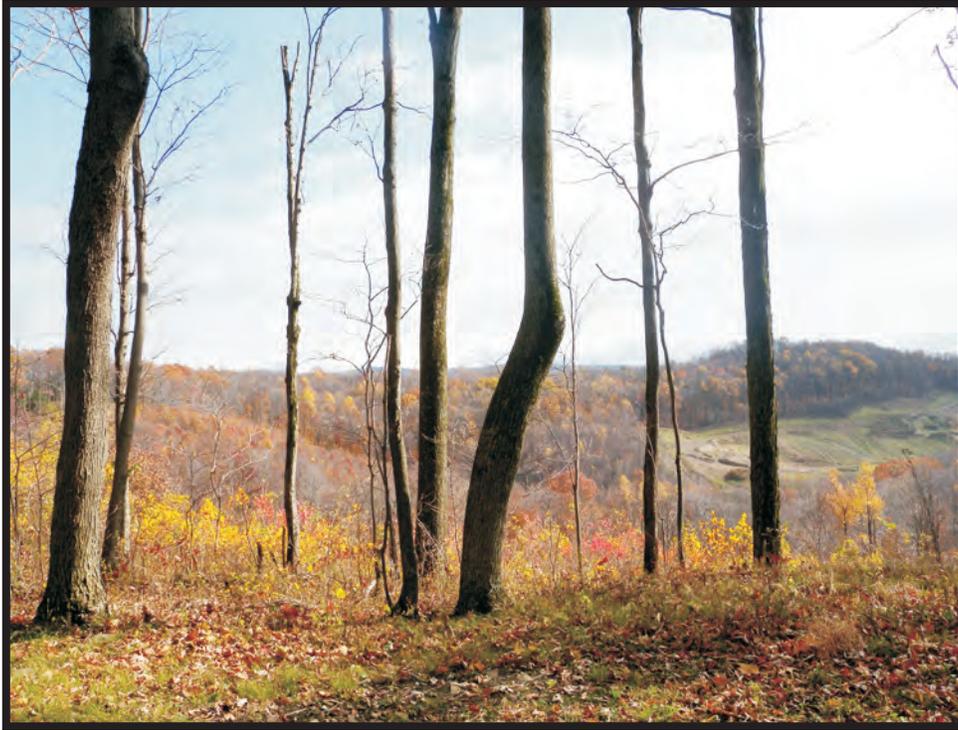


Plate B3. Strip mine southwest of County Route 13-7, facing southwest.



Plate B4. Strip mine southwest of County Route 13-7, facing west.

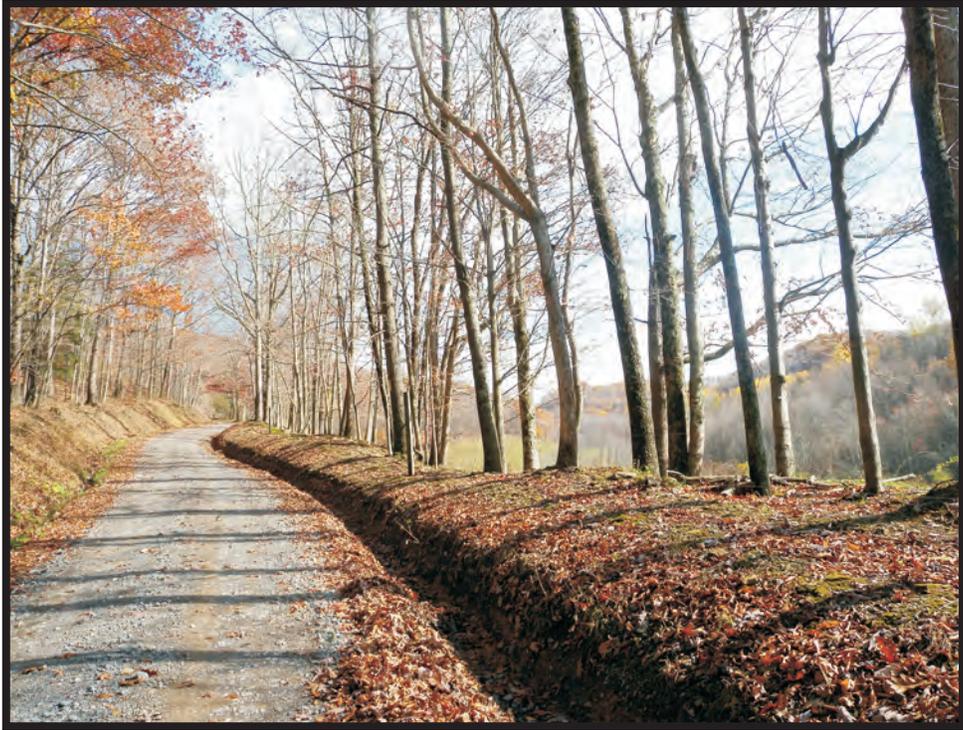


Plate B5. Landscape along County Route 13-7, facing southeast.

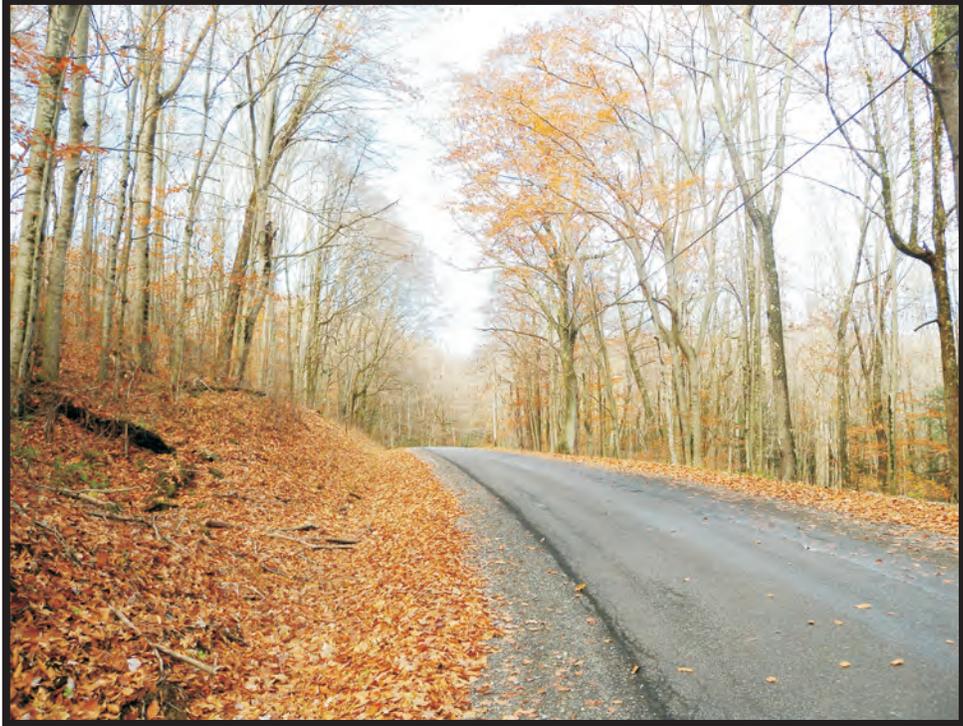


Plate B6. Landscape along County Route 17, facing northwest.



Plate B7. Landscape along County Route 17, facing southeast.



Plate B8. Landscape along County Route 17/ Old Nicholas Road, facing southeast.



Plate B9. Landscape along County Route 1 west of Anjean, facing east.



Plate B10. Landscape along County Route 1 near Kessler, facing south.



Plate B11. Landscape along County Route 6, facing south/southwest.



Plate B12. Landscape along County Route 6, facing east.

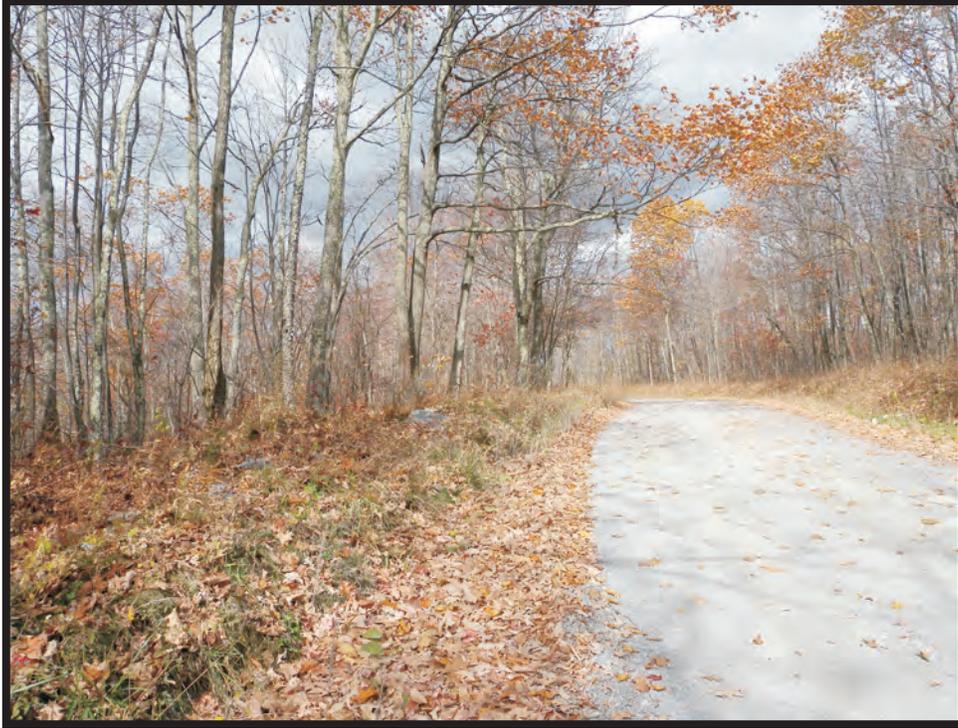


Plate B13. Landscape along County Route 6, facing north.



Plate B14. Landscape along County Route 6, facing south.



Plate B15. Landscape along County Route 6, facing north.

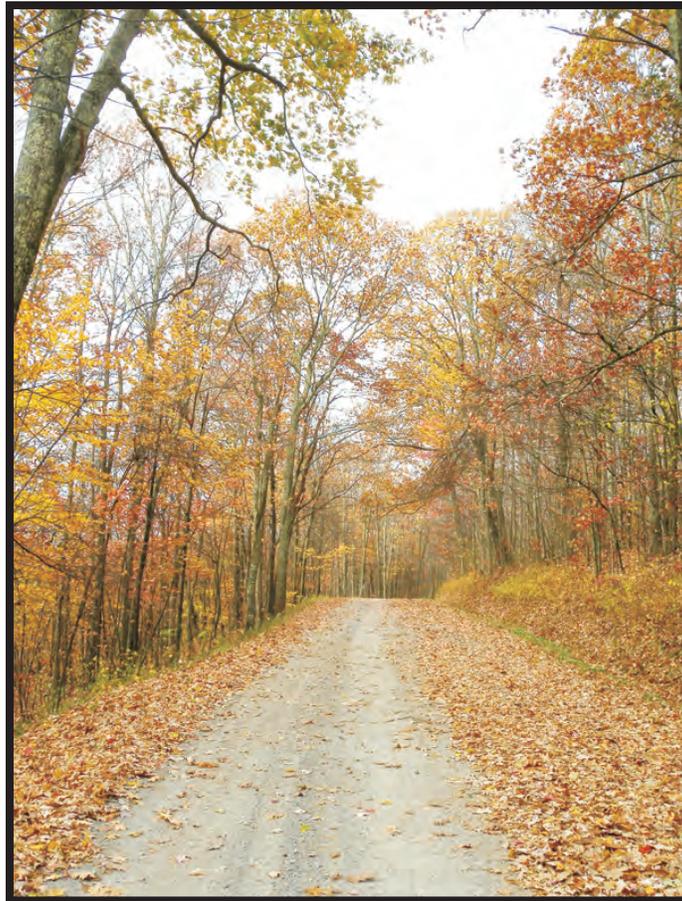


Plate B16. Landscape along County Route 2, facing north.



Plate B17. Landscape along County Route 2, facing south/southwest.



Plate B18. Cleared pasture land along County Route 2, facing northeast.



Plate B19. Cleared pasture land along County Route 2, facing south/southeast.



Plate B20. Mountainous landscape along County Route 2, facing east/northeast.



Plate B21. Landscape along County Route 2 near Allen Knob, facing northeast.



Plate B22. Landscape along County Route 2 near Allen Knob, facing southwest.

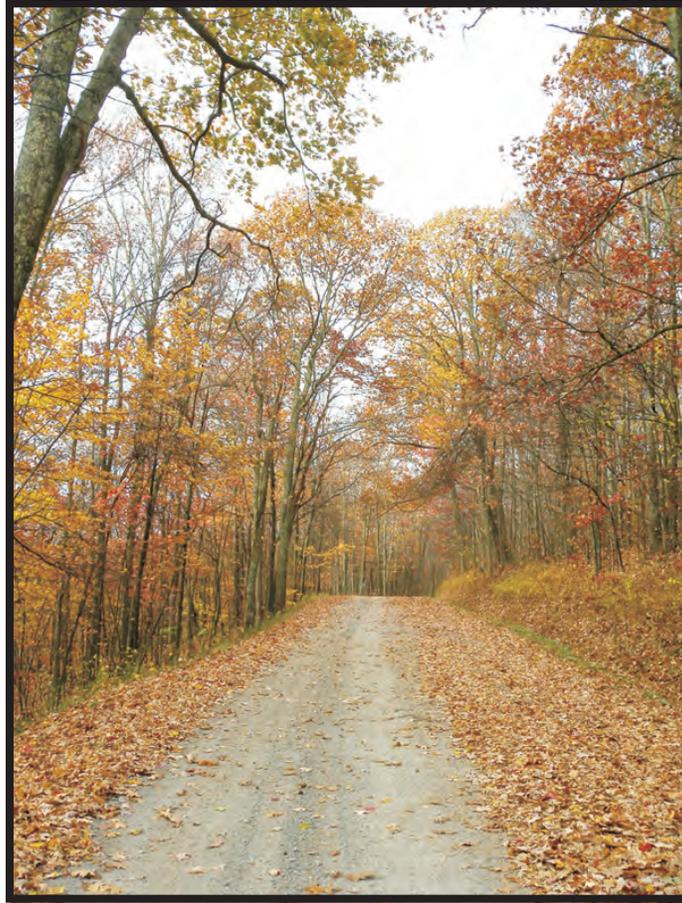


Plate B23. Landscape along County Route 2, facing north.



Plate B24. Orient Hill from cemetery, facing east.



Plate B25. Representative view of dwellings and railroad line in Leslie, facing west.



Plate B26. Representative view of dwellings in Leslie, facing northwest.



Plate B27. Leslie post office along West Virginia Route 20, facing northwest.



Plate B28. Access road and railroad tracks at upper part of Leslie, facing northeast.

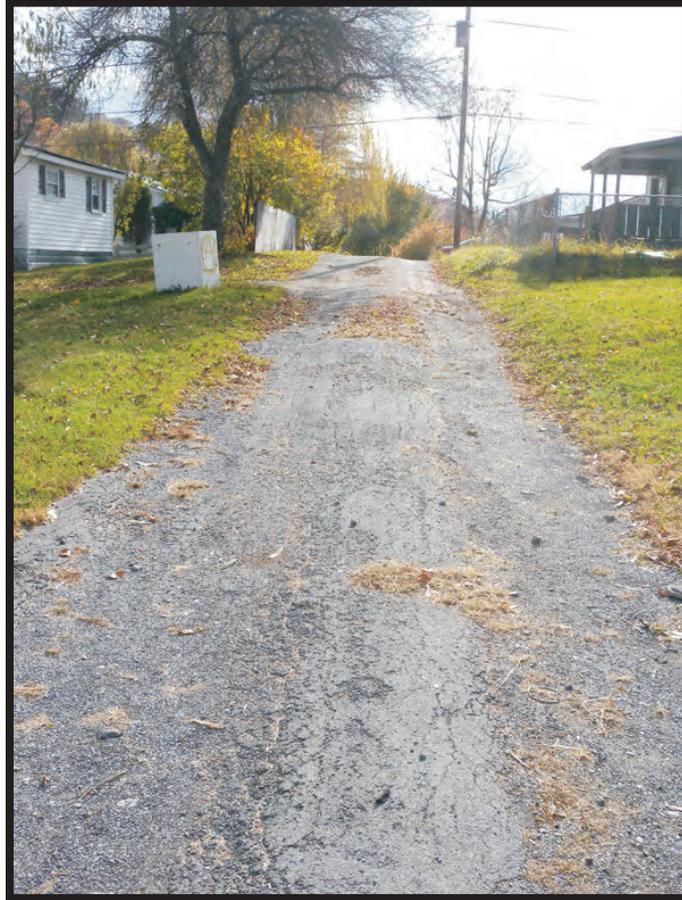


Plate B29. Access road into upper part of Leslie, facing northwest.



Plate B30. Streetscape within Leslie, facing southeast.



Plate B31. Streetscape along Bellburn Road at railroad tracks and stream, facing northwest.



Plate B32. Streetscape along Bellburn Road at railroad tracks and stream, facing northwest.



Plate B33. Streetscape along Bellburn Road beyond railroad tracks, facing north/northeast.



Plate B34. Streetscape along Bellburn Road near railroad tracks and stream, facing southeast.



Plate B35. Streetscape along Bellburn Road near railroad tracks and stream, facing east.



Plate B36. Streetscape along Bellburn Road at former spur line to mine site, facing northwest.



Plate B37. Streetscape along Bellburn Road near former worker housing, facing northeast.



Plate B38. Streetscape along First Street in Bellburn, facing northwest.



Plate B39. Streetscape along Second Street in Bellburn, facing northeast.

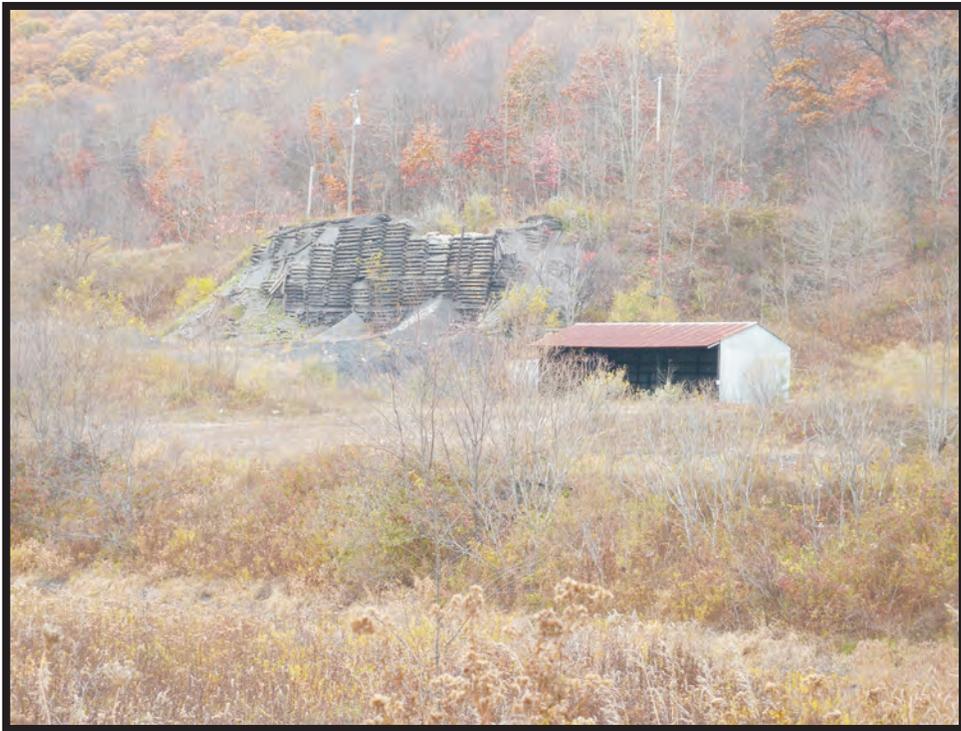


Plate B40. Abandoned mine site in Bellburn, facing northwest.



Plate B41. Abandoned mine site in Bellburn, facing southwest.

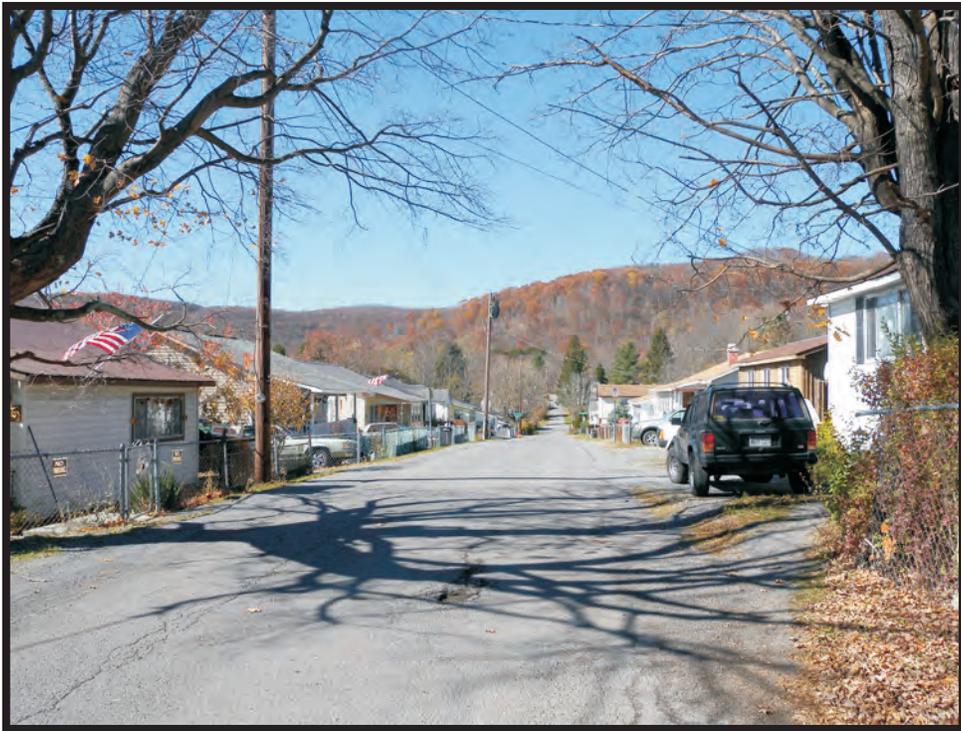


Plate B42. Streetscape along County Route 20-8/School Street in Crichton, facing west.



Plate B43. Streetscape along Crichton Avenue in Crichton, facing west.



Plate B44. Representative dwelling in Crichton, facing southeast.



Plate B45. Representative dwellings in Crichton, facing northwest.



Plate B46. Streetscape along Crichton Avenue in Crichton, facing southeast.



Plate B47. Streetscape along West Virginia Route 20 in Quinwood, facing north.



Plate B48. Streetscape along East Amick Street in Quinwood, facing east/northeast.

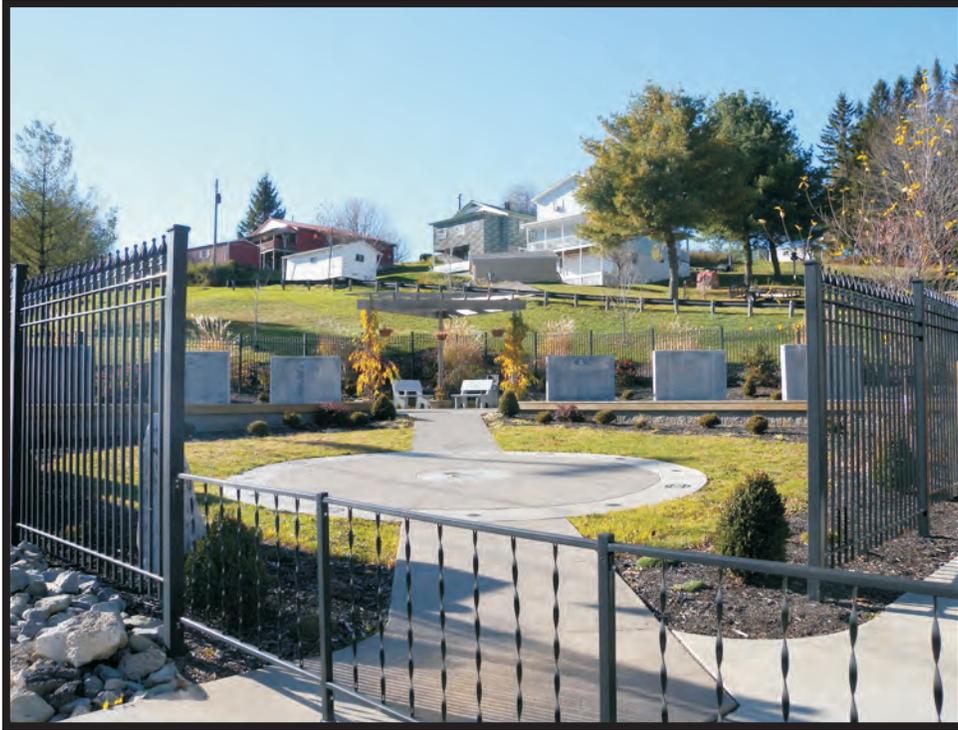


Plate B49. Miners Memorial Park in Quinwood, facing northwest.



Plate B50. Quinwood United Methodist Church with mountains in background, facing southeast.



Plate B51. Former bank building on Bell Boulevard in Quinwood, facing southeast.



Plate B52. Representative worker housing on First Street in Quinwood, facing southeast.



Plate B53. Streetscape along County Route 44-1/Littlepage Drive in Quinwood, facing northeast.



Plate B54. Streetscape along West Virginia Route 20 in Quinwood, facing northeast.



Plate B55. Streetscape along West Virginia Route 20 in Quinwood, facing northeast.



Plate B56. Railroad tracks north of Quinwood, facing northeast.



Plate B57. Streetscape along Marfrance Road in Marfrance, facing southwest.



Plate B58. Streetscape along service alley in Marfrance, facing northeast.



Plate B59. Streetscape along County Route 2-7 in Marfrance, facing southwest.



Plate B60. Streetscape from service alley in Marfrance, facing northwest.



Plate B61. Landscape along County Route 2-10, facing northeast.



Plate B62. Landscape along County Route 2-10, facing south.



Plate B63. Landscape along County Route 2-10, facing southwest.



Plate B64. Landscape along County Route 2-10, facing north.



Plate B65. Landscape along County Route 2, facing west.



Plate B66. Landscape along County Route 2, facing south.



Plate B67. Landscape along County Route 2, facing east.



Plate B68. Landscape along County Route 2/Russellville Road, facing south.



Plate B69. Landscape along County Route 2/Russellville Road, facing northwest.



Plate B70. Landscape from County Route 2/Russellville Road, facing southwest.

APPENDIX C

**ALL NEWLY AND PREVIOUSLY IDENTIFIED RESOURCES
WITHIN THE AREA OF POTENTIAL EFFECTS**

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	007	Ranch House	Field Identified		Within APE	4204348.681	529179.4959	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	006	Two-Story Side Gabled Farmhouse with Outbuildings	Field Identified		Within APE	4204411.237	529236.3374	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	004		Field Identified		Within APE	4204705.617	529174.9123	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	008	Abandoned House	Field Identified		Within APE	4204943.862	528147.014	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	014	Former Farmstead	Field Identified		Within APE	4205881.528	526183.735	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	009	House next to trailer Co. Hwy 6	Field Identified		Within APE	4207541.803	528150.0177	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	002	RR Overpass	Field Identified		Within APE	4207880.679	530186.9725	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	001	Culvert	Field Identified		Within APE	4207896.606	530185.5244	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	010	Front Gabled House	Field Identified		Within APE	4208007.239	528040.6162	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	011	Mt Zion Church and Cemetery	Field Identified		Within APE	4208455.935	528149.8585	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	039		Field Identified		Within APE	4208725.826	524503.9364	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	040	Front Gabled Bungalow	Field Identified		Within APE	4208734.431	524576.8129	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	015	Orient Hill Baptist Church	Field Identified		Within APE	4208746.266	524082.0612	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	038	Ranch	Field Identified		Within APE	4208752.041	524457.1734	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	016	Front Gabled House	Field Identified		Within APE	4208776.326	524027.808	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	036	Concrete Block House	Field Identified		Within APE	4208777.547	524422.5565	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	019	Bungalow	Field Identified		Within APE	4208797.584	524143.803	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	037	Bungalow	Field Identified		Within APE	4208797.588	524465.0676	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	018	Bungalow	Field Identified		Within APE	4208823.09	524138.9441	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	041	Bungalow with porch and 3 buildings	Field Identified		Within APE	4208838.278	524530.0486	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	021	Community Building-Auto Repair Service	Field Identified		Within APE	4208853.455	524106.1491	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	035	Front Gabled Bungalow	Field Identified		Within APE	4208864.389	524279.231	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	022	Bungalow	Field Identified		Within APE	4208878.355	524149.8747	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	033	Bungalow-Enclosed Porch Settlement Dr	Field Identified		Within APE	4208884.429	524253.7238	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	034	245 Settlement Drive	Field Identified		Within APE	4208909.936	524286.5178	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	023	Bungalow	Field Identified		Within APE	4208911.756	524121.938	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	024	Front Gabled House	Field Identified		Within APE	4208915.4	524174.7736	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	029	Altered Bungalow	Field Identified		Within APE	4208932.403	524083.0701	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	042	Side Gabled House	Field Identified		Within APE	4208944.557	524577.4166	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	025	Bungalow-Enclosed Front Porch	Field Identified		Within APE	4208948.802	524165.6634	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	030	Orient Hill Freewill Baptist Church	Field Identified		Within APE	4208952.444	524073.3529	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	026	Side Gabled House	Field Identified		Within APE	4208959.126	524192.3847	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	031	Front Gabled Bungalow	Field Identified		Within APE	4208996.777	524057.5622	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	032	Gabled House	Field Identified		Within APE	4209013.174	524048.4523	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	027	1950s Ranch	Field Identified		Within APE	4209013.176	524160.8038	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	045	652 Miller Street	Field Identified		Within APE	4209013.79	524622.356	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	046	Gambrel Roofed Bungalow	Field Identified		Within APE	4209014.392	524257.3654	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	043	T-Plan House (abandoned with garage)	Field Identified		Within APE	4209034.437	524588.3465	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	044	1950's Ranch	Field Identified		Within APE	4209056.301	524606.5653	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	028	T-Plan House	Field Identified		Within APE	4209084.837	524179.6291	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	047	Side Gabled House	Field Identified		Within APE	4209121.805	524042.6811	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	012	Farmstead 5732 Big Mountain Rd/ Co. Hwy 6	Field Identified		Within APE	4209174.029	527924.0856	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	048	Front Gabled House	Field Identified		Within APE	4209239.318	524060.8982	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	050	Side Gabled House	Field Identified		Within APE	4209414.143	523988.0185	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	052	Front Gabled House	Field Identified		Within APE	4209628.786	523963.1152	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	049	T-Plan House	Field Identified		Within APE	4209648.219	523934.5715	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	051	Side Gabled House	Field Identified		Within APE	4209673.119	523981.9409	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	053	Ranch House	Field Identified		Within APE	4209680.405	523862.3016	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	055	Front Gabled House	Field Identified		Within APE	4209693.767	523991.0501	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	054	Ranch House	Field Identified		Within APE	4209722.916	523884.7712	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	056	Sidegabled House with rear garage	Field Identified		Within APE	4209814.797	524095.8895	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	057	Sidegabled House 687 Ball Diamond Rd	Field Identified		Within APE	4209938.35	523999.7892	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	058	Gambrel Roofed Bungalow with alterations-garage, shed, all with stacked stone foundations	Field Identified		Within APE	4210093.936	524018.0909	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	060	Sidegabled House-Foreman's House	Field Identified		Within APE	4210171.131	523576.0671	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	061	Bellburn United Methodist Church	Field Identified		Within APE	4210199.087	523640.9695	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	062	Culvert over Stream	Field Identified		Within APE	4210238.485	523589.6848	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	064	Former Boarding House	Field Identified		Within APE	4210273.535	523554.8428	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	063	Bungalow-Superintendent's House w/Garage	Field Identified		Within APE	4210279.942	523600.5398	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	065	Pyramid Roof House-lower bellburn rd.	Field Identified		Within APE	4210347.614	523550.4244	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	087	Rome Baptist Church	Field Identified		Within APE	4210443.287	524071.4834	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	084	Pyramid Roof House	Field Identified		Within APE	4210458.314	523625.5213	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	067	Pyramid Roof House	Field Identified		Within APE	4210505.216	523570.5633	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	088	Bungalow	Field Identified		Within APE	4210508.394	524095.3398	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	089	Bungalow	Field Identified		Within APE	4210520.177	524054.9363	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	091	Min Trad	Field Identified		Within APE	4210549.038	524131.8944	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	090	Bungalow	Field Identified		Within APE	4210554.809	524086.6811	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	093	Min Trad	Field Identified		Within APE	4210573.568	524157.8674	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	092		Field Identified		Within APE	4210595.693	524121.7927	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	118	Bungalow	Field Identified		Within APE	4210603.388	524052.5299	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	095	Min Trad	Field Identified		Within APE	4210605.314	524188.6503	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	073	Pyramid Roof House	Field Identified		Within APE	4210616.553	523683.3183	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	074	Pyramid Roof House	Field Identified		Within APE	4210620.816	523646.3643	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	096	Faith Mission Apostolic Church	Field Identified		Within APE	4210621.668	524195.3839	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	094		Field Identified		Within APE	4210627.439	524152.0946	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	097	Bungalow	Field Identified		Within APE	4210638.021	524213.1803	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	117		Field Identified		Within APE	4210647.158	524093.4134	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	070	609 Bellburn Rd-Pyramid Roof House	Field Identified		Within APE	4210651.137	523612.2524	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	098	Bungalow	Field Identified		Within APE	4210656.299	524227.1287	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	071	Pyramid Roof House	Field Identified		Within APE	4210661.56	523649.2062	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	072	2 story house	Field Identified		Within APE	4210669.614	523670.0519	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	099	Bungalow	Field Identified		Within APE	4210671.691	524241.0771	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	116		Field Identified		Within APE	4210681.309	524121.7913	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	115a		Field Identified		Within APE	4210698.144	524134.7777	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	100	Bungalow	Field Identified		Within APE	4210702.955	524217.5081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	102	Bungaloid	Field Identified		Within APE	4210718.828	524282.9225	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	101	Bungalow	Field Identified		Within APE	4210733.257	524241.0761	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	104	Bungaloid	Field Identified		Within APE	4210733.739	524292.5421	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	105	Min. Trade 3494 Rte 20	Field Identified		Within APE	4210749.612	524308.4145	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	103	Min Trad	Field Identified		Within APE	4210753.459	524258.8724	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	106	Former Grocery	Field Identified		Within APE	4210782.8	524340.1593	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	109	Former 1st Black School	Field Identified		Within APE	4210801.559	524358.9176	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	108		Field Identified		Within APE	4210803.001	524298.7938	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	107		Field Identified		Within APE	4210820.317	524311.2992	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	110		Field Identified		Within APE	4210839.557	524319.9567	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	123		Field Identified		Within APE	4210865.773	524477.5609	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	111		Field Identified		Within APE	4210866.973	524328.1331	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	119		Field Identified		Within APE	4210869.621	524513.4748	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	134	Greenbrier Co PSD Number 2 Water House	Field Identified		Within APE	4210875.634	524564.2994	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	112		Field Identified		Within APE	4210884.289	524339.1956	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	120		Field Identified		Within APE	4210888.219	524524.377	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	113		Field Identified		Within APE	4210903.528	524344.0052	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	121	355 Slate Dump Rd	Field Identified		Within APE	4210906.176	524534.6378	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	114		Field Identified		Within APE	4210923.249	524344.4858	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	115	Post Office	Field Identified		Within APE	4210950.184	524352.1812	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	136	Abandoned house and garage	Field Identified		Within APE	4211162.689	524474.4222	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	137	143 Leslie Subdivision Rd- 2 Story House	Field Identified		Within APE	4211217.601	524450.3967	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	139		Field Identified		Within APE	4211227.9	524615.1363	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	146		Field Identified		Within APE	4211346.33	524474.1555	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	147		Field Identified		Within APE	4211365.442	524469.1494	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	140		Field Identified		Within APE	4211405.977	524611.2457	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	148	233 Leslie Bench Rd	Field Identified		Within APE	4211406.398	524460.0473	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	141		Field Identified		Within APE	4211432.518	524597.9746	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	149		Field Identified		Within APE	4211439.163	524459.1366	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	142		Field Identified		Within APE	4211439.798	524558.315	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	143		Field Identified		Within APE	4211463.685	524560.9688	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	150		Field Identified		Within APE	4211463.736	524459.5912	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	144		Field Identified		Within APE	4211499.023	524597.4421	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	145		Field Identified		Within APE	4211579.101	524580.6058	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	261	Yellow Bungalow	Field Identified		Within APE	4211662.713	526506.6259	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	222	Waterplant-Greenbrier County	Field Identified		Within APE	4211678.285	524475.5752	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	221	Culvert near waterplant	Field Identified		Within APE	4211710.135	524496.8077	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	258	Stone Block House	Field Identified		Within APE	4211756.45	526561.2753	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	256		Field Identified		Within APE	4211814.423	526995.5852	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	255		Field Identified		Within APE	4211838.357	527010.071	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	254	639 Marfrance Rd	Field Identified		Within APE	4211881.186	527028.9655	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	275		Field Identified		Within APE	4211885.489	526019.1741	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	253		Field Identified		Within APE	4211895.042	527035.8935	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	250		Field Identified		Within APE	4211924.488	527137.848	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	252	659 Marfrance Rd	Field Identified		Within APE	4211924.644	527046.6002	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	251	673 Marfrance Rd	Field Identified		Within APE	4211953.617	527056.0473	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	249		Field Identified		Within APE	4211967.001	527096.7504	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	245		Field Identified		Within APE	4212027.938	527124.6984	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	396		Field Identified		Within APE	4212038.683	526131.3645	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	246	120 Fairview Rd	Field Identified		Within APE	4212055.021	527132.8859	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	289		Field Identified		Within APE	4212064.474	525128.5626	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	306		Field Identified		Within APE	4212065.696	524941.0806	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	288		Field Identified		Within APE	4212068.284	525101.896	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	285		Field Identified		Within APE	4212071.004	525054.0051	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	286		Field Identified		Within APE	4212072.093	525069.7873	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	287		Field Identified		Within APE	4212072.093	525087.2021	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	338		Field Identified		Within APE	4212073.362	525736.1952	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	315		Field Identified		Within APE	4212075.357	525025.1616	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	314		Field Identified		Within APE	4212076.99	525009.9236	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	313		Field Identified		Within APE	4212078.622	524993.5971	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	339		Field Identified		Within APE	4212105.428	525758.6409	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	280	163 Nancy	Field Identified		Within APE	4212110.732	525104.6163	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	278	161 Nancy	Field Identified		Within APE	4212111.276	525121.487	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	284		Field Identified		Within APE	4212119.439	525058.358	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	281	167 Nancy	Field Identified		Within APE	4212139.031	525094.82	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	282	168 Nancy	Field Identified		Within APE	4212139.575	525079.582	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	283		Field Identified		Within APE	4212143.384	525061.0786	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	399		Field Identified		Within APE	4212153.801	526018.2443	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	391		Field Identified		Within APE	4212225.424	525969.6915	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	156	230 Cambell Rd 1950s house	Field Identified		Within APE	4212255.912	523563.9506	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	371		Field Identified		Within APE	4212348.232	525705.6254	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	372		Field Identified		Within APE	4212364.585	525686.8665	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	354		Field Identified		Within APE	4212372.615	525666.2862	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	424		Field Identified		Within APE	4212380.509	526209.8027	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	355	340 Rt 20	Field Identified		Within APE	4212400.592	525649.7717	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	425		Field Identified		Within APE	4212404.558	526206.4353	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	356	346 Rt 20	Field Identified		Within APE	4212414.701	525640.7929	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	155	1709 Russellville Rd Front Gabled House	Field Identified		Within APE	4212463.311	523678.8414	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	357		Field Identified		Within APE	4212485.887	525629.8893	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	158	Chestnut Grove Baptist Church	Field Identified		Within APE	4212503.011	522997.6535	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	159	Cemetery-Approx 30 marked graves earliest 1922	Field Identified		Within APE	4212512.405	522902.6423	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	358	3 Buildings	Field Identified		Within APE	4212518.834	525631.6523	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	359		Field Identified		Within APE	4212539.517	525633.5759	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	153	Bungalow with log outbuilding	Field Identified		Within APE	4212567.05	524042.6076	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	360		Field Identified		Within APE	4212568.376	525635.4994	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	154	Advent Christian Church	Field Identified		Within APE	4212578.528	523817.9188	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	361		Field Identified		Within APE	4212586.654	525645.1189	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	381	Bungalow 464	Field Identified		Within APE	4212612.146	525642.7135	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	385		Field Identified		Within APE	4212881.727	525507.3612	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	382	Rte 20 Bungalow	Field Identified		Within APE	4212898.589	525615.0826	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	384		Field Identified		Within APE	4212905.914	525506.234	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	383		Field Identified		Within APE	4212954.719	525613.2528	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	233	Roverpass	Field Identified		Within APE	4213255.426	525595.56	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	232	5941 Rte 20	Field Identified		Within APE	4213940.253	525675.2295	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	231	Front Gable House	Field Identified		Within APE	4214054.912	525670.4153	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	230	Red sidegabled house	Field Identified		Within APE	4214116.41	525654.3709	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	229	Sidegable house with additions	Field Identified		Within APE	4214209.995	525624.9566	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	227	1950s Min Trad	Field Identified		Within APE	4214335.666	525603.5634	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	228	Bungalow	Field Identified		Within APE	4214434.6	525654.3655	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	226	Frame house with decorative trim	Field Identified		Within APE	4215656.514	525722.3292	A1, A3	Nicholas	Quinwood (USGS 1972, PR 1981)
	173	Two-Story Sidegable	Field Identified		Within APE	4219318.353	526264.7236	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
	172	Small House with Extensions	Field Identified		Within APE	4219519.002	526064.0743	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
	185	1017 CR44-5 Farmhouse	Field Identified		Within APE	4220549.505	526219.5257	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	186	1024 CR445 Ranch	Field Identified		Within APE	4220734.31	526090.1898	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	216	house in ruins	Field Identified		Within APE	4221777.358	527367.7392	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	215	6520 Rte 20	Field Identified		Within APE	4221840.289	527299.336	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	165	Concrete Block House Homing Falls Rd	Field Identified		Within APE	4221948.974	525411.2659	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	210	Min Trade	Field Identified		Within APE	4222593.393	527210.7727	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	212	6004 Rte 20	Field Identified		Within APE	4222662.708	527126.8648	A1	Nicholas	Nettie (USGS 1972, PR 1979)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	211	1.5 Story Building	Field Identified		Within APE	4222867.005	527207.1962	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	187	Mintrad House	Field Identified		Within APE	4223347.638	527127.9431	A1	Nicholas	Nettie (USGS 1972, PR 1979)
Cemetery Field No. 017	017	Cemetery	Field Identified	Within Viewshed	Within APE	4208769.811	523896.3502	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
Cemetery Field No. 175	00175	Cemetery	Field Identified	Within Viewshed	Within APE	4218782.819	524770.0635	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
GB-0001	GB-0001		Previously Identified		Within APE	4213780.716	534716.5848	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0034	GB-0034		Previously Identified		Within APE	4205251.079	527873.7724	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
GB-0046-0001	GB-0046-0001		Previously Identified	Within Viewshed	Within APE	4212151.658	525959.7351	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0046-0002	GB-0046-0002		Previously Identified	Within Viewshed	Within APE	4212132.154	525989.9154	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0051	GB-0051		Previously Identified		Within APE	4211274.978	524566.4983	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0114	GB-0114		Previously Identified		Within APE	4218580.807	545121.4203	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0120	GB-0120		Previously Identified	Within Viewshed	Within APE	4218607.776	545101.9258	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0124	GB-0124		Previously Identified	Within Viewshed	Within APE	4218635.038	545079.608	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0125	GB-0125		Previously Identified	Within Viewshed	Within APE	4219126.801	534600.1266	A1, A2	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0126	GB-0126		Previously Identified	Within Viewshed	Within APE	4219449.576	533334.7544	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0127	GB-0127		Previously Identified	Within Viewshed	Within APE	4220083.281	532819.0515	A1	Greenbrier	Nettie (USGS 1972, PR 1979)
GB-0128	GB-0128		Previously Identified	Within Viewshed	Within APE	4219596.332	533357.1674	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0129	GB-0129		Previously Identified	Within Viewshed	Within APE	4221030.693	533931.3761	A1, A2	Greenbrier	Richwood (USGS 1972, PR 1981)
GB-0130	GB-0130		Previously Identified		Within APE	4208154.41	532254.5397	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0131	GB-0131		Previously Identified		Within APE	4208339.247	532293.8648	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0132	GB-0132		Previously Identified	Within Viewshed	Within APE	4213410.347	534809.1832	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0133	GB-0133		Previously Identified		Within APE	4213949.043	535196.3133	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0134	GB-0134		Previously Identified	Within Viewshed	Within APE	4213906.639	535200.1632	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-0135	GB-0135		Previously Identified	Within Viewshed	Within APE	4213895.724	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0136	GB-0136		Previously Identified	Within Viewshed	Within APE	4213883.419	535198.4433	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0137	GB-0137		Previously Identified	Within Viewshed	Within APE	4213875.084	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0138	GB-0138		Previously Identified	Within Viewshed	Within APE	4213863.639	535197.5834	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0139	GB-0139		Previously Identified	Within Viewshed	Within APE	4213857.884	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0140	GB-0140		Previously Identified	Within Viewshed	Within APE	4213843.86	535195.8635	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0141	GB-0141		Previously Identified	Within Viewshed	Within APE	4213844.905	535236.916	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0142	GB-0142		Previously Identified	Within Viewshed	Within APE	4213823.22	535195.8635	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0143	GB-0143		Previously Identified	Within Viewshed	Within APE	4213821.412	535229.9263	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0144	GB-0144		Previously Identified		Within APE	4213819.965	535282.0831	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0145	GB-0145		Previously Identified	Within Viewshed	Within APE	4213837.655	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0146	GB-0146		Previously Identified	Within Viewshed	Within APE	4213853.994	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0147	GB-0147		Previously Identified	Within Viewshed	Within APE	4213874.725	535292.0125	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0148	GB-0148		Previously Identified	Within Viewshed	Within APE	4213864.539	535320.5557	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0149	GB-0149		Previously Identified	Within Viewshed	Within APE	4213841.32	535318.8358	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0150	GB-0150		Previously Identified		Within APE	4213822.4	535317.9759	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0151	GB-0151		Previously Identified	Within Viewshed	Within APE	4213833.315	535368.3027	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0152	GB-0152		Previously Identified	Within Viewshed	Within APE	4213842.714	535443.0383	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0182	GB-0182		Previously Identified	Within Viewshed	Within APE	4218774.937	544913.9745	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0183	GB-0183		Previously Identified	Within Viewshed	Within APE	4218741.879	544958.2303	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0184	GB-0184		Previously Identified		Within APE	4225018.595	542811.5367	A2	Greenbrier	Richwood (USGS 1972, PR 1981)
GB-0185	GB-0185		Previously Identified	Within Viewshed	Within APE	4218753.689	544942.5018	A2	Greenbrier	Trout (USGS 1977, PR1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-0192	GB-0192		Previously Identified	Within Viewshed	Within APE	4218711.888	545006.9593	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0201	GB-0201		Previously Identified		Within APE	4209752.645	532742.4839	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0206	GB-0206		Previously Identified		Within APE	4226244.866	538822.1954	A2	Nicholas	Richwood (USGS 1972, PR 1981)
GB-0442	GB-0442		Previously Identified	Within Viewshed	Within APE	4208350.844	533909.4197	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-1002	377	Bungalow	Field Identified	Within Viewshed	Within APE	4212931.513	526586.8394	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1003	376	Peaser Knob Rd Farmhouse	Field Identified	Within Viewshed	Within APE	4212746.471	526466.3002	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1004	235	1940s House with alterations	Field Identified	Within Viewshed	Within APE	4212704.673	528031.6899	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1005	234	1940s house	Field Identified	Within Viewshed	Within APE	4212678.212	528003.3795	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1006	152	One Story Frontgable 1542 Russellville Rd	Field Identified	Within Viewshed	Within APE	4212497.915	524091.144	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1007	151	One Story Frontgable	Field Identified	Within Viewshed	Within APE	4212461.279	524117.5967	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1008	157	Sidegabled house and gabled roof outbuilding	Field Identified	Within Viewshed	Within APE	4212491.932	523262.6777	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1009	374		Field Identified	Within Viewshed	Within APE	4212511.083	525771.5894	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1010	378		Field Identified	Within Viewshed	Within APE	4212468.481	525835.4909	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1011	375		Field Identified	Within Viewshed	Within APE	4212457.898	525793.6449	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1012	373		Field Identified	Within Viewshed	Within APE	4212446.354	525740.2551	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1013	422		Field Identified	Within Viewshed	Within APE	4212433.897	526094.3639	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1014	380		Field Identified	Within Viewshed	Within APE	4212416.535	525915.3363	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1015	379		Field Identified	Within Viewshed	Within APE	4212404.029	525858.5796	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1016	420		Field Identified	Within Viewshed	Within APE	4212381.95	526043.3798	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1017	417		Field Identified	Within Viewshed	Within APE	4212374.254	526060.2146	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1018	416		Field Identified	Within Viewshed	Within APE	4212363.672	526073.6825	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1019	413		Field Identified	Within Viewshed	Within APE	4212358.382	526091.4793	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1020	411		Field Identified	Within Viewshed	Within APE	4212346.838	526105.9092	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1021	410	129 1st St	Field Identified	Within Viewshed	Within APE	4212338.662	526123.706	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1022	423		Field Identified	Within Viewshed	Within APE	4212351.649	526182.3867	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1023	421		Field Identified	Within Viewshed	Within APE	4212354.533	526026.0646	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1024	419		Field Identified	Within Viewshed	Within APE	4212345.394	526041.9374	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1025	418		Field Identified	Within Viewshed	Within APE	4212336.737	526060.2152	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1026	415		Field Identified	Within Viewshed	Within APE	4212327.598	526073.2021	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1027	414		Field Identified	Within Viewshed	Within APE	4212318.46	526091.9609	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1028	412		Field Identified	Within Viewshed	Within APE	4212309.321	526105.4288	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1029	409		Field Identified	Within Viewshed	Within APE	4212299.221	526123.2257	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1030	389		Field Identified	Within Viewshed	Within APE	4212349.518	525944.1969	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1031	388	Former Hardware Store	Field Identified	Within Viewshed	Within APE	4212336.531	525919.1855	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1032	370		Field Identified	Within Viewshed	Within APE	4212352.563	525847.9986	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1033	369		Field Identified	Within Viewshed	Within APE	4212345.348	525836.455	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1034	367		Field Identified	Within Viewshed	Within APE	4212331.88	525815.7726	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1035	366		Field Identified	Within Viewshed	Within APE	4212315.045	525770.5597	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1036	365	Ambulance SVC	Field Identified	Within Viewshed	Within APE	4212324.998	525715.348	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1037	353		Field Identified	Within Viewshed	Within APE	4212325.959	525648.0093	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1038	363	Price Street	Field Identified	Within Viewshed	Within APE	4212319.225	525626.3648	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1039	364		Field Identified	Within Viewshed	Within APE	4212311.048	525608.0873	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1040	362		Field Identified	Within Viewshed	Within APE	4212262.95	525656.6682	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1041	345		Field Identified	Within Viewshed	Within APE	4212271.529	525761.0431	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1042	368		Field Identified	Within Viewshed	Within APE	4212296.621	525832.7103	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1043	386		Field Identified	Within Viewshed	Within APE	4212295.166	525894.1747	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1044	387		Field Identified	Within Viewshed	Within APE	4212307.672	525930.7298	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1045	390	First Baptist Church Quinwood	Field Identified	Within Viewshed	Within APE	4212299.015	525961.0324	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1046	400		Field Identified	Within Viewshed	Within APE	4212292.806	525989.9913	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1047	401		Field Identified	Within Viewshed	Within APE	4212318.779	526009.7115	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1048	402		Field Identified	Within Viewshed	Within APE	4212304.831	526037.6092	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1049	404		Field Identified	Within Viewshed	Within APE	4212285.846	526074.7261	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1050	403		Field Identified	Within Viewshed	Within APE	4212274.048	526027.5089	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1051	405		Field Identified	Within Viewshed	Within APE	4212254.15	526057.0201	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1052	406		Field Identified	Within Viewshed	Within APE	4212248.556	526071.7605	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1053	408		Field Identified	Within Viewshed	Within APE	4212235.569	526013.5608	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1054	407		Field Identified	Within Viewshed	Within APE	4212220.178	526047.2304	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1055	347	Quinwood Rebekah Lodge No. 36	Field Identified	Within Viewshed	Within APE	4212246.117	525789.903	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1056	346	3rd Generation Restaurant 116 E Amick St.	Field Identified	Within Viewshed	Within APE	4212235.535	525774.0304	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1057	348		Field Identified	Within Viewshed	Within APE	4212229.283	525798.0801	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1058	344	Garage	Field Identified	Within Viewshed	Within APE	4212237.458	525694.6669	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1059	352	Church of the True Living God	Field Identified	Within Viewshed	Within APE	4212209.559	525615.7849	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1060	343	Former Gulf Station	Field Identified	Within Viewshed	Within APE	4212200.903	525682.1618	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1061	340		Field Identified	Within Viewshed	Within APE	4212186.875	525759.2809	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1062	351		Field Identified	Within Viewshed	Within APE	4212202.267	525817.6408	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1063	392		Field Identified	Within Viewshed	Within APE	4212190.919	525938.9557	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1064	349	Quinwood United Methodist Church 137 Church St	Field Identified	Within Viewshed	Within APE	4212177.257	525890.1106	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1065	350		Field Identified	Within Viewshed	Within APE	4212145.832	525868.3062	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1066	341		Field Identified	Within Viewshed	Within APE	4212173.487	525730.7423	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1067	342		Field Identified	Within Viewshed	Within APE	4212162.424	525700.9211	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1068	335		Field Identified	Within Viewshed	Within APE	4212157.132	525624.9246	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1069	334		Field Identified	Within Viewshed	Within APE	4212132.601	525551.8144	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1070	333		Field Identified	Within Viewshed	Within APE	4212107.108	525515.2595	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1071	336		Field Identified	Within Viewshed	Within APE	4212114.405	525636.7898	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1072	337		Field Identified	Within Viewshed	Within APE	4212099.014	525698.9982	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1073	398		Field Identified	Within Viewshed	Within APE	4212137.448	526078.4962	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1074	397		Field Identified	Within Viewshed	Within APE	4212014.287	526148.7241	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1075	267		Field Identified	Within Viewshed	Within APE	4212016.865	526235.8587	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1076	266		Field Identified	Within Viewshed	Within APE	4212001.547	526269.5598	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1077	268		Field Identified	Within Viewshed	Within APE	4211990.824	526229.7317	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1078	271		Field Identified	Within Viewshed	Within APE	4211977.547	526179.6912	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1079	265		Field Identified	Within Viewshed	Within APE	4211980.613	526307.8567	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1080	269		Field Identified	Within Viewshed	Within APE	4211962.74	526246.5826	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1081	270		Field Identified	Within Viewshed	Within APE	4211954.059	526207.7757	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1082	264		Field Identified	Within Viewshed	Within APE	4211939.692	526359.6827	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1083	274		Field Identified	Within Viewshed	Within APE	4211916.101	526139.1994	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1084	263		Field Identified	Within Viewshed	Within APE	4211898.61	526261.2145	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1085	272		Field Identified	Within Viewshed	Within APE	4211891.3	526223.6051	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1086	273		Field Identified	Within Viewshed	Within APE	4211882.832	526184.5386	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1087	329		Field Identified	Within Viewshed	Within APE	4212059.489	525452.7315	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1088	326		Field Identified	Within Viewshed	Within APE	4212048.907	525429.6441	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1089	325		Field Identified	Within Viewshed	Within APE	4212032.553	525411.8477	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1090	332		Field Identified	Within Viewshed	Within APE	4212034.479	525511.4128	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1091	331		Field Identified	Within Viewshed	Within APE	4212022.935	525497.9453	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1092	330		Field Identified	Within Viewshed	Within APE	4212019.087	525479.1867	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1093	328		Field Identified	Within Viewshed	Within APE	4211995.999	525476.7821	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1094	327		Field Identified	Within Viewshed	Within APE	4211983.974	525446.4799	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1095	276	RR Culvert	Field Identified	Within Viewshed	Within APE	4211813.308	525391.2061	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1096	279	166 Nancy	Field Identified	Within Viewshed	Within APE	4212143.159	525109.6949	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1097	311		Field Identified	Within Viewshed	Within APE	4212099.844	524869.5158	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1098	312		Field Identified	Within Viewshed	Within APE	4212095.491	524892.9171	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1099	310		Field Identified	Within Viewshed	Within APE	4212080.592	524817.8157	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1100	309		Field Identified	Within Viewshed	Within APE	4212074.878	524840.6729	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1101	308		Field Identified	Within Viewshed	Within APE	4212071.613	524861.4891	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1102	323		Field Identified	Within Viewshed	Within APE	4212026.716	524860.6736	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1103	316		Field Identified	Within Viewshed	Within APE	4212028.757	524883.9387	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1104	307		Field Identified	Within Viewshed	Within APE	4212027.125	524897.408	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1105	322		Field Identified	Within Viewshed	Within APE	4212009.981	524807.2048	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1106	321		Field Identified	Within Viewshed	Within APE	4212005.491	524826.3884	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1107	320		Field Identified	Within Viewshed	Within APE	4212000.186	524856.1843	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1108	317		Field Identified	Within Viewshed	Within APE	4211958.145	524816.1852	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1109	318		Field Identified	Within Viewshed	Within APE	4211958.145	524832.5116	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1110	319		Field Identified	Within Viewshed	Within APE	4211955.697	524875.3686	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1111	305		Field Identified	Within Viewshed	Within APE	4212050.141	525003.892	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1112	304		Field Identified	Within Viewshed	Within APE	4212051.956	525019.7199	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1113	295		Field Identified	Within Viewshed	Within APE	4212049.235	525048.5633	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1114	294		Field Identified	Within Viewshed	Within APE	4212045.97	525064.8898	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1115	293		Field Identified	Within Viewshed	Within APE	4212043.25	525079.5836	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1116	292		Field Identified	Within Viewshed	Within APE	4212040.529	525095.9101	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1117	291		Field Identified	Within Viewshed	Within APE	4212039.985	525112.2366	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1118	290		Field Identified	Within Viewshed	Within APE	4212037.264	525136.182	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1119	277	Church	Field Identified	Within Viewshed	Within APE	4212040.843	525243.0957	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1120	296		Field Identified	Within Viewshed	Within APE	4212002.977	525042.5777	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1121	297	53 Crichton Ave	Field Identified	Within Viewshed	Within APE	4212000.801	525061.081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1122	298	54 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211999.168	525077.4075	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1123	299	55 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211994.815	525091.5572	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1124	300	56 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211995.359	525105.7067	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1125	301	57 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211991.55	525119.8564	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1126	302	58 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211993.637	525135.5478	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1127	303		Field Identified	Within Viewshed	Within APE	4211993.411	525152.2826	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1128	324	School (Formerly Meadowbrook HS)	Field Identified	Within Viewshed	Within APE	4211997.811	525264.9802	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1129	259	Bungalow 131 Hardwood Drive	Field Identified	Within Viewshed	Within APE	4211709.238	526425.1907	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1130	260	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4211656.156	526435.8081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1131	262	Bungalow	Field Identified	Within Viewshed	Within APE	4211567.526	526469.0271	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1132	257	Frontgable house on Marfrance Rd	Field Identified	Within Viewshed	Within APE	4211677.715	526777.5468	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1133	236	Worker Housing 683-684	Field Identified	Within Viewshed	Within APE	4212785.978	527737.8219	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1134	237	Worker Housing 685-686	Field Identified	Within Viewshed	Within APE	4212209.519	527089.5801	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1135	238	Worker Housing 687-688	Field Identified	Within Viewshed	Within APE	4212197.327	527086.8768	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1136	239	Worker Housing 689-690	Field Identified	Within Viewshed	Within APE	4212173.639	527077.5631	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1137	240	Worker Housing 691-692	Field Identified	Within Viewshed	Within APE	4212160.259	527071.056	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1138	241	Worker Housing 693-694	Field Identified	Within Viewshed	Within APE	4212141.163	527061.0623	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1139	242	Worker Housing 695-696	Field Identified	Within Viewshed	Within APE	4212115.044	527055.0261	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1140	243	Worker Housing 699-700	Field Identified	Within Viewshed	Within APE	4212100.323	527050.4532	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1141	244	Worker Housing 697-698	Field Identified	Within Viewshed	Within APE	4212083.341	527044.7967	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1142	247		Field Identified	Within Viewshed	Within APE	4212131.231	527130.9951	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1143	248		Field Identified	Within Viewshed	Within APE	4212104.778	527121.5479	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1144	135		Field Identified	Within Viewshed	Within APE	4211077.408	524558.3637	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1145	129		Field Identified	Within Viewshed	Within APE	4210936.298	524451.5009	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1146	130		Field Identified	Within Viewshed	Within APE	4210910.029	524442.8277	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1147	133		Field Identified	Within Viewshed	Within APE	4210969.666	524496.1574	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1148	125		Field Identified	Within Viewshed	Within APE	4210936.959	524480.125	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1149	126		Field Identified	Within Viewshed	Within APE	4210919.002	524471.7881	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1150	127		Field Identified	Within Viewshed	Within APE	4210898.48	524463.4513	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1151	128		Field Identified	Within Viewshed	Within APE	4210883.729	524452.5491	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1152	132		Field Identified	Within Viewshed	Within APE	4210959.405	524521.1691	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1153	131		Field Identified	Within Viewshed	Within APE	4210940.166	524513.4736	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1154	124		Field Identified	Within Viewshed	Within APE	4210922.209	524505.7781	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1155	122		Field Identified	Within Viewshed	Within APE	4210904.252	524489.234	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1156	013	House and Barn	Field Identified	Within Viewshed	Within APE	4210496.423	526527.4541	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1157	066	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210562.542	523588.0917	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1158	077	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210574.387	523666.2634	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1159	075	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210572.967	523701.3223	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1160	076	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210561.123	523705.5864	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1161	078	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210546.436	523712.2194	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1162	080	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210526.538	523719.8001	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1163	081	Pyramid Roof House-195 Second St.	Field Identified	Within Viewshed	Within APE	4210505.692	523726.907	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1164	082	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210463.053	523717.9061	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1165	083	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210455.947	523706.5358	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1166	086	House in Ruins	Field Identified	Within Viewshed	Within APE	4210446.945	523690.4278	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1167	085	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210443.485	523674.7117	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1168	079	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210541.698	523678.5819	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1169	069	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210516.588	523647.7874	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1170	068	Sidegabled House	Field Identified	Within Viewshed	Within APE	4210505.217	523610.8336	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1171	160	Former Bookeepers House and Garage	Field Identified	Within Viewshed	Within APE	4210237.985	523571.4797	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1172	059	Store Mgr. House-Sidegable House	Field Identified	Within Viewshed	Within APE	4210153.978	523602.6983	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1173	395		Previously Identified	Within Viewshed	Within APE	4212099.586	525985.832	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1174	020	Bungalow	Field Identified	Within Viewshed	Within APE	4208750.807	524161.7936	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1175	003	Bungalow	Field Identified	Within Viewshed	Within APE	4204875.435	529077.2786	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
GB-1176	005	Blue House	Field Identified	Within Viewshed	Within APE	4204769.68	529001.0192	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
NI-0002-0076	NI-0002-0076		Previously Identified	Within Viewshed	Within APE	4219192.088	528126.9787	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0002-0102	NI-0002-0102		Previously Identified	Within Viewshed	Within APE	4217565.864	523834.7274	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0002-0150	NI-0002-0150		Previously Identified		Within APE	4219112.26	528703.0371	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0192	NI-0026-0192		Previously Identified	Within Viewshed	Within APE	4218818.996	524683.2662	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0193	NI-0026-0193		Previously Identified		Within APE	4218251.343	524943.9215	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0194	NI-0026-0194		Previously Identified		Within APE	4217739.384	525166.1454	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0195	NI-0026-0195		Previously Identified		Within APE	4217880.108	525208.7051	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0196	NI-0026-0196		Previously Identified	Within Viewshed	Within APE	4217746.971	525507.4832	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0197	NI-0026-0197		Previously Identified		Within APE	4217987.329	524656.3482	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0198	NI-0026-0198		Previously Identified	Within Viewshed	Within APE	4217326.429	524296.5504	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0199	NI-0026-0199		Previously Identified	Within Viewshed	Within APE	4217639.962	523809.0029	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0200	NI-0026-0200		Previously Identified	Within Viewshed	Within APE	4217542.405	523800.1881	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0001	NI-0027-0001		Previously Identified	Within Viewshed	Within APE	4219089.949	528431.1139	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0002	NI-0027-0002		Previously Identified	Within Viewshed	Within APE	4219068.871	528626.0785	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0003	NI-0027-0003		Previously Identified	Within Viewshed	Within APE	4219259.892	529946.0417	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0004	NI-0027-0004		Previously Identified	Within Viewshed	Within APE	4220730.3	530609.7976	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0005	NI-0027-0005		Previously Identified	Within Viewshed	Within APE	4221255.586	530296.8944	A1	Nicholas	Nettie (USGS 1972, PR 1979)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0027-0006	NI-0027-0006		Previously Identified	Within Viewshed	Within APE	4223136.679	527506.2123	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0007	NI-0027-0007		Previously Identified	Within Viewshed	Within APE	4218207.232	527730.2075	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0008	NI-0027-0008		Previously Identified		Within APE	4218252.09	527678.9194	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0009	NI-0027-0009		Previously Identified	Within Viewshed	Within APE	4218406.224	527977.953	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0010	NI-0027-0010		Previously Identified	Within Viewshed	Within APE	4218423.35	527925.2598	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0011	NI-0027-0011		Previously Identified	Within Viewshed	Within APE	4218605.001	528094.4459	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0012	NI-0027-0012		Previously Identified	Within Viewshed	Within APE	4218821.268	528311.4018	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0013	NI-0027-0013		Previously Identified	Within Viewshed	Within APE	4218881.802	528553.6255	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0014	NI-0027-0014		Previously Identified		Within APE	4219461.453	528865.8322	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0015	NI-0027-0015		Previously Identified	Within Viewshed	Within APE	4220837.765	527691.2217	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0016	NI-0027-0016		Previously Identified		Within APE	4223412.098	527079.0745	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0017	NI-0027-0017		Previously Identified		Within APE	4223411.268	527111.0546	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0021	NI-0027-0021		Previously Identified		Within APE	4223685.686	527274.3185	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0022	NI-0027-0022		Previously Identified	Within Viewshed	Within APE	4223971.029	527809.4366	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0024	NI-0027-0024		Previously Identified	Within Viewshed	Within APE	4223913.492	527609.5264	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0042	NI-0027-0042		Previously Identified	Within Viewshed	Within APE	4225027.875	532710.0427	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0049	NI-0027-0049		Previously Identified		Within APE	4217876.739	528385.6691	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0050	NI-0027-0050		Previously Identified		Within APE	4217787.213	528279.2855	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0051	NI-0027-0051		Previously Identified	Within Viewshed	Within APE	4217197.517	528281.5826	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0052	NI-0027-0052		Previously Identified	Within Viewshed	Within APE	4219030.667	528612.9052	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0053	NI-0027-0053		Previously Identified		Within APE	4223587.316	527147.8763	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0090	190	One Story House 5419 CR 20	Field Identified	Within Viewshed	Within APE	4223531.054	527109.1987	A1	Nicholas	Nettie (USGS 1972, PR 1979)

Appendix C. All Newly and Previously Identified Resources within the Area of Potential Effects

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0091	213	Bungalow	Field Identified	Within Viewshed	Within APE	4222568.864	527072.7274	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0092	214	1950's Ranch	Field Identified	Within Viewshed	Within APE	4222436.522	527061.1978	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0093	217	6576 Rte 20 House with outbuildings	Field Identified	Within Viewshed	Within APE	4221739.612	527331.7026	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0094	220	7212 Rte 20	Field Identified	Within Viewshed	Within APE	4220835.183	527782.4401	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0095	171	T-Plan Dwelling	Field Identified	Within Viewshed	Within APE	4219745.188	525370.9222	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0096	183	954 CR17 Concrete Block House	Field Identified	Within Viewshed	Within APE	4217802.739	525451.69	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0097	223	backhouse	Field Identified	Within Viewshed	Within APE	4216889.669	526358.6893	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0098	224	frontgable house	Field Identified	Within Viewshed	Within APE	4216795.103	526297.6553	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0099	225	10798 Rte 20 Green Valley Missionary Baptist Church	Field Identified	Within Viewshed	Within APE	4216754.144	526300.3344	A1	Nicholas	Quinwood (USGS 1972, PR 1981)

APPENDIX D

**ALL NEWLY AND PREVIOUSLY IDENTIFIED RESOURCES
WITH ANTICIPATED VIEWS OF THE UNDERTAKING**

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
Cemetery Field No. 00175	175	Cemetery	Field Identified	Within Viewshed	Within APE	4218782.819	524770.0635	A3	Nicholas	Quinwood (USGS 1972, PR 1981)
Cemetery Field No. 017	17	Cemetery	Field Identified	Within Viewshed	Within APE	4208769.811	523896.3502	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0046-0001	GB-0046-0001		Previously Identified	Within Viewshed	Within APE	4212151.658	525959.7351	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0046-0002	GB-0046-0002		Previously Identified	Within Viewshed	Within APE	4212132.154	525989.9154	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0120	GB-0120		Previously Identified	Within Viewshed	Within APE	4218607.776	545101.9258	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0124	GB-0124		Previously Identified	Within Viewshed	Within APE	4218635.038	545079.608	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0125	GB-0125		Previously Identified	Within Viewshed	Within APE	4219126.801	534600.1266	A1, A2	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0126	GB-0126		Previously Identified	Within Viewshed	Within APE	4219449.576	533334.7544	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0127	GB-0127		Previously Identified	Within Viewshed	Within APE	4220083.281	532819.0515	A1	Greenbrier	Nettie (USGS 1972, PR 1979)
GB-0128	GB-0128		Previously Identified	Within Viewshed	Within APE	4219596.332	533357.1674	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0129	GB-0129		Previously Identified	Within Viewshed	Within APE	4221030.693	533931.3761	A1, A2	Greenbrier	Richwood (USGS 1972, PR 1981)
GB-0132	GB-0132		Previously Identified	Within Viewshed	Within APE	4213410.347	534809.1832	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0134	GB-0134		Previously Identified	Within Viewshed	Within APE	4213906.639	535200.1632	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0135	GB-0135		Previously Identified	Within Viewshed	Within APE	4213895.724	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0136	GB-0136		Previously Identified	Within Viewshed	Within APE	4213883.419	535198.4433	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0137	GB-0137		Previously Identified	Within Viewshed	Within APE	4213875.084	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0138	GB-0138		Previously Identified	Within Viewshed	Within APE	4213863.639	535197.5834	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0139	GB-0139		Previously Identified	Within Viewshed	Within APE	4213857.884	535237.1409	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0140	GB-0140		Previously Identified	Within Viewshed	Within APE	4213843.86	535195.8635	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0141	GB-0141		Previously Identified	Within Viewshed	Within APE	4213844.905	535236.916	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0142	GB-0142		Previously Identified	Within Viewshed	Within APE	4213823.22	535195.8635	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0143	GB-0143		Previously Identified	Within Viewshed	Within APE	4213821.412	535229.9263	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-0145	GB-0145		Previously Identified	Within Viewshed	Within APE	4213837.655	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0146	GB-0146		Previously Identified	Within Viewshed	Within APE	4213853.994	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0147	GB-0147		Previously Identified	Within Viewshed	Within APE	4213874.725	535292.0125	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0148	GB-0148		Previously Identified	Within Viewshed	Within APE	4213864.539	535320.5557	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0149	GB-0149		Previously Identified	Within Viewshed	Within APE	4213841.32	535318.8358	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0151	GB-0151		Previously Identified	Within Viewshed	Within APE	4213833.315	535368.3027	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0152	GB-0152		Previously Identified	Within Viewshed	Within APE	4213842.714	535443.0383	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0182	GB-0182		Previously Identified	Within Viewshed	Within APE	4218774.937	544913.9745	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0183	GB-0183		Previously Identified	Within Viewshed	Within APE	4218741.879	544958.2303	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0185	GB-0185		Previously Identified	Within Viewshed	Within APE	4218753.689	544942.5018	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0192	GB-0192		Previously Identified	Within Viewshed	Within APE	4218711.888	545006.9593	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0442	GB-0442		Previously Identified	Within Viewshed	Within APE	4208350.844	533909.4197	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-1002	377	Bungalow	Field Identified	Within Viewshed	Within APE	4212931.513	526586.8394	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1003	376	Peaser Knob Rd Farmhouse	Field Identified	Within Viewshed	Within APE	4212746.471	526466.3002	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1004	235	1940s House with alterations	Field Identified	Within Viewshed	Within APE	4212704.673	528031.6899	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1005	234	1940s house	Field Identified	Within Viewshed	Within APE	4212678.212	528003.3795	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1006	152	One Story Frontgable 1542 Russellville Rd	Field Identified	Within Viewshed	Within APE	4212497.915	524091.144	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1007	151	One Story Frontgable	Field Identified	Within Viewshed	Within APE	4212461.279	524117.5967	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1008	157	Sidegabled house and gabled roof outbuilding	Field Identified	Within Viewshed	Within APE	4212491.932	523262.6777	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1009	374		Field Identified	Within Viewshed	Within APE	4212511.083	525771.5894	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1010	378		Field Identified	Within Viewshed	Within APE	4212468.481	525835.4909	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1011	375		Field Identified	Within Viewshed	Within APE	4212457.898	525793.6449	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1012	373		Field Identified	Within Viewshed	Within APE	4212446.354	525740.2551	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1013	422		Field Identified	Within Viewshed	Within APE	4212433.897	526094.3639	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1014	380		Field Identified	Within Viewshed	Within APE	4212416.535	525915.3363	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1015	379		Field Identified	Within Viewshed	Within APE	4212404.029	525858.5796	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1016	420		Field Identified	Within Viewshed	Within APE	4212381.95	526043.3798	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1017	417		Field Identified	Within Viewshed	Within APE	4212374.254	526060.2146	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1018	416		Field Identified	Within Viewshed	Within APE	4212363.672	526073.6825	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1019	413		Field Identified	Within Viewshed	Within APE	4212358.382	526091.4793	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1020	411		Field Identified	Within Viewshed	Within APE	4212346.838	526105.9092	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1021	410	129 1st St	Field Identified	Within Viewshed	Within APE	4212338.662	526123.706	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1022	423		Field Identified	Within Viewshed	Within APE	4212351.649	526182.3867	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1023	421		Field Identified	Within Viewshed	Within APE	4212354.533	526026.0646	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1024	419		Field Identified	Within Viewshed	Within APE	4212345.394	526041.9374	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1025	418		Field Identified	Within Viewshed	Within APE	4212336.737	526060.2152	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1026	415		Field Identified	Within Viewshed	Within APE	4212327.598	526073.2021	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1027	414		Field Identified	Within Viewshed	Within APE	4212318.46	526091.9609	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1028	412		Field Identified	Within Viewshed	Within APE	4212309.321	526105.4288	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1029	409		Field Identified	Within Viewshed	Within APE	4212299.221	526123.2257	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1030	389		Field Identified	Within Viewshed	Within APE	4212349.518	525944.1969	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1031	388	Former Hardware Store	Field Identified	Within Viewshed	Within APE	4212336.531	525919.1855	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1032	370		Field Identified	Within Viewshed	Within APE	4212352.563	525847.9986	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1033	369		Field Identified	Within Viewshed	Within APE	4212345.348	525836.455	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1034	367		Field Identified	Within Viewshed	Within APE	4212331.88	525815.7726	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1035	366		Field Identified	Within Viewshed	Within APE	4212315.045	525770.5597	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1036	365	Ambulance SVC	Field Identified	Within Viewshed	Within APE	4212324.998	525715.348	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1037	353		Field Identified	Within Viewshed	Within APE	4212325.959	525648.0093	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1038	363	Price Street	Field Identified	Within Viewshed	Within APE	4212319.225	525626.3648	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1039	364		Field Identified	Within Viewshed	Within APE	4212311.048	525608.0873	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1040	362		Field Identified	Within Viewshed	Within APE	4212262.95	525656.6682	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1041	345		Field Identified	Within Viewshed	Within APE	4212271.529	525761.0431	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1042	368		Field Identified	Within Viewshed	Within APE	4212296.621	525832.7103	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1043	386		Field Identified	Within Viewshed	Within APE	4212295.166	525894.1747	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1044	387		Field Identified	Within Viewshed	Within APE	4212307.672	525930.7298	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1045	390	First Baptist Church Quinwood	Field Identified	Within Viewshed	Within APE	4212299.015	525961.0324	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1046	400		Field Identified	Within Viewshed	Within APE	4212292.806	525989.9913	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1047	401		Field Identified	Within Viewshed	Within APE	4212318.779	526009.7115	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1048	402		Field Identified	Within Viewshed	Within APE	4212304.831	526037.6092	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1049	404		Field Identified	Within Viewshed	Within APE	4212285.846	526074.7261	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1050	403		Field Identified	Within Viewshed	Within APE	4212274.048	526027.5089	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1051	405		Field Identified	Within Viewshed	Within APE	4212254.15	526057.0201	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1052	406		Field Identified	Within Viewshed	Within APE	4212248.556	526071.7605	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1053	408		Field Identified	Within Viewshed	Within APE	4212235.569	526013.5608	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1054	407		Field Identified	Within Viewshed	Within APE	4212220.178	526047.2304	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1055	347	Quinwood Rebekah Lodge No. 36	Field Identified	Within Viewshed	Within APE	4212246.117	525789.903	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1056	346	3rd Generation Restaurant 116 E Amick St.	Field Identified	Within Viewshed	Within APE	4212235.535	525774.0304	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1057	348		Field Identified	Within Viewshed	Within APE	4212229.283	525798.0801	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1058	344	Garage	Field Identified	Within Viewshed	Within APE	4212237.458	525694.6669	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1059	352	Church of the True Living God	Field Identified	Within Viewshed	Within APE	4212209.559	525615.7849	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1060	343	Former Gulf Station	Field Identified	Within Viewshed	Within APE	4212200.903	525682.1618	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1061	340		Field Identified	Within Viewshed	Within APE	4212186.875	525759.2809	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1062	351		Field Identified	Within Viewshed	Within APE	4212202.267	525817.6408	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1063	392		Field Identified	Within Viewshed	Within APE	4212190.919	525938.9557	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1064	349	Quinwood United Methodist Church 137 Church St	Field Identified	Within Viewshed	Within APE	4212177.257	525890.1106	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1065	350		Field Identified	Within Viewshed	Within APE	4212145.832	525868.3062	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1066	341		Field Identified	Within Viewshed	Within APE	4212173.487	525730.7423	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1067	342		Field Identified	Within Viewshed	Within APE	4212162.424	525700.9211	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1068	335		Field Identified	Within Viewshed	Within APE	4212157.132	525624.9246	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1069	334		Field Identified	Within Viewshed	Within APE	4212132.601	525551.8144	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1070	333		Field Identified	Within Viewshed	Within APE	4212107.108	525515.2595	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1071	336		Field Identified	Within Viewshed	Within APE	4212114.405	525636.7898	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1072	337		Field Identified	Within Viewshed	Within APE	4212099.014	525698.9982	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1073	398		Field Identified	Within Viewshed	Within APE	4212137.448	526078.4962	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1074	397		Field Identified	Within Viewshed	Within APE	4212014.287	526148.7241	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1075	267		Field Identified	Within Viewshed	Within APE	4212016.865	526235.8587	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1076	266		Field Identified	Within Viewshed	Within APE	4212001.547	526269.5598	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1077	268		Field Identified	Within Viewshed	Within APE	4211990.824	526229.7317	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1078	271		Field Identified	Within Viewshed	Within APE	4211977.547	526179.6912	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1079	265		Field Identified	Within Viewshed	Within APE	4211980.613	526307.8567	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1080	269		Field Identified	Within Viewshed	Within APE	4211962.74	526246.5826	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1081	270		Field Identified	Within Viewshed	Within APE	4211954.059	526207.7757	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1082	264		Field Identified	Within Viewshed	Within APE	4211939.692	526359.6827	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1083	274		Field Identified	Within Viewshed	Within APE	4211916.101	526139.1994	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1084	263		Field Identified	Within Viewshed	Within APE	4211898.61	526261.2145	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1085	272		Field Identified	Within Viewshed	Within APE	4211891.3	526223.6051	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1086	273		Field Identified	Within Viewshed	Within APE	4211882.832	526184.5386	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1087	329		Field Identified	Within Viewshed	Within APE	4212059.489	525452.7315	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1088	326		Field Identified	Within Viewshed	Within APE	4212048.907	525429.6441	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1089	325		Field Identified	Within Viewshed	Within APE	4212032.553	525411.8477	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1090	332		Field Identified	Within Viewshed	Within APE	4212034.479	525511.4128	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1091	331		Field Identified	Within Viewshed	Within APE	4212022.935	525497.9453	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1092	330		Field Identified	Within Viewshed	Within APE	4212019.087	525479.1867	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1093	328		Field Identified	Within Viewshed	Within APE	4211995.999	525476.7821	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1094	327		Field Identified	Within Viewshed	Within APE	4211983.974	525446.4799	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1095	276	RR Culvert	Field Identified	Within Viewshed	Within APE	4211813.308	525391.2061	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1096	279	166 Nancy	Field Identified	Within Viewshed	Within APE	4212143.159	525109.6949	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1097	311		Field Identified	Within Viewshed	Within APE	4212099.844	524869.5158	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1098	312		Field Identified	Within Viewshed	Within APE	4212095.491	524892.9171	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1099	310		Field Identified	Within Viewshed	Within APE	4212080.592	524817.8157	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1100	309		Field Identified	Within Viewshed	Within APE	4212074.878	524840.6729	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1101	308		Field Identified	Within Viewshed	Within APE	4212071.613	524861.4891	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1102	323		Field Identified	Within Viewshed	Within APE	4212026.716	524860.6736	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1103	316		Field Identified	Within Viewshed	Within APE	4212028.757	524883.9387	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1104	307		Field Identified	Within Viewshed	Within APE	4212027.125	524897.408	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1105	322		Field Identified	Within Viewshed	Within APE	4212009.981	524807.2048	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1106	321		Field Identified	Within Viewshed	Within APE	4212005.491	524826.3884	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1107	320		Field Identified	Within Viewshed	Within APE	4212000.186	524856.1843	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1108	317		Field Identified	Within Viewshed	Within APE	4211958.145	524816.1852	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1109	318		Field Identified	Within Viewshed	Within APE	4211958.145	524832.5116	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1110	319		Field Identified	Within Viewshed	Within APE	4211955.697	524875.3686	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1111	305		Field Identified	Within Viewshed	Within APE	4212050.141	525003.892	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1112	304		Field Identified	Within Viewshed	Within APE	4212051.956	525019.7199	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1113	295		Field Identified	Within Viewshed	Within APE	4212049.235	525048.5633	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1114	294		Field Identified	Within Viewshed	Within APE	4212045.97	525064.8898	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1115	293		Field Identified	Within Viewshed	Within APE	4212043.25	525079.5836	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1116	292		Field Identified	Within Viewshed	Within APE	4212040.529	525095.9101	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1117	291		Field Identified	Within Viewshed	Within APE	4212039.985	525112.2366	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1118	290		Field Identified	Within Viewshed	Within APE	4212037.264	525136.182	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1119	277	Church	Field Identified	Within Viewshed	Within APE	4212040.843	525243.0957	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1120	296		Field Identified	Within Viewshed	Within APE	4212002.977	525042.5777	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1121	297	53 Crichton Ave	Field Identified	Within Viewshed	Within APE	4212000.801	525061.081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1122	298	54 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211999.168	525077.4075	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1123	299	55 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211994.815	525091.5572	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1124	300	56 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211995.359	525105.7067	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1125	301	57 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211991.55	525119.8564	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1126	302	58 Crichton Ave	Field Identified	Within Viewshed	Within APE	4211993.637	525135.5478	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1127	303		Field Identified	Within Viewshed	Within APE	4211993.411	525152.2826	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1128	324	School (Formerly Meadowbrook HS)	Field Identified	Within Viewshed	Within APE	4211997.811	525264.9802	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1129	259	Bungalow 131 Hardwood Drive	Field Identified	Within Viewshed	Within APE	4211709.238	526425.1907	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1130	260	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4211656.156	526435.8081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1131	262	Bungalow	Field Identified	Within Viewshed	Within APE	4211567.526	526469.0271	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1132	257	Frontgable house on Marfrance Rd	Field Identified	Within Viewshed	Within APE	4211677.715	526777.5468	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1133	236	Worker Housing 683-684	Field Identified	Within Viewshed	Within APE	4212785.978	527737.8219	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1134	237	Worker Housing 685-686	Field Identified	Within Viewshed	Within APE	4212209.519	527089.5801	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1135	238	Worker Housing 687-688	Field Identified	Within Viewshed	Within APE	4212197.327	527086.8768	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1136	239	Worker Housing 689-690	Field Identified	Within Viewshed	Within APE	4212173.639	527077.5631	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1137	240	Worker Housing 691-692	Field Identified	Within Viewshed	Within APE	4212160.259	527071.056	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1138	241	Worker Housing 693-694	Field Identified	Within Viewshed	Within APE	4212141.163	527061.0623	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1139	242	Worker Housing 695-696	Field Identified	Within Viewshed	Within APE	4212115.044	527055.0261	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1140	243	Worker Housing 699-700	Field Identified	Within Viewshed	Within APE	4212100.323	527050.4532	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1141	244	Worker Housing 697-698	Field Identified	Within Viewshed	Within APE	4212083.341	527044.7967	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1142	247		Field Identified	Within Viewshed	Within APE	4212131.231	527130.9951	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1143	248		Field Identified	Within Viewshed	Within APE	4212104.778	527121.5479	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1144	135		Field Identified	Within Viewshed	Within APE	4211077.408	524558.3637	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1145	129		Field Identified	Within Viewshed	Within APE	4210936.298	524451.5009	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1146	130		Field Identified	Within Viewshed	Within APE	4210910.029	524442.8277	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1147	133		Field Identified	Within Viewshed	Within APE	4210969.666	524496.1574	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1148	125		Field Identified	Within Viewshed	Within APE	4210936.959	524480.125	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1149	126		Field Identified	Within Viewshed	Within APE	4210919.002	524471.7881	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1150	127		Field Identified	Within Viewshed	Within APE	4210898.48	524463.4513	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1151	128		Field Identified	Within Viewshed	Within APE	4210883.729	524452.5491	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1152	132		Field Identified	Within Viewshed	Within APE	4210959.405	524521.1691	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1153	131		Field Identified	Within Viewshed	Within APE	4210940.166	524513.4736	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1154	124		Field Identified	Within Viewshed	Within APE	4210922.209	524505.7781	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1155	122		Field Identified	Within Viewshed	Within APE	4210904.252	524489.234	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1156	13	House and Barn	Field Identified	Within Viewshed	Within APE	4210496.423	526527.4541	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1157	66	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210562.542	523588.0917	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1158	77	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210574.387	523666.2634	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1159	75	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210572.967	523701.3223	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1160	76	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210561.123	523705.5864	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1161	78	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210546.436	523712.2194	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1162	80	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210526.538	523719.8001	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1163	81	Pyramid Roof House-195 Second St.	Field Identified	Within Viewshed	Within APE	4210505.692	523726.907	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1164	82	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210463.053	523717.9061	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-1165	83	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210455.947	523706.5358	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1166	86	House in Ruins	Field Identified	Within Viewshed	Within APE	4210446.945	523690.4278	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1167	85	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210443.485	523674.7117	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1168	79	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210541.698	523678.5819	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1169	69	Pyramid Roof House	Field Identified	Within Viewshed	Within APE	4210516.588	523647.7874	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1170	68	Sidegabled House	Field Identified	Within Viewshed	Within APE	4210505.217	523610.8336	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1171	160	Former Bookkeepers House and Garage	Field Identified	Within Viewshed	Within APE	4210237.985	523571.4797	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1172	59	Store Mgr. House-Sidegable House	Field Identified	Within Viewshed	Within APE	4210153.978	523602.6983	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1173	395	395	Previously Identified	Within Viewshed	Within APE	4212099.586	525985.832	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1174	20	Bungalow	Field Identified	Within Viewshed	Within APE	4208750.807	524161.7936	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-1175	3	Bungalow	Field Identified	Within Viewshed	Within APE	4204875.435	529077.2786	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
GB-1176	5	Blue House	Field Identified	Within Viewshed	Within APE	4204769.68	529001.0192	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
NI-0002-0076	NI-0002-0076		Previously Identified	Within Viewshed	Within APE	4219192.088	528126.9787	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0002-0102	NI-0002-0102		Previously Identified	Within Viewshed	Within APE	4217565.864	523834.7274	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0192	NI-0026-0192		Previously Identified	Within Viewshed	Within APE	4218818.996	524683.2662	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0196	NI-0026-0196		Previously Identified	Within Viewshed	Within APE	4217746.971	525507.4832	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0198	NI-0026-0198		Previously Identified	Within Viewshed	Within APE	4217326.429	524296.5504	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0199	NI-0026-0199		Previously Identified	Within Viewshed	Within APE	4217639.962	523809.0029	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0200	NI-0026-0200		Previously Identified	Within Viewshed	Within APE	4217542.405	523800.1881	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0001	NI-0027-0001		Previously Identified	Within Viewshed	Within APE	4219089.949	528431.1139	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0002	NI-0027-0002		Previously Identified	Within Viewshed	Within APE	4219068.871	528626.0785	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0003	NI-0027-0003		Previously Identified	Within Viewshed	Within APE	4219259.892	529946.0417	A1	Nicholas	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0027-0004	NI-0027-0004		Previously Identified	Within Viewshed	Within APE	4220730.3	530609.7976	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0005	NI-0027-0005		Previously Identified	Within Viewshed	Within APE	4221255.586	530296.8944	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0006	NI-0027-0006		Previously Identified	Within Viewshed	Within APE	4223136.679	527506.2123	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0007	NI-0027-0007		Previously Identified	Within Viewshed	Within APE	4218207.232	527730.2075	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0009	NI-0027-0009		Previously Identified	Within Viewshed	Within APE	4218406.224	527977.953	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0010	NI-0027-0010		Previously Identified	Within Viewshed	Within APE	4218423.35	527925.2598	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0011	NI-0027-0011		Previously Identified	Within Viewshed	Within APE	4218605.001	528094.4459	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0012	NI-0027-0012		Previously Identified	Within Viewshed	Within APE	4218821.268	528311.4018	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0013	NI-0027-0013		Previously Identified	Within Viewshed	Within APE	4218881.802	528553.6255	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0015	NI-0027-0015		Previously Identified	Within Viewshed	Within APE	4220837.765	527691.2217	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0022	NI-0027-0022		Previously Identified	Within Viewshed	Within APE	4223971.029	527809.4366	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0024	NI-0027-0024		Previously Identified	Within Viewshed	Within APE	4223913.492	527609.5264	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0042	NI-0027-0042		Previously Identified	Within Viewshed	Within APE	4225027.875	532710.0427	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0051	NI-0027-0051		Previously Identified	Within Viewshed	Within APE	4217197.517	528281.5826	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0052	NI-0027-0052		Previously Identified	Within Viewshed	Within APE	4219030.667	528612.9052	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0090	190	One Story House 5419 CR 20	Field Identified	Within Viewshed	Within APE	4223531.054	527109.1987	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0091	213	Bungalow	Field Identified	Within Viewshed	Within APE	4222568.864	527072.7274	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0092	214	1950's Ranch	Field Identified	Within Viewshed	Within APE	4222436.522	527061.1978	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0093	217	6576 Rte 20 House with outbuildings	Field Identified	Within Viewshed	Within APE	4221739.612	527331.7026	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0094	220	7212 Rte 20	Field Identified	Within Viewshed	Within APE	4220835.183	527782.4401	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0095	171	T-Plan Dwelling	Field Identified	Within Viewshed	Within APE	4219745.188	525370.9222	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0096	183	954 CR17 Concrete Block House	Field Identified	Within Viewshed	Within APE	4217802.739	525451.69	A1	Nicholas	Quinwood (USGS 1972, PR 1981)

Appendix D. All Newly and Previously Identified Resources with Anticipated Views of the Undertaking

Resource Number	Field ID Number	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0097	223	backhouse	Field Identified	Within Viewshed	Within APE	4216889.669	526358.6893	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0098	224	frontgable house	Field Identified	Within Viewshed	Within APE	4216795.103	526297.6553	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0099	225	10798 Rte 20 Green Valley Missionary Baptist Church	Field Identified	Within Viewshed	Within APE	4216754.144	526300.3344	A1	Nicholas	Quinwood (USGS 1972, PR 1981)

APPENDIX E

**RESULTS OF INVESTIGATIONS AND NRHP ELIGIBILITY
RECOMMENDATIONS**

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
017	17		Orient Hill	Cemetery Road	Orient Hill Cemetery	Cemetery		c. 1934	Recommended Not Eligible		
394	GB-0046-0001	A3	Quinwood	Bell Boulevard at Byrne Avenue	Bank of Quinwood	Bank	Commercial	1927	Recommended Not Eligible		
393	GB-0046-0002	A3	Quinwood	Bell Boulevard, north of Byrne Avenue	Quinwood Commercial District	Commercial Building	Commercial	c.1920	Recommended Not Eligible		
	GB-0046-0003	A3	Quinwood	No Longer Extant					Recommended Not Eligible		
	GB-0136	A3, A4	Duo	Duo Road		Single Dwelling	Vernacular-Company Town	c. 1930	Recommended Not Eligible		
	GB-0137	A3, A4	Duo	Duo Road		Single Dwelling	Vernacular-Company Town	c. 1930	Recommended Not Eligible		
	GB-0139	A3, A4	Duo	Duo Road		Single Dwelling	Vernacular-Company Town	c. 1930	Recommended Not Eligible		
	GB-0140	A3, A4	Duo	Duo Road		Single Dwelling	Vernacular-Company Town	c. 1930	Recommended Not Eligible		
377	GB-1002	A3	Quinwood	County Route 44/1		Single Dwelling	Bungalow	c.1930	Recommended Not Eligible		
376	GB-1003	A3	Quinwood	County Route 44/1		Single Dwelling	Bungalow	c.1930	Recommended Not Eligible		
235	GB-1004	A3	Quinwood	Margarite Hill Road		Single Dwelling	Vernacular	c. 1949	Recommended Not Eligible		
234	GB-1005	A3	Quinwood	Margarite Hill Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
152	GB-1006	A3	Quinwood	1542 CR 2		Single Dwelling	Bungalow	c. 1930	Recommended Not Eligible		
151	GB-1007	A3	Quinwood	CR 2/Russellville Road		Single Dwelling	Bungalow	c. 1930	Recommended Not Eligible		
157	GB-1008	A3	Quinwood	CR 2/Russellville Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
374	GB-1009	A3	Quinwood	Little Page Drive		Single Dwelling	Vernacular	c.1940	Recommended Not Eligible		
378	GB-1010	A3	Quinwood	155 Bell Boulevard		Single Dwelling	Vernacular	c.1940	Recommended Not Eligible		
375	GB-1011	A3	Quinwood	Little Page Drive		Single Dwelling	Vernacular	c.1940	Recommended Not Eligible		
373	GB-1012	A3	Quinwood	Little Page Drive		Single Dwelling	One-story, side-gable	c.1950	Recommended Not Eligible		
422	GB-1013	A3	Quinwood	113 Second Street		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
380	GB-1014	A3	Quinwood	Third Avenue		Single Dwelling	One-story, side gable	c.1950	Recommended Not Eligible		
379	GB-1015	A3	Quinwood	Bell Boulevard		Single Dwelling	One-story, side gable	c.1940	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
420	GB-1016	A3	Quinwood	107 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
417	GB-1017	A3	Quinwood	117 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
416	GB-1018	A3	Quinwood	113 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
413	GB-1019	A3	Quinwood	143 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
411	GB-1020	A3	Quinwood	123 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
410	GB-1021	A3	Quinwood	129 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
423	GB-1022	A3	Quinwood	188 First Street		Single Dwelling	Bungalow	c.1930	Recommended Not Eligible		
421	GB-1023	A3	Quinwood	106 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
419	GB-1024	A3	Quinwood	110 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
418	GB-1025	A3	Quinwood	114 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
415	GB-1026	A3	Quinwood	142 First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
414	GB-1027	A3	Quinwood	First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
412	GB-1028	A3	Quinwood	First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
409	GB-1029	A3	Quinwood	First Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
389	GB-1030	A3	Quinwood	105 Jones Street		Single Dwelling	Bungalow	c.1940	Recommended Not Eligible		
388	GB-1031	A3	Quinwood	East Ammick Street		Apartment Building	Commercial	c.1920	Recommended Not Eligible		
370	GB-1032	A3	Quinwood	150 McClung Street		Single Dwelling	Vernacular	c.1950	Recommended Not Eligible		
369	GB-1033	A3	Quinwood	146 McClung Street		Single Dwelling	Vernacular	c.1950	Recommended Not Eligible		
367	GB-1034	A3	Quinwood	138 McClung Street		Single Dwelling	Vernacular	1922	Recommended Not Eligible		
366	GB-1035	A3	Quinwood	124 McClung Street		Single Dwelling	Bungalow	1920	Recommended Not Eligible		
365	GB-1036	A3	Quinwood	111 McClung Street	Quinwood Emergency Ambulance	Commercial	Vernacular	c. 1950	Recommended Not Eligible		
353	GB-1037	A3	Quinwood	337 Main Street		Single Dwelling	Vernacular	c. 1930	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
363	GB-1038	A3	Quinwood	119 Price Street		Single Dwelling	Vernacular	1928	Recommended Not Eligible		
364	GB-1039	A3	Quinwood	Rebecca Street		Single Dwelling	One-story, side-gable	1922	Recommended Not Eligible		
362	GB-1040	A3	Quinwood	109 Odell Street		Single Dwelling	Ranch	1960	Recommended Not Eligible		
345	GB-1041	A3	Quinwood	Main Street/ E. Amick Avenue	US Post Office	Commercial	Vernacular	c. 1940	Recommended Not Eligible		
368	GB-1042	A3	Quinwood	134 Ingram Street		Single Dwelling	Bungalow	c.1950	Recommended Not Eligible		
386	GB-1043	A3	Quinwood	East Ammick Street		Commercial	Commercial	c.1960	Recommended Not Eligible		
387	GB-1044	A3	Quinwood	100 Jones Street	Hill Top Restaurant	Commercial	Commercial	c.1920	Recommended Not Eligible		
390	GB-1045	A3	Quinwood	115 Second Street	First Baptist Church of Quinwood	Church	Vernacular	c.1920	Recommended Not Eligible		
400	GB-1046	A3	Quinwood	Jones Street		Single Dwelling	One-story, side gable	c.1930	Recommended Not Eligible		
401	GB-1047	A3	Quinwood	127 Jones Street		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
402	GB-1048	A3	Quinwood	Jones Street		Single Dwelling	Bungalow	c.1930	Recommended Not Eligible		
404	GB-1049	A3	Quinwood	146 Jones Street		Single Dwelling	One-story, side-gable	c.1940	Recommended Not Eligible		
403	GB-1050	A3	Quinwood	136 Jones Street		Single Dwelling	One-story, side-gable	c.1930	Recommended Not Eligible		
405	GB-1051	A3	Quinwood	First Street		Single Dwelling	Vernacular	c.1940	Recommended Not Eligible		
406	GB-1052	A3	Quinwood	Jones Street		Single Dwelling	One-story, side-gable	c.1940	Recommended Not Eligible		
408	GB-1053	A3	Quinwood	124 Imperial Street		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
407	GB-1054	A3	Quinwood	130 Imperial Street		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
347	GB-1055	A3		East Amick Avenue	Quinwood Rebekah Lodge No. 36	Commercial	Utilitarian	c. 1940	Recommended Not Eligible		
346	GB-1056	A3	Quinwood	116 East Amick Avenue	3rd Generation Restaurant	Commercial	Vernacular	c. 1940	Recommended Not Eligible		
348	GB-1057	A3	Quinwood	George Street		Single Dwelling	One-story, side-gable	1925	Recommended Not Eligible		
344	GB-1058	A3	Quinwood	Main Street/ W. Amick Avenue		Commercial	Utilitarian	c. 1940	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
352	GB-1059	A3	Quinwood	West Amick Avenue	Church of the True and Living God	Church	Vernacular	c. 1940	Recommended Not Eligible		
343	GB-1060	A3	Quinwood	250 Main Street	Gulf Station	Commercial	Utilitarian	c. 1940	Recommended Not Eligible		
340	GB-1061	A3	Quinwood	116 George Street		Single Dwelling	Bungalow	1930	Recommended Not Eligible		
351	GB-1062	A3	Quinwood	Quinwood		Single Dwelling	Pyramid Cottage	c. 1940	Recommended Not Eligible		
392	GB-1063	A3	Quinwood	134 Bell Boulevard		Commercial Building	Commercial	c.1960	Recommended Not Eligible		
349	GB-1064	A3	Quinwood	137 Church Street	Quinwood United Methodist Church	Church	Colonial Revival	1928	Recommended Not Eligible		
350	GB-1065	A3	Quinwood	146 Church Street		Single Dwelling	Bungalow	1929	Recommended Not Eligible		
341	GB-1066	A3	Quinwood	108 George Street		Single Dwelling	Vernacular	1930	Recommended Not Eligible		
342	GB-1067	A3	Quinwood	Main Street		Single Dwelling	Bungalow	1930	Recommended Not Eligible		
335	GB-1068	A3	Quinwood	227 Main Street	Brierwood Beauty Salon	Commercial	Commercial	1940	Recommended Not Eligible		
334	GB-1069	A3	Quinwood	Main Street		Single Dwelling	One-story, side-gable	1940	Recommended Not Eligible		
333	GB-1070	A3	Quinwood	191 Main Street		Single Dwelling	Bungalow	1940	Recommended Not Eligible		
336	GB-1071	A3	Quinwood	Main Street/ Linn Street		Single Dwelling	Bungalow	1938	Recommended Not Eligible		
337	GB-1072	A3	Quinwood	131 Linn Street		Single Dwelling	Vernacular	1930	Recommended Not Eligible		
395	GB-1073	A3	Quinwood	Belltown Road		Single Dwelling	Vernacular	c.1960	Recommended Not Eligible		
397	GB-1074	A3	Quinwood	Big Mountain Road		Single Dwelling	Vernacular	c.1940	Recommended Not Eligible		
267	GB-1075	A3	Quinwood	130 Wellman Street		Single Dwelling	Vernacular	1940	Recommended Not Eligible		
266	GB-1076	A3	Quinwood	110 Wellman Street		Single Dwelling	Bungalow	1940	Recommended Not Eligible		
268	GB-1077	A3	Quinwood	108 Dietz Street		Single Dwelling	One-story, side-gable	1920	Recommended Not Eligible		
271	GB-1078	A3	Quinwood	128 Dietz Street		Single Dwelling	Vernacular	1944	Recommended Not Eligible		
265	GB-1079	A3	Quinwood	152 Home Drive		Single Dwelling	Vernacular	1921	Recommended Not Eligible		

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Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
269	GB-1080	A3	Quinwood	165 Dietz Street		Single Dwelling	Bungalow	1936	Recommended Not Eligible		
270	GB-1081	A3	Quinwood	182 Dietz Street		Single Dwelling	Bungalow	1925	Recommended Not Eligible		
264	GB-1082	A3	Quinwood	129 Home Drive		Single Dwelling	Minimal Traditional	1930	Recommended Not Eligible		
274	GB-1083	A3	Quinwood	208 Home Drive		Single Dwelling	Bungalow	c. 1930	Recommended Not Eligible		
263	GB-1084	A3	Quinwood	Home Drive		Single Dwelling	Vernacular	c. 1940	Recommended Not Eligible		
272	GB-1085	A3	Quinwood	175 Home Drive		Single Dwelling	One-story, side-gable	1939	Recommended Not Eligible		
273	GB-1086	A3	Quinwood	188 Home Drive		Single Dwelling	Vernacular	1939	Recommended Not Eligible		
329	GB-1087	A3	Quinwood	167 Main Street		Single Dwelling	Vernacular	1930	Recommended Not Eligible		
326	GB-1088	A3	Quinwood	Main Street		Single Dwelling	Vernacular	1939	Recommended Not Eligible		
325	GB-1089	A3	Quinwood	112 Main Street		Single Dwelling	Vernacular	1936	Recommended Not Eligible		
332	GB-1090	A3	Quinwood	176 Main Street		Single Dwelling	Vernacular	1940	Recommended Not Eligible		
331	GB-1091	A3	Quinwood	168 Main Street		Single Dwelling	Vernacular	c. 1940	Recommended Not Eligible		
330	GB-1092	A3	Quinwood	Main Street		Single Dwelling	Vernacular	c. 1940	Recommended Not Eligible		
328	GB-1093	A3	Quinwood	111 Main Street		Single Dwelling	Vernacular	1930	Recommended Not Eligible		
327	GB-1094	A3	Quinwood	Quinwood		Single Dwelling	Vernacular	c. 1930	Recommended Not Eligible		
276	GB-1095	A3	Crichton	Leslie Hill Road		Culvert	n/a	c. 1950	Recommended Not Eligible		
279	GB-1096	A3	Crichton	166 Nancy Avenue		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
311	GB-1097	A3	Crichton	McClung Avenue		Single Dwelling	Bungalow	c.1920	Recommended Not Eligible		
312	GB-1098	A3	Crichton	McClung Avenue		Single Dwelling	One-story, side-gable	c.1920	Recommended Not Eligible		
310	GB-1099	A3	Crichton	McClung Avenue		Single Dwelling	One-story, side-gable	c.1935	Recommended Not Eligible		
309	GB-1100	A3	Crichton	McClung Avenue		Single Dwelling	One-story, side-gable	c.1935	Recommended Not Eligible		
308	GB-1101	A3	Crichton	McClung Avenue		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
323	GB-1102	A3	Crichton	First Street		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
316	GB-1103	A3	Crichton	Overgrown Road		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
307	GB-1104	A3	Crichton	Overgrown Road		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
322	GB-1105	A3	Crichton	Crichton Street		Single Dwelling	One-story, side-gable	c.1920	Recommended Not Eligible		
321	GB-1106	A3	Crichton	Crichton Street		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
320	GB-1107	A3	Crichton	First Street		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
317	GB-1108	A3	Crichton	Sue Avenue		Single Dwelling	One-story, side-gable	c.1920	Recommended Not Eligible		
318	GB-1109	A3	Crichton	Sue Avenue		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
319	GB-1110	A3	Crichton	First Street		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
305	GB-1111	A3	Crichton	McClung Avenue		Single Dwelling	Ranch	c.1950	Recommended Not Eligible		
304	GB-1112	A3	Crichton	McClung Avenue		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
295	GB-1113	A3	Crichton	47 McClung Avenue		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
294	GB-1114	A3	Crichton	325 McClung Avenue		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
293	GB-1115	A3	Crichton	McClung Avenue		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
292	GB-1116	A3	Crichton	44 McClung Avenue		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
291	GB-1117	A3	Crichton	43 McClung Avenue		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
290	GB-1118	A3	Crichton	225 McClung Avenue		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
277	GB-1119	A3	Crichton	158 School Street	Crichton United Methodist Church	Church	Vernacular	c. 1930	Recommended Not Eligible		
296	GB-1120	A3	Crichton	52 Crichton Street		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
297	GB-1121	A3	Crichton	53 Crichton Street		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
298	GB-1122	A3	Crichton	54 Crichton Street		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
299	GB-1123	A3	Crichton	55 Crichton Street		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
300	GB-1124	A3	Crichton	56 Crichton Street		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
301	GB-1125	A3	Crichton	57 Crichton Street		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
302	GB-1126	A3	Crichton	58 Crichton Street		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
303	GB-1127	A3	Crichton	59 Crichton Street		Single Dwelling	One-story, side-gable	c.1925	Recommended Not Eligible		
324	GB-1128	A3	Crichton	School Street	Crichton Elementary School	School	Vernacular	1923	Recommended Not Eligible		
259	GB-1129	A3	Quinwood	131 Hardwood Drive		Single Dwelling	One-story, side-gable	c.1930	Recommended Not Eligible		
260	GB-1130	A3	Quinwood	Mill Creek Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
262	GB-1131	A3	Quinwood	7573 Mill Creek Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
257	GB-1132	A3	Quinwood	Marfrance Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
236	GB-1133	A3	Marfrance	Marfrance Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
237	GB-1134	A3	Marfrance	880 Marfrance Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
238	GB-1135	A3	Marfrance	868 County Route 2/7		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
239	GB-1136	A3	Marfrance	866 Marfrance Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
240	GB-1137	A3	Marfrance	Marfrance Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
241	GB-1138	A3	Marfrance	County Route 2/7		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
242	GB-1139	A3	Marfrance	810 County Route 2/7		Single Dwelling	Vernacular	c.1925	Recommended Not Eligible		
243	GB-1140	A3	Marfrance	Marfrance Road		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
244	GB-1141	A3	Marfrance	Marfrance Road		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
247	GB-1142	A3	Marfrance	Fairdale Road		Single Dwelling	Vernacular	c.1920	Recommended Not Eligible		
248	GB-1143	A3	Marfrance	Fairdale Road		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
135	GB-1144	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
129	GB-1145	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
130	GB-1146	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
133	GB-1147	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
125	GB-1148	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
126	GB-1149	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
127	GB-1150	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
128	GB-1151	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
132	GB-1152	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
131	GB-1153	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
124	GB-1154	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
122	GB-1155	A3	Leslie	Slate Dump Road		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
013	GB-1156	A3	Orient Hill	CR 2		Single Dwelling	Vernacular	c. 1930	Recommended Not Eligible		
066	GB-1157	A3	Bellburn	27 First Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
077	GB-1158	A3	Bellburn	39 Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
075	GB-1159	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
076	GB-1160	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
078	GB-1161	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
080	GB-1162	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
081	GB-1163	A3	Bellburn	195 Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
082	GB-1164	A3	Bellburn	Bellburn		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
083	GB-1165	A3	Bellburn	Bellburn		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
086	GB-1166	A3	Bellburn	Bellburn		Ruins		c. 1925	Recommended Not Eligible		
085	GB-1167	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
079	GB-1168	A3	Bellburn	Second Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		
069	GB-1169	A3	Bellburn	First Street		Single Dwelling	Pyramid Cottage	c. 1925	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
068	GB-1170	A3	Bellburn	First Street		Single Dwelling	One-story, side-gable	c. 1925	Recommended Not Eligible		
160	GB-1171	A3	Bellburn	Bellburn Road		Single Dwelling	One-story, side-gable	c. 1925	Recommended Not Eligible		
059	GB-1172	A3	Bellburn	3 Bellburn Road		Single Dwelling	One-story, side-gable	c. 1925	Recommended Not Eligible		
017	GB-1173	A3	Quinwood	Bell Boulevard		Single Dwelling	Vernacular	c.1930	Recommended Not Eligible		
020	GB-1174	A3	Orient Hill	156 Coalfield Trail		Single Dwelling	Bungalow	c.1948	Recommended Not Eligible		
003	GB-1175	A3	Rupert	CR 1		Single Dwelling	Bungalow	c. 1920	Recommended Not Eligible		
005	GB-1176	A3	Rupert	CR 1		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		
	NI-0026-0192	A1	Hominy Falls	CR 17	Mount Urim Baptist Church and Cemetery	Church and associated cemetery	Vernacular	1885	Recommended Eligible	A, C	Criteria Consideration A (Religious Properties); Criteria Consideration D (Cemeteries)
	NI-0026-0196	A1	Hominy Falls	CR 17	O'Dell House	Single Dwelling	Vernacular	1934	Recommended Not Eligible		
	NI-0026-0198	A1	Snow Hill	2311 CR 17/Old Nicholas Road	Ballard House/O'Dell House	Single Dwelling	Vernacular	1875	Recommended Not Eligible		
	NI-0026-0199	A1	Snow Hill	CR 17	Hilltop Methodist Church	Church	Vernacular	1954	Recommended Not Eligible		
	NI-0026-0200	A1	Snow Hill	CR 17	Lipps House	Single Dwelling	Bungalow	c. 1930	Recommended Not Eligible		
	NI-0027-0002	A1		No longer extant							
	NI-0027-0004	A1		No longer extant							
	NI-0027-0006	A1	Leivasy	White Buck Knob Road	Stein House	Single Dwelling	Vernacular	c. 1900/1940	Recommended Not Eligible		
	NI-0027-0015	A1	Leivasy	7114 Route 20	Stroup House	Single Dwelling	Vernacular	1945	Recommended Not Eligible		
	NI-0027-0022	A1	Leivasy	O'Dell Road/ CR 44-8	Swartz House/O'Dell House	Single Dwelling	Midland Log	1870	Recommended Not Eligible		
	NI-0027-0024	A1	Leivasy	O'Dell Road/ CR 44-8	O'Dell HomePlace	Single Dwelling	Vernacular	1938	Recommended Not Eligible		
	NI-0027-0051	A1		Form missing at SHPO							
190	NI-0090	A1	Leivasy	5419 Route 20		Single Dwelling	Vernacular	c. 1950	Recommended Not Eligible		

Appendix E. Results of Investigations and NRHP Eligibility Recommendations

Field Number	WVDCH Number	Figure No.	Community	Address/Location	Name	Resource Type	Style	Date of Construction	NRHP Eligibility Recommendation	NRHP Criteria	NRHP Criteria Consideration
213	NI-0091	A1	Leivasy	Route 20		Single Dwelling	Bungalow	c.1930	Recommended Not Eligible		
214	NI-0092	A1	Leivasy	Route 20		Single Dwelling	Ranch	c. 1950	Recommended Not Eligible		
217	NI-0093	A1	Leivasy	6576 Route 20		Single Dwelling	Vernacular	c. 1940	Recommended Not Eligible		
220	NI-0094	A1	Leivasy	7212 Route 20		Single Dwelling	Vernacular	c. 1940	Recommended Not Eligible		
171	NI-0095	A1	Leivasy	Coggins Knob Road & Whitetail Road		Single Dwelling	Vernacular	c. 1910	Recommended Not Eligible		
183	NI-0096	A1	Hominy Falls	954 CR 17		Single Dwelling	Vernacular	c. 1920	Recommended Not Eligible		
223	NI-0097	A1	Green Valley	16742 Route 20		Single Dwelling	Minimal Traditional	c. 1950	Recommended Not Eligible		
224	NI-0098	A1	Green Valley	10788 Route 20		Single Dwelling	Vernacular	c. 1930	Recommended Not Eligible		
225	NI-0099	A1	Green Valley	10798 Route 20		Single Dwelling	Bungalow	c. 1930	Recommended Not Eligible		

APPENDIX F

**ALL NEWLY AND PREVIOUSLY INVENTORIED RESOURCES
NOT DOCUMENTED WITH HPI FORMS**

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-0001	GB-0001		Previously Identified		Within APE	4213780.72	534716.585	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0034	GB-0034		Previously Identified		Within APE	4205251.08	527873.772	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
GB-0051	GB-0051		Previously Identified		Within APE	4211274.98	524566.498	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0114	GB-0114		Previously Identified		Within APE	4218580.81	545121.42	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0120	GB-0120		Previously Identified	Within Viewshed	Within APE	4218607.78	545101.926	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0124	GB-0124		Previously Identified	Within Viewshed	Within APE	4218635.04	545079.608	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0125	GB-0125		Previously Identified	Within Viewshed	Within APE	4219126.8	534600.127	A1, A2	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0126	GB-0126		Previously Identified	Within Viewshed	Within APE	4219449.58	533334.754	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0127	GB-0127		Previously Identified	Within Viewshed	Within APE	4220083.28	532819.052	A1	Greenbrier	Nettie (USGS 1972, PR 1979)
GB-0128	GB-0128		Previously Identified	Within Viewshed	Within APE	4219596.33	533357.167	A1	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0129	GB-0129		Previously Identified	Within Viewshed	Within APE	4221030.69	533931.376	A1, A2	Greenbrier	Richwood (USGS 1972, PR 1981)
GB-0130	GB-0130		Previously Identified		Within APE	4208154.41	532254.54	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0131	GB-0131		Previously Identified		Within APE	4208339.25	532293.865	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0132	GB-0132		Previously Identified	Within Viewshed	Within APE	4213410.35	534809.183	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0133	GB-0133		Previously Identified		Within APE	4213949.04	535196.313	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0134	GB-0134		Previously Identified	Within Viewshed	Within APE	4213906.64	535200.163	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0135	GB-0135		Previously Identified	Within Viewshed	Within APE	4213895.72	535237.141	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0138	GB-0138		Previously Identified	Within Viewshed	Within APE	4213863.64	535197.583	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0141	GB-0141		Previously Identified	Within Viewshed	Within APE	4213844.9	535236.916	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0142	GB-0142		Previously Identified	Within Viewshed	Within APE	4213823.22	535195.863	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
GB-0143	GB-0143		Previously Identified	Within Viewshed	Within APE	4213821.41	535229.926	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0144	GB-0144		Previously Identified		Within APE	4213819.96	535282.083	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0145	GB-0145		Previously Identified	Within Viewshed	Within APE	4213837.65	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0146	GB-0146		Previously Identified	Within Viewshed	Within APE	4213853.99	535278.498	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0147	GB-0147		Previously Identified	Within Viewshed	Within APE	4213874.72	535292.012	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0148	GB-0148		Previously Identified	Within Viewshed	Within APE	4213864.54	535320.556	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0149	GB-0149		Previously Identified	Within Viewshed	Within APE	4213841.32	535318.836	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0150	GB-0150		Previously Identified		Within APE	4213822.4	535317.976	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0151	GB-0151		Previously Identified	Within Viewshed	Within APE	4213833.31	535368.303	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0152	GB-0152		Previously Identified	Within Viewshed	Within APE	4213842.71	535443.038	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
GB-0184	GB-0184		Previously Identified		Within APE	4225018.6	542811.537	A2	Greenbrier	Richwood (USGS 1972, PR 1981)
GB-0185	GB-0185		Previously Identified	Within Viewshed	Within APE	4218753.69	544942.502	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0192	GB-0192		Previously Identified	Within Viewshed	Within APE	4218711.89	545006.959	A2	Greenbrier	Trout (USGS 1977, PR1981)
GB-0201	GB-0201		Previously Identified		Within APE	4209752.64	532742.484	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
GB-0206	GB-0206		Previously Identified		Within APE	4226244.87	538822.195	A2	Nicholas	Richwood (USGS 1972, PR 1981)
GB-0442	GB-0442		Previously Identified	Within Viewshed	Within APE	4208350.84	533909.42	A3, A4	Greenbrier	Duo (USGS 1972, PR 1981)
NI-0002-0150	NI-0002-0150		Previously Identified		Within APE	4219112.26	528703.037	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0193	NI-0026-0193		Previously Identified		Within APE	4218251.34	524943.922	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0194	NI-0026-0194		Previously Identified		Within APE	4217739.38	525166.145	A1	Nicholas	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0026-0195	NI-0026-0195		Previously Identified		Within APE	4217880.11	525208.705	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0026-0197	NI-0026-0197		Previously Identified		Within APE	4217987.33	524656.348	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0001	NI-0027-0001		Previously Identified	Within Viewshed	Within APE	4219089.95	528431.114	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0003	NI-0027-0003		Previously Identified	Within Viewshed	Within APE	4219259.89	529946.042	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0005	NI-0027-0005		Previously Identified	Within Viewshed	Within APE	4221255.59	530296.894	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0007	NI-0027-0007		Previously Identified	Within Viewshed	Within APE	4218207.23	527730.207	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0008	NI-0027-0008		Previously Identified		Within APE	4218252.09	527678.919	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0009	NI-0027-0009		Previously Identified	Within Viewshed	Within APE	4218406.22	527977.953	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0010	NI-0027-0010		Previously Identified	Within Viewshed	Within APE	4218423.35	527925.26	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0011	NI-0027-0011		Previously Identified	Within Viewshed	Within APE	4218605	528094.446	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0012	NI-0027-0012		Previously Identified	Within Viewshed	Within APE	4218821.27	528311.402	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0013	NI-0027-0013		Previously Identified	Within Viewshed	Within APE	4218881.8	528553.625	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0014	NI-0027-0014		Previously Identified		Within APE	4219461.45	528865.832	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0016	NI-0027-0016		Previously Identified		Within APE	4223412.1	527079.074	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0017	NI-0027-0017		Previously Identified		Within APE	4223411.27	527111.055	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0021	NI-0027-0021		Previously Identified		Within APE	4223685.69	527274.318	A1	Nicholas	Nettie (USGS 1972, PR 1979)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
NI-0027-0042	NI-0027-0042		Previously Identified	Within Viewshed	Within APE	4225027.88	532710.043	A1	Nicholas	Nettie (USGS 1972, PR 1979)
NI-0027-0049	NI-0027-0049		Previously Identified		Within APE	4217876.74	528385.669	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0050	NI-0027-0050		Previously Identified		Within APE	4217787.21	528279.285	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0052	NI-0027-0052		Previously Identified	Within Viewshed	Within APE	4219030.67	528612.905	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
NI-0027-0053	NI-0027-0053		Previously Identified		Within APE	4223587.32	527147.876	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	007	Ranch House	Field Identified		Within APE	4204348.68	529179.496	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	006	Two-Story Side-gabled Farmhouse with Outbuildings	Field Identified		Within APE	4204411.24	529236.337	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	004		Field Identified		Within APE	4204705.62	529174.912	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	008	Abandoned House	Field Identified		Within APE	4204943.86	528147.014	A3	Greenbrier	Rupert (USGS 1972, PR 1981)
	014	Former Farmstead	Field Identified		Within APE	4205881.53	526183.735	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	009	House next to trailer Co. Hwy 6	Field Identified		Within APE	4207541.8	528150.018	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	002	RR Overpass	Field Identified		Within APE	4207880.68	530186.973	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	001	Culvert	Field Identified		Within APE	4207896.61	530185.524	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	010	Front-gabled House	Field Identified		Within APE	4208007.24	528040.616	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	011	Mt Zion Church and Cemetery	Field Identified		Within APE	4208455.94	528149.858	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	039		Field Identified		Within APE	4208725.83	524503.936	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	040	Front-gabled Bungalow	Field Identified		Within APE	4208734.43	524576.813	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	015	Orient Hill Baptist Church	Field Identified		Within APE	4208746.27	524082.061	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	038	Ranch	Field Identified		Within APE	4208752.04	524457.173	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	016	Front-gabled House	Field Identified		Within APE	4208776.33	524027.808	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	036	Concrete Block House	Field Identified		Within APE	4208777.55	524422.557	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	019	Bungalow	Field Identified		Within APE	4208797.58	524143.803	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	037	Bungalow	Field Identified		Within APE	4208797.59	524465.068	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	018	Bungalow	Field Identified		Within APE	4208823.09	524138.944	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	041	Bungalow with porch and 3 buildings	Field Identified		Within APE	4208838.28	524530.049	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	021	Community Building-Auto Repair Service	Field Identified		Within APE	4208853.45	524106.149	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	035	Front-gabled Bungalow	Field Identified		Within APE	4208864.39	524279.231	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	022	Bungalow	Field Identified		Within APE	4208878.35	524149.875	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	033	Bungalow-Enclosed Porch Settlement Dr	Field Identified		Within APE	4208884.43	524253.724	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	034	245 Settlement Drive	Field Identified		Within APE	4208909.94	524286.518	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	023	Bungalow	Field Identified		Within APE	4208911.76	524121.938	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	024	Front-gabled House	Field Identified		Within APE	4208915.4	524174.774	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	029	Altered Bungalow	Field Identified		Within APE	4208932.4	524083.07	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	042	Side-gabled House	Field Identified		Within APE	4208944.56	524577.417	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	025	Bungalow-Enclosed Front Porch	Field Identified		Within APE	4208948.8	524165.663	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	030	Orient Hill Freewill Baptist Church	Field Identified		Within APE	4208952.44	524073.353	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	026	Side-gabled House	Field Identified		Within APE	4208959.13	524192.385	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	031	Front-gabled Bungalow	Field Identified		Within APE	4208996.78	524057.562	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	032	Gabled House	Field Identified		Within APE	4209013.17	524048.452	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	027	1950s Ranch	Field Identified		Within APE	4209013.18	524160.804	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	045	652 Miller Street	Field Identified		Within APE	4209013.79	524622.356	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	046	Gambrel-roofed Bungalow	Field Identified		Within APE	4209014.39	524257.365	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	043	T-Plan House (abandoned with garage)	Field Identified		Within APE	4209034.44	524588.347	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	044	1950's Ranch	Field Identified		Within APE	4209056.3	524606.565	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	028	T-Plan House	Field Identified		Within APE	4209084.84	524179.629	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	047	Side-gabled House	Field Identified		Within APE	4209121.8	524042.681	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	012	Farmstead 5732 Big Mountain Rd/ Co. Hwy 6	Field Identified		Within APE	4209174.03	527924.086	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	048	Front-gabled House	Field Identified		Within APE	4209239.32	524060.898	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	050	Side-gabled House	Field Identified		Within APE	4209414.14	523988.019	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	052	Front-gabled House	Field Identified		Within APE	4209628.79	523963.115	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	049	T-Plan House	Field Identified		Within APE	4209648.22	523934.572	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	051	Side-gabled House	Field Identified		Within APE	4209673.12	523981.941	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	053	Ranch House	Field Identified		Within APE	4209680.4	523862.302	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	055	Front-gabled House	Field Identified		Within APE	4209693.77	523991.05	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	054	Ranch House	Field Identified		Within APE	4209722.92	523884.771	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	056	Side-gabled House with rear garage	Field Identified		Within APE	4209814.8	524095.889	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	057	Side-gabled House 687 Ball Diamond Rd	Field Identified		Within APE	4209938.35	523999.789	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	058	Gambrel-roofed Bungalow with alterations-garage, shed, all with stacked stone foundations	Field Identified		Within APE	4210093.94	524018.091	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	060	Side-gabled House-Foreman's House	Field Identified		Within APE	4210171.13	523576.067	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	061	Bellburn United Methodist Church	Field Identified		Within APE	4210199.09	523640.969	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	062	Culvert over Stream	Field Identified		Within APE	4210238.48	523589.685	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	064	Former Boarding House	Field Identified		Within APE	4210273.54	523554.843	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	063	Bungalow-Superintendent's House w/Garage	Field Identified		Within APE	4210279.94	523600.54	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	065	Pyramid Roof House-lower Bellburn rd.	Field Identified		Within APE	4210347.61	523550.424	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	087	Rome Baptist Church	Field Identified		Within APE	4210443.29	524071.483	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	084	Pyramid Roof House	Field Identified		Within APE	4210458.31	523625.521	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	067	Pyramid Roof House	Field Identified		Within APE	4210505.22	523570.563	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	088	Bungalow	Field Identified		Within APE	4210508.39	524095.34	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	089	Bungalow	Field Identified		Within APE	4210520.18	524054.936	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	091	Min Trad	Field Identified		Within APE	4210549.04	524131.894	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	090	Bungalow	Field Identified		Within APE	4210554.81	524086.681	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	093	Min Trad	Field Identified		Within APE	4210573.57	524157.867	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	092		Field Identified		Within APE	4210595.69	524121.793	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	118	Bungalow	Field Identified		Within APE	4210603.39	524052.53	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	095	Min Trad	Field Identified		Within APE	4210605.31	524188.65	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	073	Pyramid Roof House	Field Identified		Within APE	4210616.55	523683.318	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	074	Pyramid Roof House	Field Identified		Within APE	4210620.82	523646.364	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	096	Faith Mission Apostolic Church	Field Identified		Within APE	4210621.67	524195.384	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	094		Field Identified		Within APE	4210627.44	524152.095	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	097	Bungalow	Field Identified		Within APE	4210638.02	524213.18	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	117		Field Identified		Within APE	4210647.16	524093.413	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	070	609 Bellburn Rd- Pyramid Roof House	Field Identified		Within APE	4210651.14	523612.252	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	098	Bungalow	Field Identified		Within APE	4210656.3	524227.129	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	071	Pyramid Roof House	Field Identified		Within APE	4210661.56	523649.206	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	072	Two-story house	Field Identified		Within APE	4210669.61	523670.052	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	099	Bungalow	Field Identified		Within APE	4210671.69	524241.077	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	116		Field Identified		Within APE	4210681.31	524121.791	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	115a		Field Identified		Within APE	4210698.14	524134.778	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	100	Bungalow	Field Identified		Within APE	4210702.95	524217.508	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	102	Bungaloid	Field Identified		Within APE	4210718.83	524282.923	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	101	Bungalow	Field Identified		Within APE	4210733.26	524241.076	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	104	Bungaloid	Field Identified		Within APE	4210733.74	524292.542	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	105	Min. Trade 3494 Rte 20	Field Identified		Within APE	4210749.61	524308.414	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	103	Min Trad	Field Identified		Within APE	4210753.46	524258.872	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	106	Former Grocery	Field Identified		Within APE	4210782.8	524340.159	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	109	Former 1st Black School	Field Identified		Within APE	4210801.56	524358.918	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	108		Field Identified		Within APE	4210803	524298.794	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	107		Field Identified		Within APE	4210820.32	524311.299	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	110		Field Identified		Within APE	4210839.56	524319.957	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	123		Field Identified		Within APE	4210865.77	524477.561	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	111		Field Identified		Within APE	4210866.97	524328.133	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	119		Field Identified		Within APE	4210869.62	524513.475	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	134	Greenbrier Co PSD Number 2 Water House	Field Identified		Within APE	4210875.63	524564.299	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	112		Field Identified		Within APE	4210884.29	524339.196	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	120		Field Identified		Within APE	4210888.22	524524.377	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	113		Field Identified		Within APE	4210903.53	524344.005	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	121	355 Slate Dump Rd	Field Identified		Within APE	4210906.18	524534.638	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	114		Field Identified		Within APE	4210923.25	524344.486	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	115	Post Office	Field Identified		Within APE	4210950.18	524352.181	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	136	Abandoned house and garage	Field Identified		Within APE	4211162.69	524474.422	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	137	143 Leslie Subdivision Rd-2 Story House	Field Identified		Within APE	4211217.6	524450.397	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	139		Field Identified		Within APE	4211227.9	524615.136	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	146		Field Identified		Within APE	4211346.33	524474.155	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	147		Field Identified		Within APE	4211365.44	524469.149	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	140		Field Identified		Within APE	4211405.98	524611.246	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	148	233 Leslie Bench Rd	Field Identified		Within APE	4211406.4	524460.047	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	141		Field Identified		Within APE	4211432.52	524597.975	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	149		Field Identified		Within APE	4211439.16	524459.137	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	142		Field Identified		Within APE	4211439.8	524558.315	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	143		Field Identified		Within APE	4211463.69	524560.969	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	150		Field Identified		Within APE	4211463.74	524459.591	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	144		Field Identified		Within APE	4211499.02	524597.442	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	145		Field Identified		Within APE	4211579.1	524580.606	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	261	Yellow Bungalow	Field Identified		Within APE	4211662.71	526506.626	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	222	Waterplant-Greenbrier County	Field Identified		Within APE	4211678.29	524475.575	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	221	Culvert near waterplant	Field Identified		Within APE	4211710.14	524496.808	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	258	Stone Block House	Field Identified		Within APE	4211756.45	526561.275	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	256		Field Identified		Within APE	4211814.42	526995.585	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	255		Field Identified		Within APE	4211838.36	527010.071	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	254	639 Marfrance Rd	Field Identified		Within APE	4211881.19	527028.965	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	275		Field Identified		Within APE	4211885.49	526019.174	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	253		Field Identified		Within APE	4211895.04	527035.893	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	250		Field Identified		Within APE	4211924.49	527137.848	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	252	659 Marfrance Rd	Field Identified		Within APE	4211924.64	527046.6	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	251	673 Marfrance Rd	Field Identified		Within APE	4211953.62	527056.047	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	249		Field Identified		Within APE	4211967	527096.75	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	245		Field Identified		Within APE	4212027.94	527124.698	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	396		Field Identified		Within APE	4212038.68	526131.364	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	246	120 Fairview Rd	Field Identified		Within APE	4212055.02	527132.886	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	289		Field Identified		Within APE	4212064.47	525128.563	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	306		Field Identified		Within APE	4212065.7	524941.081	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	288		Field Identified		Within APE	4212068.28	525101.896	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	285		Field Identified		Within APE	4212071	525054.005	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	286		Field Identified		Within APE	4212072.09	525069.787	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	287		Field Identified		Within APE	4212072.09	525087.202	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	338		Field Identified		Within APE	4212073.36	525736.195	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	315		Field Identified		Within APE	4212075.36	525025.162	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	314		Field Identified		Within APE	4212076.99	525009.924	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	313		Field Identified		Within APE	4212078.62	524993.597	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	339		Field Identified		Within APE	4212105.43	525758.641	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	280	163 Nancy	Field Identified		Within APE	4212110.73	525104.616	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	278	161 Nancy	Field Identified		Within APE	4212111.28	525121.487	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	284		Field Identified		Within APE	4212119.44	525058.358	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	281	167 Nancy	Field Identified		Within APE	4212139.03	525094.82	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	282	168 Nancy	Field Identified		Within APE	4212139.57	525079.582	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	283		Field Identified		Within APE	4212143.38	525061.079	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	399		Field Identified		Within APE	4212153.8	526018.244	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	391		Field Identified		Within APE	4212225.42	525969.691	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	156	230 Cambell Rd 1950s house	Field Identified		Within APE	4212255.91	523563.951	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	371		Field Identified		Within APE	4212348.23	525705.625	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	372		Field Identified		Within APE	4212364.59	525686.866	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	354		Field Identified		Within APE	4212372.61	525666.286	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	424		Field Identified		Within APE	4212380.51	526209.803	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	355	340 Rt 20	Field Identified		Within APE	4212400.59	525649.772	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	425		Field Identified		Within APE	4212404.56	526206.435	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	356	346 Rt 20	Field Identified		Within APE	4212414.7	525640.793	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	155	1709 Russellville Rd Front-gabled House	Field Identified		Within APE	4212463.31	523678.841	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	357		Field Identified		Within APE	4212485.89	525629.889	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	158	Chestnut Grove Baptist Church	Field Identified		Within APE	4212503.01	522997.653	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	159	Cemetery-Approx 30 marked graves earliest 1922	Field Identified		Within APE	4212512.4	522902.642	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	358	3 Buildings	Field Identified		Within APE	4212518.83	525631.652	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	359		Field Identified		Within APE	4212539.52	525633.576	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	153	Bungalow with log outbuilding	Field Identified		Within APE	4212567.05	524042.608	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	360		Field Identified		Within APE	4212568.38	525635.499	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	154	Advent Christian Church	Field Identified		Within APE	4212578.53	523817.919	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	361		Field Identified		Within APE	4212586.65	525645.119	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	381	Bungalow 464	Field Identified		Within APE	4212612.15	525642.714	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	385		Field Identified		Within APE	4212881.73	525507.361	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	382	Rte 20 Bungalow	Field Identified		Within APE	4212898.59	525615.083	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	384		Field Identified		Within APE	4212905.91	525506.234	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	383		Field Identified		Within APE	4212954.72	525613.253	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	233	Roverpass	Field Identified		Within APE	4213255.43	525595.56	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	232	5941 Rte 20	Field Identified		Within APE	4213940.25	525675.229	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	231	Front-gable House	Field Identified		Within APE	4214054.91	525670.415	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	230	Red Side-gabled house	Field Identified		Within APE	4214116.41	525654.371	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	229	Side-gabled House with additions	Field Identified		Within APE	4214209.99	525624.957	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	227	1950s Min Trad	Field Identified		Within APE	4214335.67	525603.563	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	228	Bungalow	Field Identified		Within APE	4214434.6	525654.366	A3	Greenbrier	Quinwood (USGS 1972, PR 1981)
	226	Frame house with decorative trim	Field Identified		Within APE	4215656.51	525722.329	A1, A3	Nicholas	Quinwood (USGS 1972, PR 1981)
	173	Two-Story Side-gable	Field Identified		Within APE	4219318.35	526264.724	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
	172	Small House with Extensions	Field Identified		Within APE	4219519	526064.074	A1	Nicholas	Quinwood (USGS 1972, PR 1981)
	185	1017 CR44-5 Farmhouse	Field Identified		Within APE	4220549.5	526219.526	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	186	1024 CR445 Ranch	Field Identified		Within APE	4220734.31	526090.19	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	216	House in ruins	Field Identified		Within APE	4221777.36	527367.739	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	215	6520 Rte 20	Field Identified		Within APE	4221840.29	527299.336	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	165	Concrete Block House Homing Falls Rd	Field Identified		Within APE	4221948.97	525411.266	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	210	Min Trade	Field Identified		Within APE	4222593.39	527210.773	A1	Nicholas	Nettie (USGS 1972, PR 1979)

Appendix F. All Newly and Previously Identified Resources Not Documented with HPI Forms

ResNum	Field ID	Name/Address/Type	Source	Viewshed	APE	Northing NAD 83	Easting NAD 83	Figure	County	Quad Name/Date
	212	6004 Rte 20	Field Identified		Within APE	4222662.71	527126.865	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	211	1.5 Story Building	Field Identified		Within APE	4222867.01	527207.196	A1	Nicholas	Nettie (USGS 1972, PR 1979)
	187	Mintrad House	Field Identified		Within APE	4223347.64	527127.943	A1	Nicholas	Nettie (USGS 1972, PR 1979)

APPENDIX G

WVDCH HISTORIC PROPERTY INVENTORY FORMS

The completed West Virginia Historic Property Inventory Forms and photographs are located in separate folders on the report CD.

The completed West Virginia Historic Property Inventory Forms associated with this project are included separately from the bound report.

APPENDIX H
PHOTO LOGS

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
00017	cemetery	off of Route 20	Orient Hill Cemetery	E
00017	cemetery	off of Route 20	Orient Hill Cemetery	W
00175	cemetery	CR 17	Mount Urim Baptist Church	S
00175	cemetery	CR 17	Mount Urim Baptist Church	N
GB-0046-0001_1.jpg	GB-0046-0001	Bell Boulevard	Bank of Quinwood	NE
GB-0046-0001_2.jpg	GB-0046-0001	Bell Boulevard	Bank of Quinwood	SE
GB-0046-0002.jpg	GB-0046-0002	Bell Boulevard	Quinwood Commercial Building	NE
GB-0136.jpg	GB-136	Duo Road		NE
GB-0137.jpg	GB-0137	Duo Road		NW
GB-0139.jpg	GB-0139	Duo Road		SW
GB-0140.jpg	GB-0140	Duo Road		NE
GB-1002.jpg	GB-1002	Peaces Knob Road		SW
GB-1003.jpg	GB-1003	Peaces Knob Road		NW
GB-1004.jpg	GB-1004	Margarite Hill Road		SW
GB-1005.jpg	GB-1005	Margarite Hill Road		SE
GB-1006.jpg	GB-1006	1542 CR 2-Russellville Road		SW
GB-1007.jpg	GB-1007	CR 2-Russellville Road		SW
GB-1008_1.jpg	GB-1008	CR 2-Russellville Road		SW
GB-1008_2.jpg	GB-1008	CR 2-Russellville Road		SE
GB-1009.jpg	GB-1009	209 Little Page Street		SW
GB-1010.jpg	GB-1010	Little Page Street		NE
GB-1011.jpg	GB-1011	Little Page Street		NE
GB-1012.jpg	GB-1012	Little Page Street		SE
GB-1013.jpg	GB-1013	Second Street		SE
GB-1014.jpg	GB-1014	McLung Ave		SW
GB-1015.jpg	GB-1015	McLung Ave		SE
GB-1016.jpg	GB-1016	First Street		SE
GB-1017.jpg	GB-1017	First Street		SE
GB-1018.jpg	GB-1018	First Street		SE
GB-1019.jpg	GB-1019	First Street		SE
GB-1020.jpg	GB-1020	First Street		SE
GB-1021.jpg	GB-1021	First Street		SE
GB-1022.jpg	GB-1022	First Ave		SW
GB-1023.jpg	GB-1023	First Street		N
GB-1024.jpg	GB-1024	First Street		N
GB-1025.jpg	GB-1025	First Street		N
GB-1026.jpg	GB-1026	First Street		N
GB-1027.jpg	GB-1027	First Street		N
GB-1028.jpg	GB-1028	First Street		N
GB-1029_1.jpg	GB-1029	First Street		NW
GB-1029_2.jpg	GB-1029	First Street		SE
GB-1030.jpg	GB-1030	105 Jones Street		SE

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
GB-1031.jpg	GB-1031	Amick Street	Former Hardware Store	SE
GB-1032.jpg	GB-1032	McLung Ave		NE
GB-1033.jpg	GB-1033	McLung Ave		NE
GB-1034.jpg	GB-1034	McLung Ave		NE
GB-1035.jpg	GB-1035	McLung Ave		NE
GB-1036.jpg	GB-1036	Ingram Street	Ambulance SVC	SE
GB-1037.jpg	GB-1037	331 Route 20		NE
GB-1038.jpg	GB-1038	O'Dell Street		NE
GB-1039.jpg	GB-1039	O'Dell Street		SE
GB-1040.jpg	GB-1040	107 O'Dell Street		NE
GB-1041_1.jpg	GB-1041	Route 20 & Amick Street	U.S. Post Office	SW
GB-1041_2.jpg	GB-1041	Route 20 & Amick Street	U.S. Post Office	SE
GB-1042.jpg	GB-1042	Amick Street		NW
GB-1043.jpg	GB-1043	Amick Street		NE
GB-1044.jpg	GB-1044	Amick Street	Hill Top Restaurant	NW
GB-1045_1.jpg	GB-1045	115 Imperial Street	First Baptist Church Quinwood	W
GB-1045_2.jpg	GB-1045	115 Imperial Street	First Baptist Church Quinwood	NW
GB-1046.jpg	GB-1046	First Street		NW
GB-1047.jpg	GB-1047	First Street		N
GB-1048.jpg	GB-1048	First Street		SW
GB-1049.jpg	GB-1049	First Street		NW
GB-1050.jpg	GB-1050	First Street		NW
GB-1051.jpg	GB-1051	First Street		SW
GB-1052.jpg	GB-1052	First Street		SW
GB-1053.jpg	GB-1053	Imperial Street		N
GB-1054.jpg	GB-1054	Imperial Street		N
GB-1055.jpg	GB-1055	Amick Street	Quinwood Rebekah Lodge No. 36	NW
GB-1056.jpg	GB-1056	Amick Street	3rd Generation Restaurant 116 E Amick St.	NE
GB-1057.jpg	GB-1057	George Street		SE
GB-1058.jpg	GB-1058	Route 20	Garage	SE
GB-1059.jpg	GB-1059	Russellville Road	Church of the True Living God	SW
GB-1060_1.jpg	GB-1060	Route 20	Former Gulf Station	SW
GB-1060_2.jpg	GB-1060	Route 20		SE
GB-1061.jpg	GB-1061	116 George Street		NW
GB-1062.jpg	GB-1062	122 George Street		NE
GB-1063.jpg	GB-1063	Bell Blvd		N
GB-1064_1.jpg	GB-1064	Church Street	Quinwood United Methodist Church	NW

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
GB-1064_2.jpg	GB-1064	Church Street	Quinwood United Methodist Church	W
GB-1065.jpg	GB-1065	146 George Street		NW
GB-1066.jpg	GB-1066	George Street		NE
GB-1067.jpg	GB-1067	248 Route 20		NW
GB-1068_1.jpg	GB-1068	225;227;229 Route 20	Brierwood Beauty Salon	SE
GB-1068_2.jpg	GB-1068	225;227;229 Route 20	Brierwood Beauty Salon	SW
GB-1069.jpg	GB-1069	Route 20		SW
GB-1070.jpg	GB-1070	Route 20		SW
GB-1071.jpg	GB-1071	Route 20		SE
GB-1072.jpg	GB-1072	131 Linn Street		SW
GB-1073.jpg	GB-1073	Bell Blvd		SW
GB-1074.jpg	GB-1074	Bell Blvd		NW
GB-1075.jpg	GB-1075	130 Wellman Street		SE
GB-1076.jpg	GB-1076	110 Wellman Street		SW
GB-1077.jpg	GB-1077	108 Deitz Street		S
GB-1078.jpg	GB-1078	128 Deitz Street		SW
GB-1079.jpg	GB-1079	152 Home Drive		SW
GB-1080.jpg	GB-1080	Deitz Street		SE
GB-1081.jpg	GB-1081	105 Deitz Street		SE
GB-1082.jpg	GB-1082	129 Home Drive		E
GB-1083.jpg	GB-1083	208 Home Drive		SW
GB-1084.jpg	GB-1084	100 Home Drive		NW
GB-1085.jpg	GB-1085	175 Home Drive		NW
GB-1086.jpg	GB-1086	188 Home Drive		NE
GB-1087.jpg	GB-1087	Route 20		SE
GB-1088.jpg	GB-1088	157 Route 20		SE
GB-1089.jpg	GB-1089	112 Route 20		SE
GB-1090.jpg	GB-1090	176 Route 20		NE
GB-1091.jpg	GB-1091	168 Route 20		NW
GB-1092.jpg	GB-1092	Route 20		NW
GB-1093.jpg	GB-1093	Route 20		NW
GB-1094.jpg	GB-1094	Route 20		N
GB-1095.jpg	GB-1095	O'Dell Hill Road	RR Culvert	NW
GB-1096.jpg	GB-1096	166 Nancy Ave		SE
GB-1097.jpg	GB-1097	McLung Ave		SW
GB-1098.jpg	GB-1098	McLung Ave		SW
GB-1099.jpg	GB-1099	McLung Ave		NE
GB-1100.jpg	GB-1100	McLung Ave		NE
GB-1101.jpg	GB-1101	McLung Ave		NE
GB-1102.jpg	GB-1102	Crichton Street		NE
GB-1103.jpg	GB-1103	Crichton Street		SW
GB-1104.jpg	GB-1104	McLung Ave		SW

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
GB-1105.jpg	GB-1105	Crichton Street		NE
GB-1106_1.jpg	GB-1106	127 Crichton Street		NE
GB-1106_2.jpg	GB-1106	127 Crichton Street		N
GB-1107.jpg	GB-1107	Crichton Street		SE
GB-1108.jpg	GB-1108	Sue Ave		SE
GB-1109_1.jpg	GB-1109	Sue Ave		E
GB-1109_2.jpg	GB-1110	1st Street		NE
GB-1110.jpg	GB-1110	1st Street		W
GB-1111.jpg	GB-1111	McLung Ave		NE
GB-1112.jpg	GB-1112	McLung Ave		SE
GB-1113.jpg	GB-1113	47 School Street		NE
GB-1114.jpg	GB-1114	325 School Street		SW
GB-1115.jpg	GB-1115	School Street		NE
GB-1116.jpg	GB-1116	44 School Street		NW
GB-1117.jpg	GB-1117	43 School Street		NE
GB-1118.jpg	GB-1118	225 School Street		NW
GB-1119.jpg	GB-1119	158 School Street	Church	NE
GB-1120.jpg	GB-1120	52 Crichton		SE
GB-1121.jpg	GB-1121	53 Crichton		SW
GB-1122.jpg	GB-1122	54 Crichton		SE
GB-1123.jpg	GB-1123	55 Crichton Ave		SW
GB-1124.jpg	GB-1124	56 Crichton Ave		SW
GB-1125.jpg	GB-1125	57 Crichton Ave		SE
GB-1126.jpg	GB-1126	58 Crichton Ave		SW
GB-1127.jpg	GB-1127	59 Crichton Ave		SW
GB-1128_1.jpg	GB-1128	School Street	Crichton Elementary School (Formerly Meadowbrook HS)	NW
GB-1128_2.jpg	GB-1128	School Street	Crichton Elementary School (Formerly Meadowbrook HS)	NE
GB-1128_3.jpg	GB-1128	School Street	Crichton Elementary School (Formerly Meadowbrook HS)	N
GB-1129.jpg	GB-1129	CR 2		SE
GB-1130.jpg	GB-1130	CR 2		NE
GB-1131.jpg	GB-1131	CR 2		SE
GB-1132.jpg	GB-1132	Marfrance Road		SE
GB-1133.jpg	GB-1133	Margarite Hill Road		NE
GB-1134.jpg	GB-1134	Margarite Hill Road		SW
GB-1135.jpg	GB-1135	Margarite Hill Road		NW
GB-1136.jpg	GB-1136	Margarite Hill Road		SW
GB-1137.jpg	GB-1137	Margarite Hill Road		SW
GB-1138.jpg	GB-1138	Margarite Hill Road		NW
GB-1139.jpg	GB-1139	Margarite Hill Road		NW

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
GB-1140.jpg	GB-1140	Margarite Hill Road		NW
GB-1141_1.jpg	GB-1141	Margarite Hill Road		NW
GB-1141_2.jpg	GB-1141	Margarite Hill Road		SW
GB-1142.jpg	GB-1142	169 Fairview Road		SE
GB-1143_1.jpg	GB-1143	Fairview Road		SE
GB-1143_2.jpg	GB-1143	Fairview Road		SW
GB-1144.jpg	GB-1144	off of Slate Dump Mill Road		E
GB-1145.jpg	GB-1145	off of First Leslie Road		NE
GB-1146.jpg	GB-1146	off of First Leslie Road		SE
GB-1147.jpg	GB-1147	off of First Leslie Road		SE
GB-1148.jpg	GB-1148	off of First Leslie Road		SE
GB-1149.jpg	GB-1149	off of First Leslie Road		SE
GB-1150.jpg	GB-1150	off of First Leslie Road		SE
GB-1151.jpg	GB-1151	off of First Leslie Road		E
GB-1152.jpg	GB-1152	off of First Leslie Road		S
GB-1153.jpg	GB-1153	off of First Leslie Road		SW
GB-1154.jpg	GB-1154	First Leslie Road		SW
GB-1155.jpg	GB-1155	First Leslie Road		SE
GB-1156_1.jpg	GB-1156	CR 2		E
GB-1156_2.jpg	GB-1156	CR 2		E
GB-1157.jpg	GB-1157	27 First Street- CR44/8		N
	GB-1157	27 First Street- CR44/8		
GB-1158.jpg	GB-1158	39 2nd Street		NW
GB-1159.jpg	GB-1159	2nd Street		SW
GB-1160.jpg	GB-1160	2nd Street		SW
GB-1161.jpg	GB-1161	2nd Street		S
GB-1162.jpg	GB-1162	2nd Street		S
GB-1163.jpg	GB-1163	195 2nd Street		SW
GB-1164.jpg	GB-1164	2nd Street		W
GB-1165.jpg	GB-1165	2nd Street		NW
GB-1166.jpg	GB-1166	2nd Street		W
GB-1167.jpg	GB-1167	2nd Street		NE
GB-1168.jpg	GB-1168	2nd Street		NW
GB-1169.jpg	GB-1169	First Street		SW
GB-1170.jpg	GB-1170	First Street		NW
GB-1171.jpg	GB-1171	Bellburn Road		SE
GB-1172.jpg	GB-1172	3 Bellburn Road	Store Managers House	E
GB-1173.jpg	GB-1173	Bell Blvd		E
GB-1174.jpg	GB-1174	148 Route 20		E
GB-1175.jpg	GB-1175	CR 1 - HC34 Box 64	Charles and Susie Cameron	NE
GB-1176.jpg	GB-1176	CR 1		NW
NI-0026-0192_1.jpg	NI-0026-0192	CR 17	Mount Urim Baptist Church	NW

Appendix H. Photo Logs

Negative Numbers	WVDCH Number	Address/ Location	Name	View
NI-0026-0192_2.jpg	NI-0026-0192	CR 17	Mount Urim Baptist Church	SW
NI-0026-0196.jpg	NI-0026-0196	CR 17	O'Dell House	SE
NI-0026-0198.jpg	NI-0026-0198	2311 CR 17	Ballard House	SE
NI-0026-0199_1.jpg	NI-0026-0199	CR 17	Hilltop Methodist Church	SE
NI-0026-0199_2.jpg	NI-0026-0199	CR 17	Hilltop Methodist Church	S
NI-0026-0200.jpg	NI-0026-0200	CR 17	Lipps House	NE
NI-0027-0006.jpg	NI-0027-0006	White Buck Knob Road	Stein House	SW
NI-0027-0015.jpg	NI-0027-0015	7114 Route 20	Stroup House	E
NI-0027-0022_1.jpg	NI-0027-0022	Charlie O'Dell Road/CR 44-8	Swartz House	SW
NI-0027-0022_2.jpg	NI-0027-0022	Charlie O'Dell Road/CR 44-8	Swartz House	S
NI-0027-0024.jpg	NI-0027-0024	Charlie O'Dell Road/CR 44-8	O'Dell Homeplace	NE
NI-0090.jpg	NI-0090	5419 Route 20		SW
NI-0091.jpg	NI-0091	Route 20		SE
NI-0092.jpg	NI-0092	off of Route 20, 20 Gary Road		SE
NI-0093.jpg	NI-0093	6576 Route 20		SE
NI-0094.jpg	NI-0094	7212 Route 20		NE
NI-0095.jpg	NI-0095	Coggins Knob Road & Whitetail Road		SE
NI-0096.jpg	NI-0096	954 CR 17		SW
NI-0097_1.jpg	NI-0097	16742 Route 20		SE
NI-0097_2.jpg	NI-0097	16742 Route 20		SE
NI-0098.jpg	NI-0098	10788 Route 20		NE
NI-0099.jpg	NI-0099	10798 Route 20	Green Valley Missionary Baptist Church	NE

APPENDIX I

**ACOUSTIC STUDY OF PROPOSED EXPANSION/MODIFICATION
OF BEECH RIDGE WIND FARM, GREENBRIER COUNTY, WV**

Acentech Report No. 421

**Acoustical Study of Proposed Expansion/Modification of
Beech Ridge Wind Farm
Greenbrier County, WV**

July 2011

James D. Barnes

Submitted by:

**Acentech Incorporated
33 Moulton Street
Cambridge, MA 02138**

Prepared for:

**Beech Ridge Energy II LLC
c/o Invenenergy LLC
51 Monroe Street, Suite 1604
Rockville, MD 20850**

Table of Contents

	Page
List of Figures and Tables	iii
1. Introduction	1
2. Description of Proposed Facility and Site	1
3. Guidelines for Noise Studies.....	2
4. Preconstruction Ambient Sound Measurements	3
5. Construction Sound Estimates and Mitigation Measures.....	4
6. Operation Sound Estimates and Mitigation Measures.....	6
7. Noise Impact Assessment	8
Appendix A – Sound in Lay Terms	A-1

List of Figures and Tables

- Figure 1. Area Map with Proposed Beech Ridge Phase II Wind Farm Showing Turbine Locations and One Mile and Five-Mile Buffer Zones.
- Figure 2. Area Map Showing Land Use Classifications with Community Sound Monitoring Locations 1 through 4 and Average Measured Existing Ambient A-Weighted Day-Night Sound Levels (Ldn, dBA) during 4 – 15 February 2011 Sound Survey.
- Figure 3. View Looking SW from Location 1 (Town of Duo).
- Figure 4. View Looking E from Location 2 (Beech Ridge Road).
- Figure 5. View Looking SE from Location 3 (NW of Project Site).
- Figure 6. View Looking NE from Location 4 (Town of Quinwood).
- Figure 7. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 1 (Town of Duo) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.
- Figure 8. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 2 (Beech Ridge Road) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.
- Figure 9. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 3 (NW of Project Site) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.
- Figure 10. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 4 (Town of Quinwood) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.
- Figure 11. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Construction A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.
- Figure 12. Estimated A-Weighted Ldn Sound Level for Operation (dBA) of Proposed Expansion of Beech Ridge Wind Farm at 21 Residential Structures within One Mile of Project Boundary.
- Figure 13. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Operation A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.

List of Figures and Tables Con't.

Figure 14. Area Map of Proposed Expansion of Beech Ridge Wind Farm Showing Land Use Classifications with Estimated Operation A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.

Figure 15. Estimated C-Weighted Ldn Sound Level for Operation (dBC) of Proposed Expansion of Beech Ridge Wind Farm at 21 Residential Structures within One Mile of Project Boundary.

Figure 16. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Operation C-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient C-Weighted Ldn Sound Levels (dBC) at Locations 1 to 4.

Table 1. Description of Monitoring Locations for Preconstruction Ambient Sound Survey (4 - 15 February 2011).

Table 2. Type of Acoustic Instrumentation Used for Ambient Sound Survey (4 - 15 February 2011).

Table 3. Summary of Monitoring Locations and Ldn Sound Levels (dBA) Measured during Ambient Sound Survey (4 - 15 February 2011).

Table 4. Estimated Equivalent Sound Levels (Leq*) of Representative Construction Equipment at Various Distances.

Table 5. Comparison of Average Measured A-Weighted Ldn Sound Levels during Ambient Sound Survey with Estimated A-Weighted Ldn Sound Levels for WTG Facility (dBA).

Table 6. Comparison of Average Measured C-Weighted Ldn Sound Levels during Ambient Sound Survey with Estimated C-Weighted Ldn Sound Levels for WTG Facility (dBC).

Table 7. Estimated A-Weighted and C-Weighted Ldn Sound Levels (dBA and dBC) for WTG Facility at Residential Structures within One Mile of Expansion Area.

1. Introduction

Beech Ridge Energy LLC has successfully designed, certificated, and constructed a portion of a large-scale wind farm in Greenbrier County, West Virginia consisting of 67 turbines and 100 MW of turbine capacity at a mountainous rural site in the southeast portion of the state. Beech Ridge Energy LLC successfully operates these 67 turbines and now proposes to continue construction of the certificated facility to the west by installing up to 85.5 MW of turbine capacity. At the request of Beech Ridge Energy LLC, Acentech Incorporated has performed an acoustical study of the expansion area and provided information for review by the West Virginia Public Service Commission (WVPSC) for the site permitting process. Acentech has to date reviewed the facility and site drawings, equipment information, and the noise study guidelines of the WVPSC; toured the project area; conducted sound measurements and observations of the existing ambient conditions at representative community locations; and estimated construction and operation sound levels for the facility. This report presents the ambient sound measurements and results of our acoustical study.

2. Description of Proposed Facility and Site

The proposed expansion consists of up to 33 General Electric (GE) Model 1.6xle-100 wind turbine generators (WTGs) and associated equipment, with each WTG including its 100-meter diameter rotor to be mounted on individual 100-meter tall towers across about 8 square miles of ridgelines in Greenbrier County, WV. The associated equipment includes a 2 MVA transformer at each WTG tower, and 34.5kV underground transmission lines for the electrical collection system that will connect into the existing 34.5/138kV substation with a 200 MVA main transformer and 138kv overhead transmission line or supplemental substation/transmission line that would connect to the existing project related transmission line. The service center for the existing portion of the wind farm, which is located in the northern section of the proposed expansion area, will also serve the expanded facility. Figure 1 displays the proposed new wind turbines overlaid on a map of the region. The study evaluated 47 potential locations for the 33 turbines, and therefore, included 14 alternate locations.

Each GE Model 1.6xle-100 wind turbine incorporates a horizontal-axis propeller that drives a gearbox and generator mounted to the top of a 100-m (328-ft) high tower. A nacelle for weather protection and noise control encloses the gearbox and generator. The 100-m (328-ft) diameter rotor has three blades, which attach to a hub that contains active blade pitch control; this system provides for peak aerodynamic efficiency over a range of wind conditions. During routine operation, the rotational speed of the rotor will range from 9.75 to 16.18 revolutions per minute; and at wind speeds below 3 m/s (6.7 mph) and at wind speeds above 25 to 30 m/s (56 to 67 mph), it will not operate. The rated capacity of

this unit is 1.6 MW at a wind speed of 11 m/s (24 mph). The WTGs include the following noise control treatments into its design: impact noise insulation of the gearbox and generator, reduced-noise gearbox, reduced-noise nacelle; vibration isolation mounts, and quieted-design rotor blades.

The existing wind farm and proposed area are located on the mountain ridges to the north of US Rt. 60 and I-64 and south of the Monongahela National Forest, and to the west of Rt. 219, and to the east of WV Rt. 20. Lightly traveled paved and unpaved roads cross this rural area, which is dotted with scattered homes and seasonal hunting cabins, and with several small groups of homes in settlements such as Duo. The existing substation is located to the east of the proposed expansion area and in the center of the existing wind farm with the overhead transmission line running to the northwest from the substation out to the external power grid.

3. Guidelines for Noise Studies

The WVPSA Guidelines for Noise Studies for Siting Certificates include:

- Preconstruction – identify land uses and existing ambient sound levels (Ldn) in communities within one mile of the facility.
- Construction – predict construction noise associated with blasting, earthmoving, pile driving, erection, traffic, and equipment installation at the nearest property boundary and within one mile and five miles from the facility. Identify noise sensitive areas within one mile and five miles of the facility. The noise sensitive areas include hospitals, schools, residences, cemeteries, parks, and churches. Describe construction equipment, procedure, and potential noise mitigation options.
- Operation – predict operation noise and identify land uses and type of structures (residential, commercial, or industrial) within one mile of the facility. Describe equipment and procedures to mitigate potential noise.

Information on the preconstruction ambient, construction, and operation sounds for the facility are presented in the following sections. Please refer to “Appendix A - Sound in Lay Terms” for a useful overview of sound and its measurement.

4. Preconstruction Ambient Sound Measurements

Figure 2 is a map of the project area with an overlay of the proposed turbine sites, land use classifications, the community sound measurement locations, and the measured day-night sound levels (Ldn). Table 1 describes the four monitoring locations selected for the ambient survey that Acentech conducted over a nominal one-week period in the first half of February 2011. The acoustic environment and nearby land uses were observed at these locations, and they were judged representative of those at the noise sensitive receptors, such as residences and churches, in the community bordering the expansion site.

The weather during the survey was seasonal and ranged from clear to cloudy skies with very little snow, calm to windy conditions, and temperatures from about 0°F to 15°F during the first half of the survey, and warming to 30°F to 40°F near the end of the survey. As Table 1 notes, most of the monitoring locations are in close proximity to nearby homes/seasonal residences or small groups of homes, and the monitoring locations range from 1600 ft. to 10,600 ft. from the nearest proposed new WTG location. The monitoring location in the Town of Duo that is 10,600 ft. from the nearest proposed new WTG is also 3600 ft. from the nearest existing operating wind turbine.

The purpose of the ambient survey was to characterize the existing land uses, sound sources, acoustic environment, and specifically, representative long-term Ldn values in the area. Figures 3 through 6 display photographs of the four locations where the A-weighted sound levels were monitored continuously during the survey. The field team also collected short-term measurements and observations during visits to each monitoring location. The observed sources typically included wind in trees, local and distant traffic, dogs, birds, aircraft, distant mining industry, and a flowing creek. The sound of the existing wind facility was observed at the Town of Duo location during one visit before the local wind speed picked up and the associated sound of wind in the trees masked the turbine sound; in general, the wind was from the southwest and the Duo location was typically crosswind/downwind of the nearest turbines at the time. The average sound levels at the Duo location ranged from 41 dBA to 43 dBA during the time when the wind facility sound was observed, and although the nearest turbines could be heard at times, the field team judged that turbine sound did not significantly influence the average sound levels. As the ambient data below indicate, the long-term Ldn sound level at the Duo location was similar to the Ldn levels measured at the three other community monitoring locations that are much farther from the existing wind facility. Table 2 lists the instruments that were employed for the ambient survey.

Figures 6 through 9 display the variations in sound levels that were measured at the four locations. To address the WVPSC Noise Guidelines for Noise Studies, the figures show the Leq sound level for each

10-minute interval, and also, indicate the Ldn sound level for the nominal one-week period. The figures, in addition, present the wind speeds for each 10-minute interval that were measured at the two nearby meteorological towers operated by Beech Ridge Energy LLC . As mentioned above, Appendix A provides an overview on sound and its measurement, and in particular, discusses the Leq and Ldn descriptors. Please note that Leq sound levels include both the steady background sounds (steady wind in trees, rushing stream, or distant industry) and the short-term intrusive sounds (e.g., dog barks or local car passby). Table 3 lists the long-term Ldn values measured at each location. Of most significance, the data indicate that the long-term Ldn sound levels ranged from 47 dBA to 50 dBA, with an average value of 48 dBA and a standard deviation of 1 dBA across the four locations. The measured Ldn values, sound source types, and land uses are relatively uniform across the study area and the ambient sound level contours are judged to be generally flat within this area. Therefore, Fig. 2 displays the individual measured Ldn values, but no individual contours.

5. Construction Noise Estimates and Mitigation Measures

Initial construction activities (Construction Phase I) will include improvements and new construction of facility access roads; then clearing, excavation, foundation, and backfill work at the WTGs and the substation. Concrete for the project will be made at temporary on-site batch plants using trucked-in materials. Phase I activities will be followed by Phase II activities, which are comprised of erection of the WTG towers and installation of the WTGs; trenching and installation of the electrical collection system; and installation of substation equipment. Finally, prior to commercial operation, the individual equipment items and the entire facility will be tested and commissioned during Phase III.

A majority of the construction activities associated with the proposed project will be conducted during daylight hours. At times over the planned construction schedule, the construction activities will be audible to nearby residents. Any construction at the facility in the evening and nighttime is expected to be limited to relatively quiet activities and to be less noticeable than in the daytime.

The following mitigation measures will be employed during the construction phase of the project:

- Effective exhaust mufflers in proper working condition will be installed on all engine-powered construction equipment at the site. Mufflers found to be defective will be replaced promptly.
- Require contractors to comply with federal limits on truck noise.

- Construction contractors will be required to ensure that their employee and delivery vehicles are driven responsibly.
- Nighttime construction work that does occur will generally be limited to relatively quiet activities, such as welding and installing equipment, cabling, and instrumentation.
- If blasting is required, it will be conducted in accordance with standard industrial practices and include those requirements established by the WVPSC in its original approved siting certificate for the Beech Ridge Facility with the overall goal of reducing potential impacts to nearby residents.

Construction sound that may be heard off-site will vary from hour-to-hour and day-to-day in accordance with the equipment in use and the operations being performed at the site. Since the construction activity at the site will be temporary, will occur mostly in the daytime hours, and will produce sounds that are already familiar to the community, its overall noise impact on the community beyond 1000 ft. of the nearest turbine is not expected to be significant. Note that the community currently experiences sound from timber and mining operations.

Typical on-site equipment used to construct the wind farm project will include trucks, cranes, dozers, excavators, trenchers, graders, and batch plants. Representative equivalent sound levels associated with these construction items during the workday are listed in Table 4. For example, with 2 trucks, 1 dozer, and 1 excavator operating at a WTG, the calculated equivalent sound level during the workday is 53 dBA at 1640 ft. (e.g., residential structure B-23 in Table 7) and 44 dBA at 3330 ft. (e.g., residential structure GB-0125) from a proposed new turbine. The reported sound levels are based on the results of extensive previous acoustical studies of engine-powered construction equipment. Figure 11 displays the contours of the estimated maximum Ldn sound levels over the entire study area for Construction Phase 1, with comparisons to the measured preconstruction ambient Ldn values. The sound estimates for the expansion study assume construction activity at all 47 potential turbine locations, although only 33 turbines will be constructed. These contours were developed with a commercial computer noise modeling program, Cadna/A. This program employs ray-tracing technology that accounts for various factors, including geometric spreading, atmospheric absorption, and ground conditions; for the purpose of our modeling, we have assumed that the community is always downwind from the project equipment.

6. Station Sound Estimates and Mitigation Measures

The range of sound levels that will propagate from the wind turbine generators to various locations in the community around the site has been predicted. The project is addressing the facility sound with the purchase of the General Electric 1.6xle-100 wind turbine generator, which incorporates the following noise control treatments into its design:

- Noise insulation of the gearbox and generator
- Reduced-noise gearbox
- Reduced-noise nacelle
- Vibration isolation mounts
- Quieted-design rotor blades

In addition, the project will specify and purchase high-efficiency, reduced-noise transformers. The estimated A-weighted Ldn operating sound levels for the four community monitoring locations are listed in Table 5; and for the 21 residential structures within one mile of the project, the estimates are shown in Table 7 and plotted versus distance to the nearest WTG on Fig. 12. Of added note, Figs. 13 and 14 (respectively, without and with land use classifications) display the A-weighted Ldn sound contours for operation of the proposed facility expansion. Similar to the estimated construction noise values, the estimated Ldn values and contours for the operating phase were developed with the computer noise modeling program, Cadna/A. Measurements and observations made by the field team in February 2011 along Cold Knob Road about one mile east of the existing A-line turbines during a time with favorable turbine operating, background sound, and sound propagation conditions, support the Cadna modeling procedure. The estimated values for the wind farm Ldn sound levels range at the community monitoring locations from 33 dBA to 47 dBA and at the 21 residential structures within one mile of the project from 38 dBA to 47 dBA, which compare to the measured range of preconstruction ambient Ldn values of 47 dBA to 50 dBA. The facility sound estimates assume maximum sound output of all wind turbine generators at 47 potential locations, which occurs under conditions of maximum rated wind speed [11 m/s (24 mph) to cutout]. As previously noted, the study evaluated all 47 potential locations for the turbines although only 33 turbines will be installed as part of the expansion phase. Under conditions of reduced wind speeds, the background sound associated with wind in trees would be less; however, the WTG sound emissions would also be less.

The project sound levels are estimated on a time-weighted basis (Ldn) for outdoor locations; for indoor locations, these levels would be reduced by 12 dBA with the windows open and by 24 dBA or more with the windows closed. We anticipate that the wind farm will be heard at times in the community at distances of 1600 ft. from the project, however, ambient sounds will provide useful masking of the turbine sound and our measurements and estimates indicate that the long-term Ldn sound levels of the

wind farm will be similar or less than the existing ambient Ldn levels at that distance for both outdoor and indoor locations. And at greater distances, the long-term Ldn sound levels of the wind farm are estimated to be significantly less than the existing ambient Ldn levels.

To address the potential issue of low frequency sound for the expansion project, we employed the Cadna model to estimate the C-weighted Ldn sound levels for the proposed new turbines; these estimates, including comparisons with the measured ambient C-weighted Ldn values, are presented on Figs. 15 and 16 and listed in Tables 6 and 7. As described in Appendix A, the C-weighted sound level (dBC) slightly de-emphasizes the low and high frequencies relative to the mid frequency components of sound. The de-emphasis of low frequency sound with the C-weighting filter is less than with the A-weighting filter, which results in a measured C-weighted sound level being greater than its corresponding A-weighted sound level at a given community location. By comparing an A-weighted sound level (dBA) with a C-weighted sound level (dBC), one can determine the low frequency component of the sound. The estimated C-weighted Ldn sound levels for the wind farm range from 52 dBC to 62 dBC at the community monitoring locations and from 54 dBC to 62 dBC at the 21 residential structures within one mile of the project; these estimates compare to the similar range of measured preconstruction ambient C-weighted Ldn values of 55 dBC to 73 dBC across the monitoring locations.

The study also considered the potential additive effects of the existing and the proposed expansion on the sound levels in the community. The Town of Duo is located between the existing wind facility and the proposed expansion area. Most of the residences in the town are approximately two miles from the nearest turbines of the proposed expansion and about 3600 ft. from the nearest existing turbines. The estimated Ldn sound levels at these residences due to the proposed new turbines are modest and range from 31 to 34 dBA. And the Ldn sound levels from wind farm operation for most of the locations are estimated to increase about 1 dBA with the addition of the proposed new turbines compared to the current levels with only the existing turbines. As noted previously in this report, the sound model is conservative as it assumes that all turbines are operating at maximum sound power output and that all locations, including the Duo locations, are downwind of all turbines at all times.

7. Noise Impact Assessment

As noted in Section 5, the majority of the construction activities associated with the project will be conducted during the daylight hours, and it will vary over time, depending on the equipment in use and the operations being performed at the site. The temporary noise associated with construction of the project will be similar to the noise produced during excavation, grading, and steel erection activities at many other mid-size building projects, and the current timber and mining activities in the region.

Similar to the existing wind turbine facility, the expansion facility will be available to operate 24-hours per day and seven days per week; and it may be heard at times in the community during turbine operation. It is expected that routine operation will produce day-night sound levels in the community that are similar to or lower than the measured existing ambient day-night sound levels.

Figure 1. Area Map with Proposed Beech Ridge Phase II Wind Farm Showing Turbine Locations and One Mile and Five-Mile Buffer Zones.

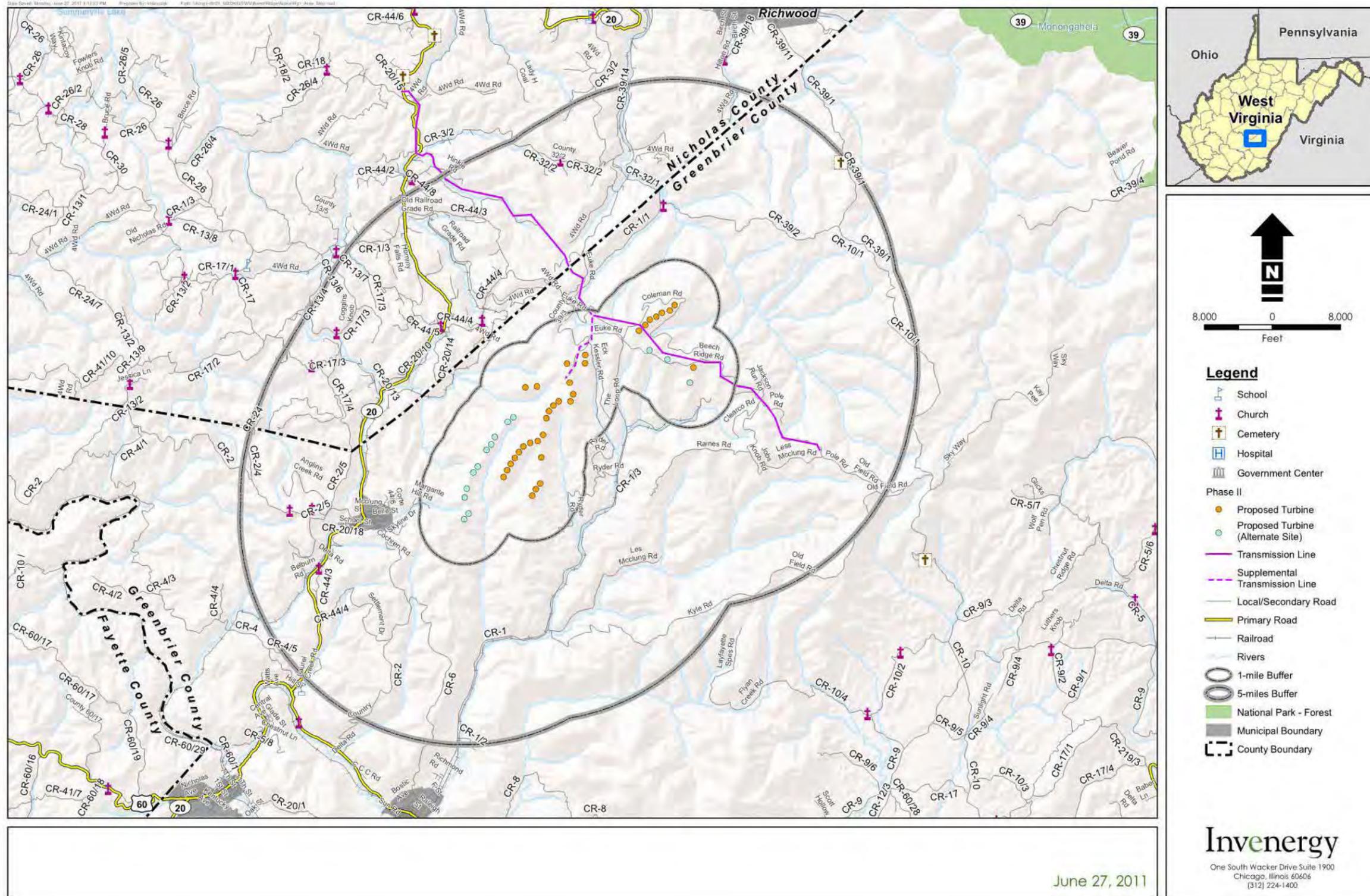


Figure 2. Area Map Showing Land Use Classifications with Community Sound Monitoring Locations 1 through 4 and Average Measured Existing Ambient A-Weighted Day-Night Sound Levels (Ldn, dBA) during 4 – 15 February 2011 Sound Survey.

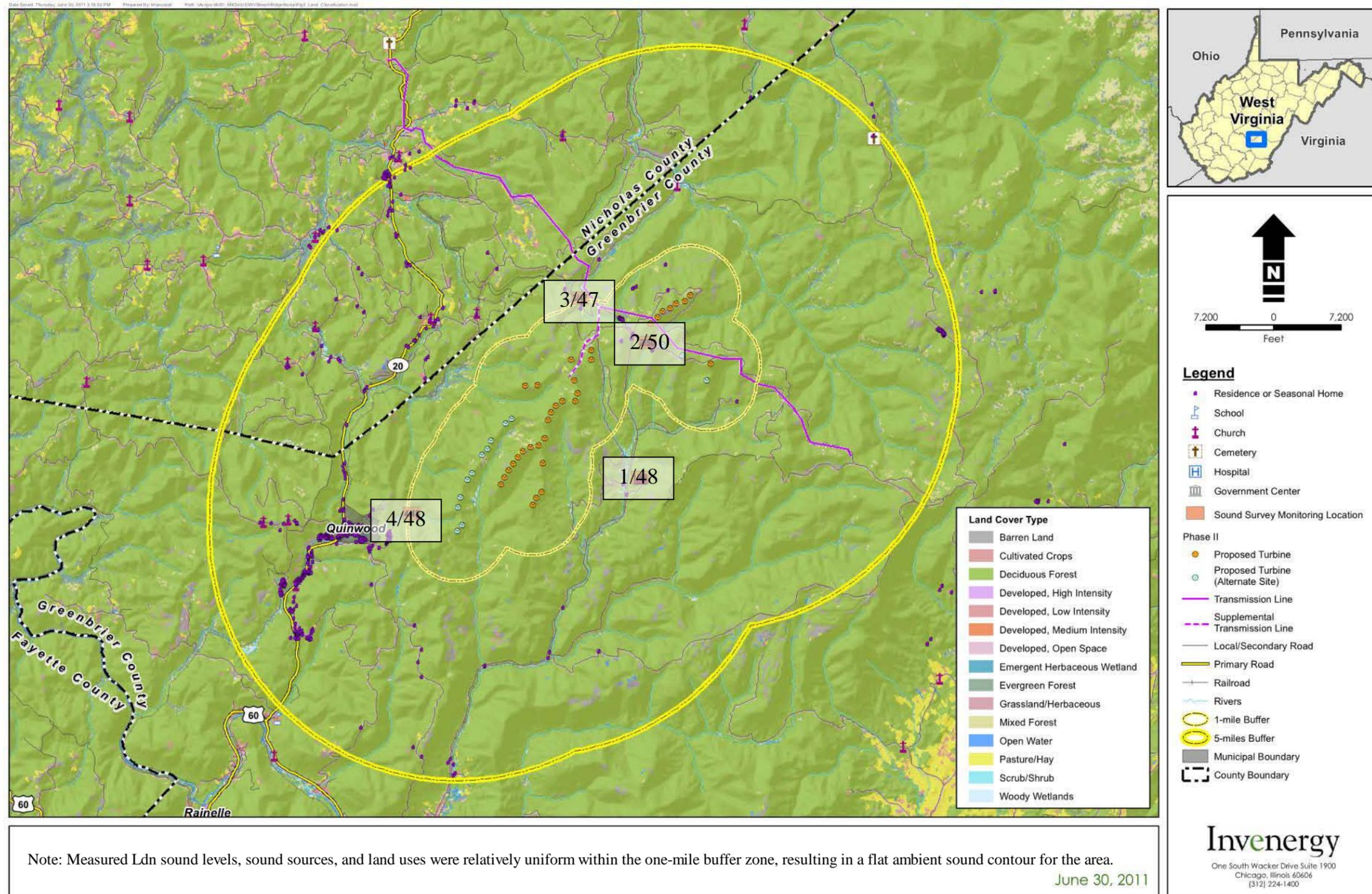


Figure 3. View Looking SW from Location 1 (Town of Duo).



Figure 4. View Looking E from Location 2 (Beech Ridge Road).



Figure 5. View Looking SE from Location 3 (NW of Project Site).



Figure 6. View Looking NE from Location 4 (Town of Quinwood).



Figure 7. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 1 (Town of Duo) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.

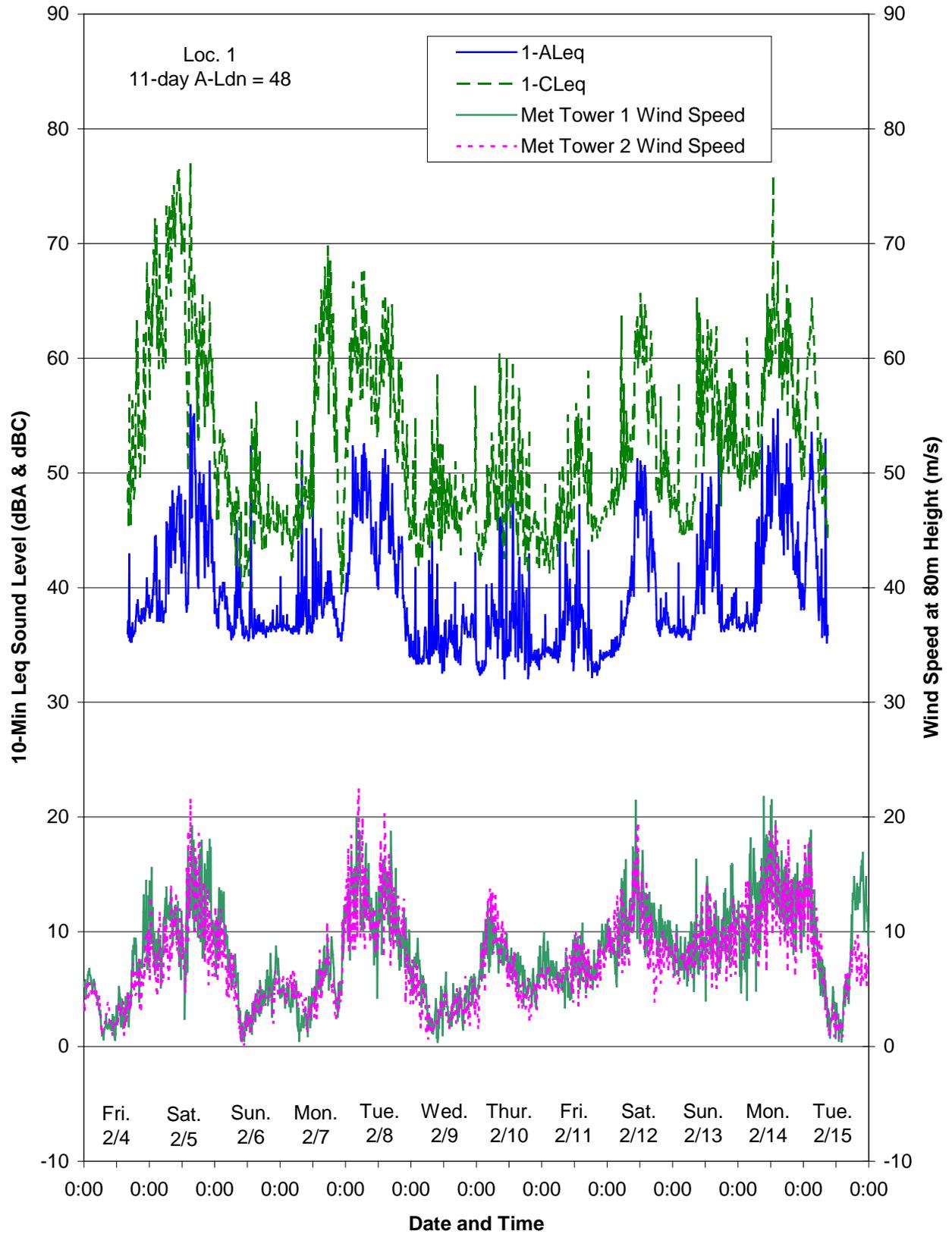


Figure 8. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 2 (Beech Ridge Road) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.

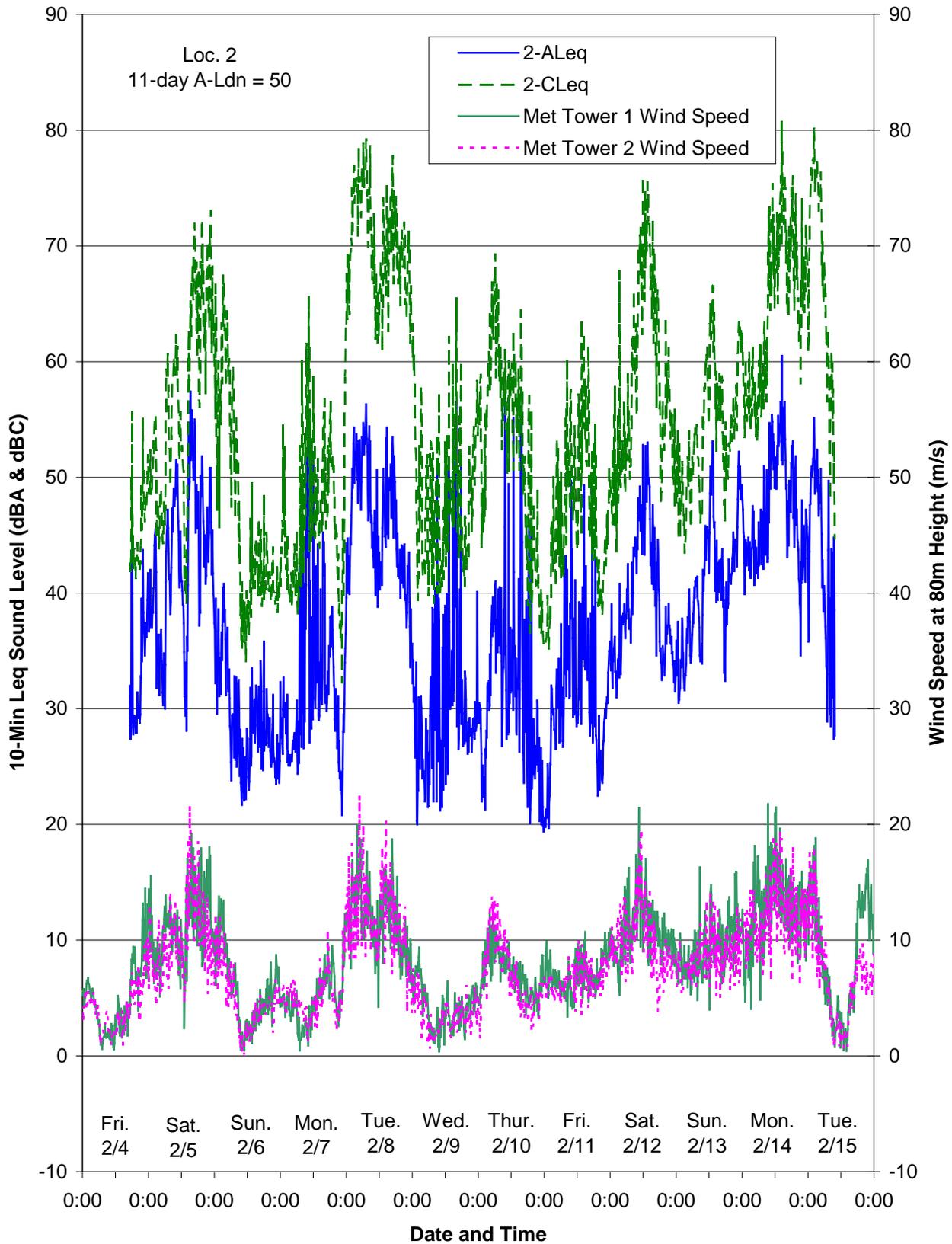


Figure 9. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 3 (NW of Project Site) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.

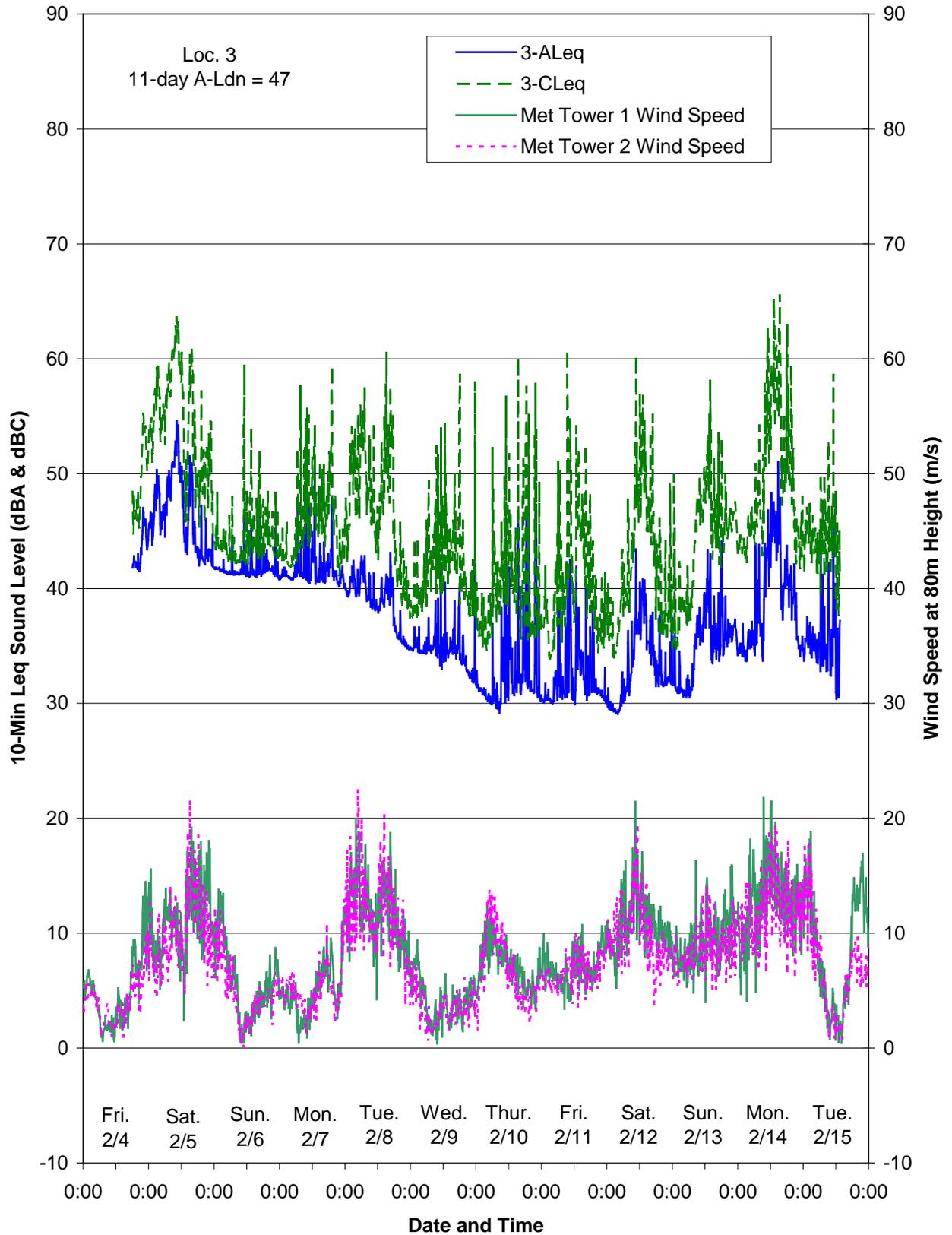


Figure 10. Leq A-Weighted and C-Weighted Existing Ambient Sound Levels Measured at Location 4 (Town of Quinwood) and Wind Speeds for 10-Minute Intervals during 4 – 15 February 2011.

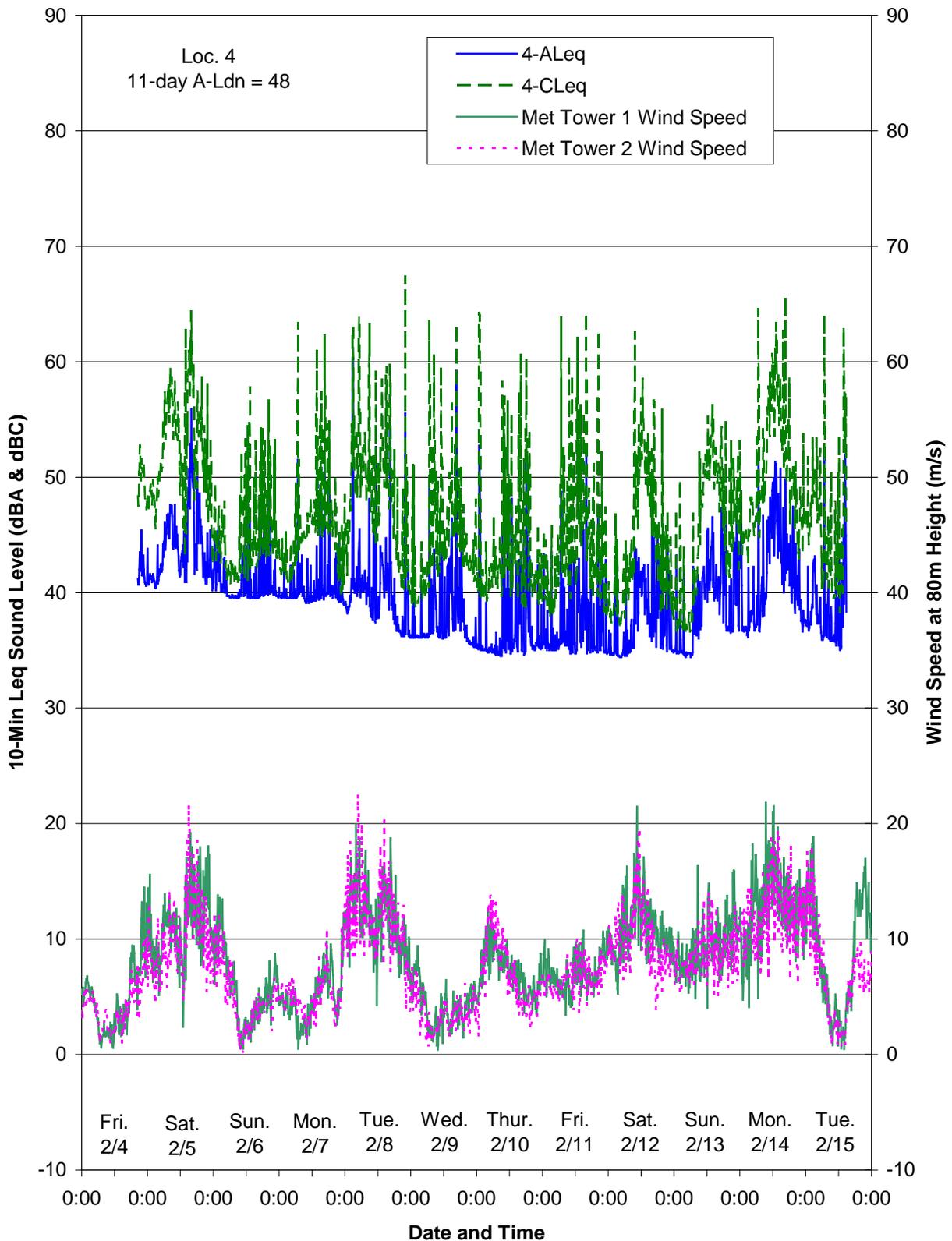


Figure 11. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Construction A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.

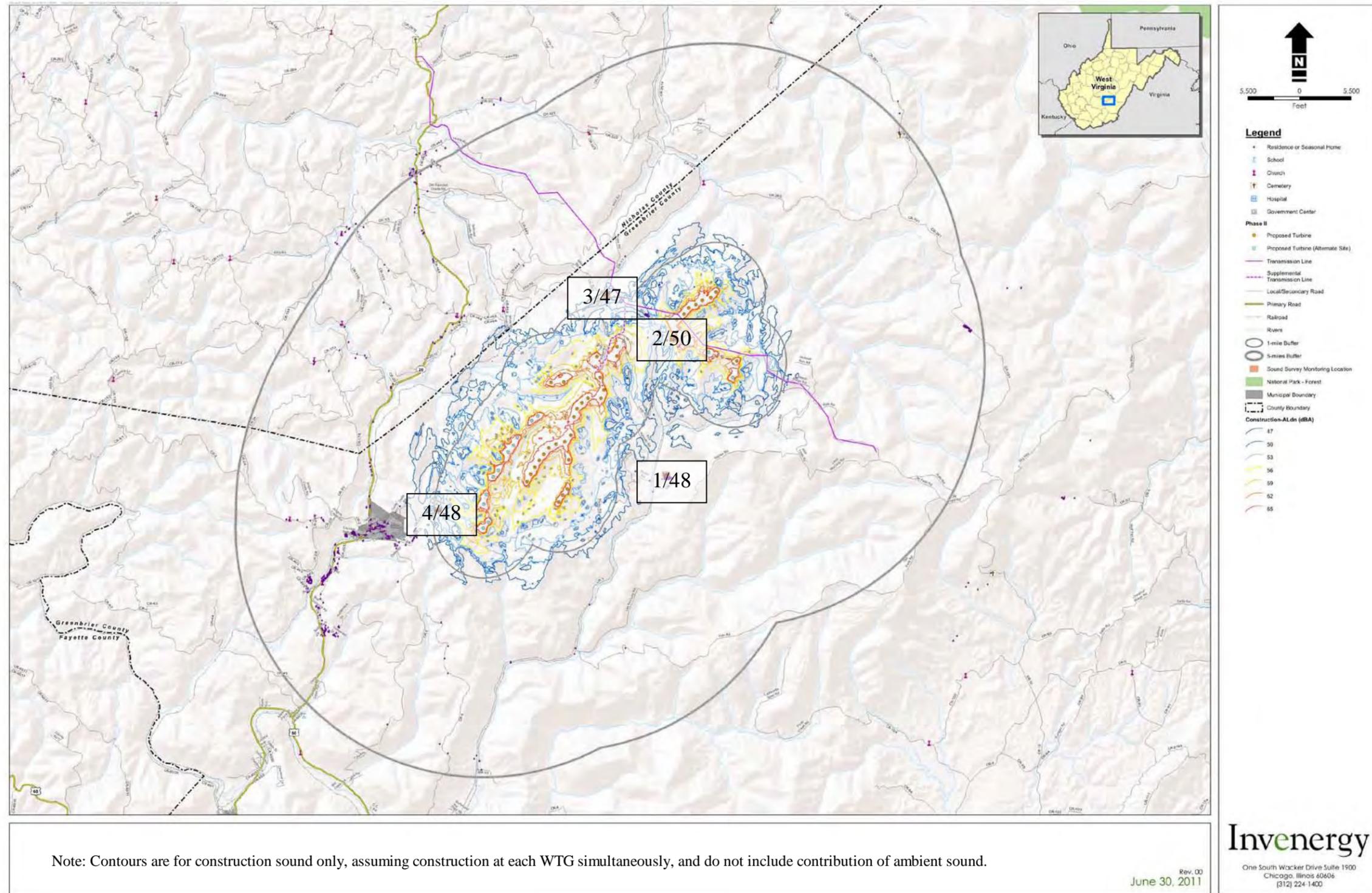


Figure 12. Estimated A-Weighted Ldn Sound Level for Operation (dBA) of Proposed Expansion of Beech Ridge Wind Farm at 21 Residential Structures within One Mile of Project Boundary.

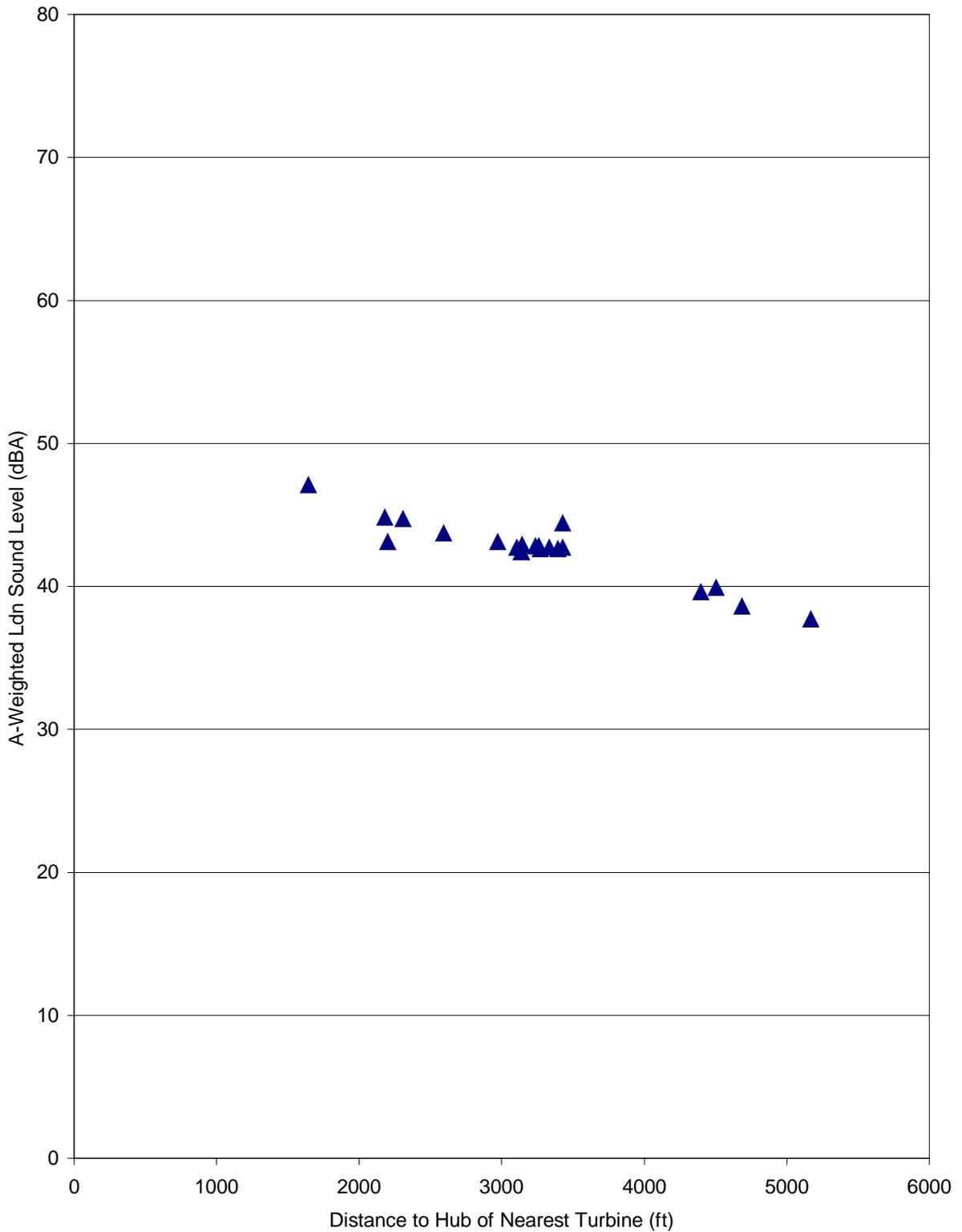
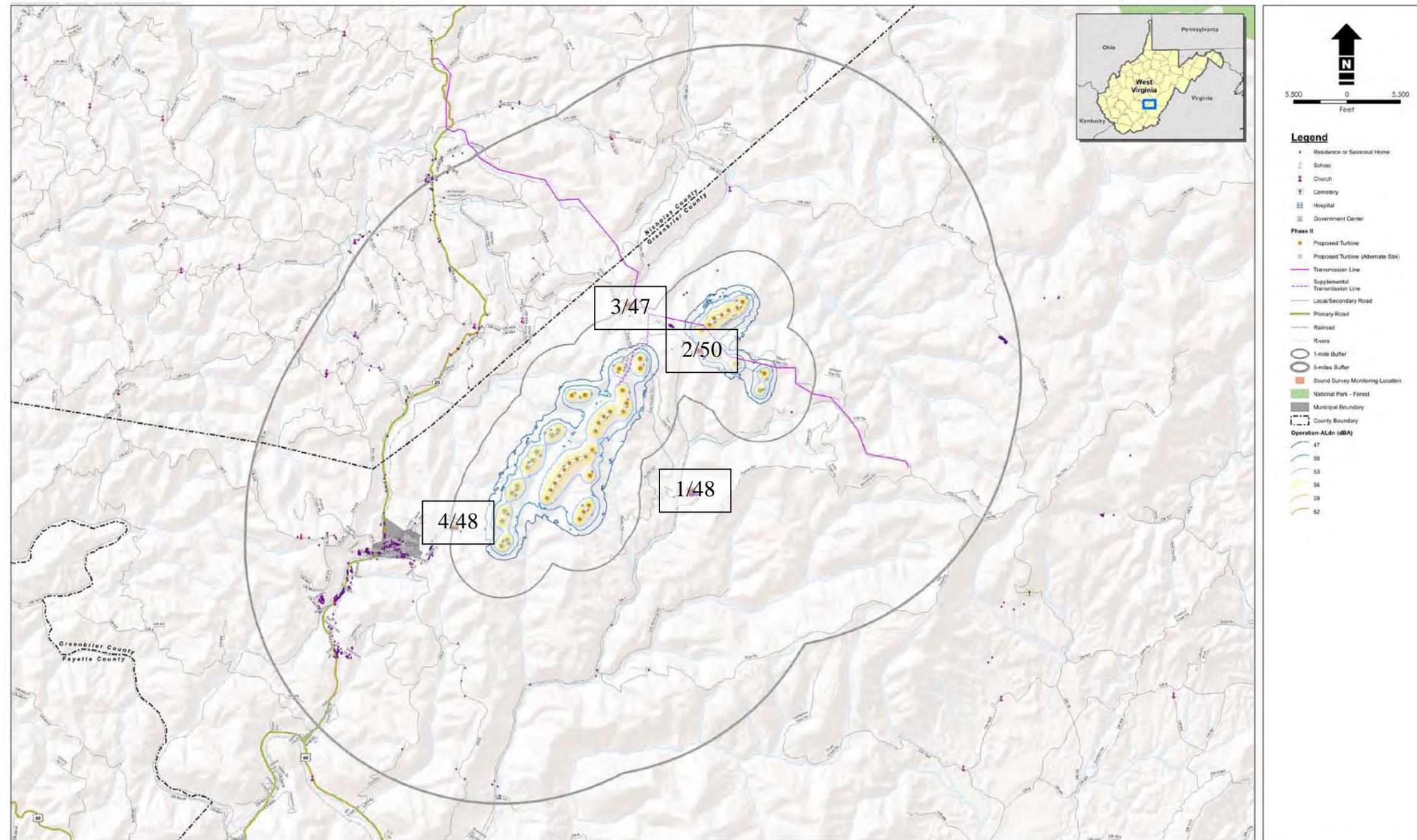


Figure 13. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Operation A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.

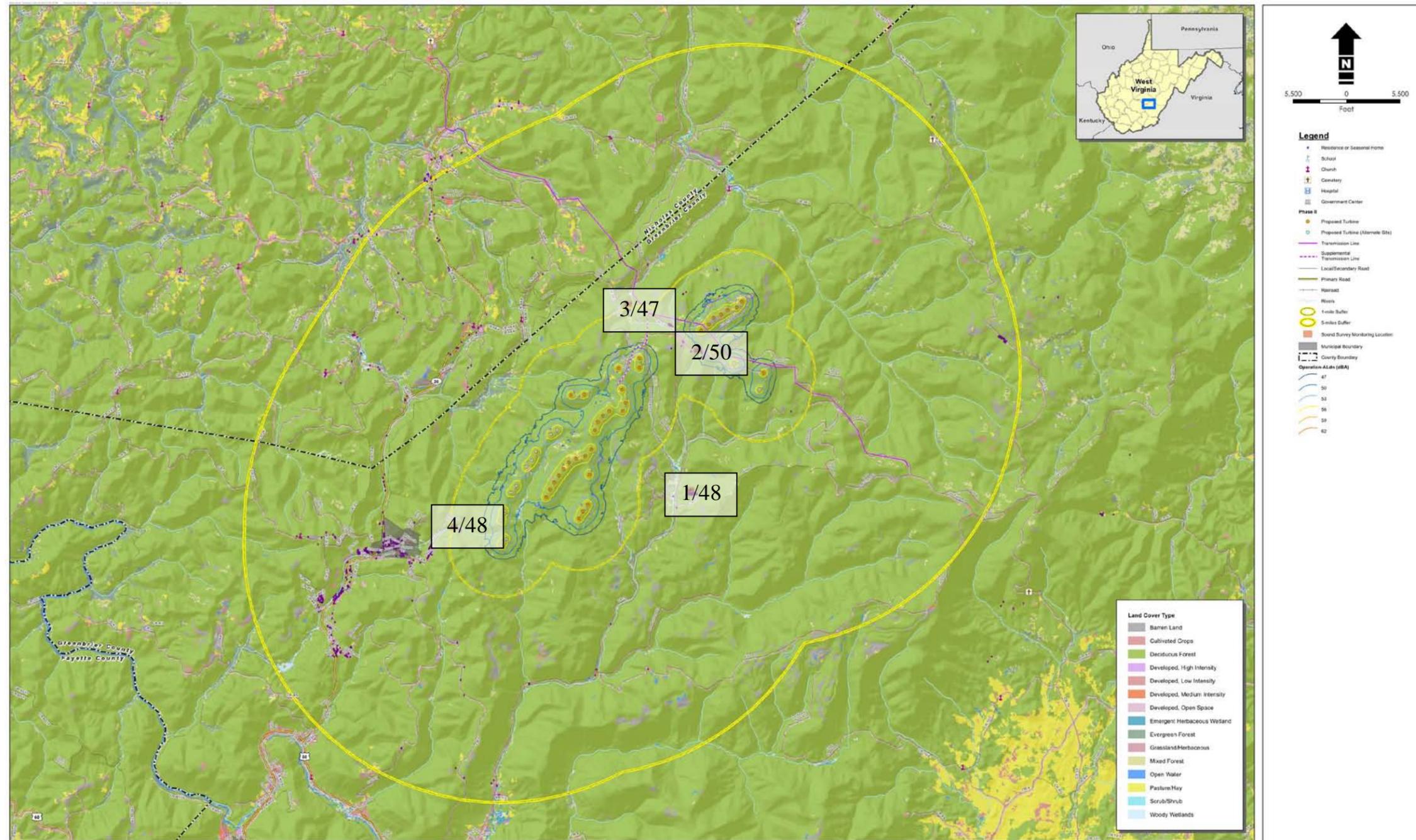


Notes: Contours are for operation sound only and do not include contribution of ambient sound. Land use classifications not shown on this figure for clarity; see Figure 14 for Operation Sound Level Contours on map with land use classifications.

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Figure 14. Area Map of Proposed Expansion of Beech Ridge Wind Farm Showing Land Use Classifications with Estimated Operation A-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient A-Weighted Ldn Sound Levels (dBA) at Locations 1 to 4.



Note: Contours are for operation sound only and do not include contribution of ambient sound.

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Figure 15. Estimated C-Weighted Ldn Sound Level for Operation (dBC) of Proposed Expansion of Beech Ridge Wind Farm at 21 Residential Structures within One Mile of Project Boundary.

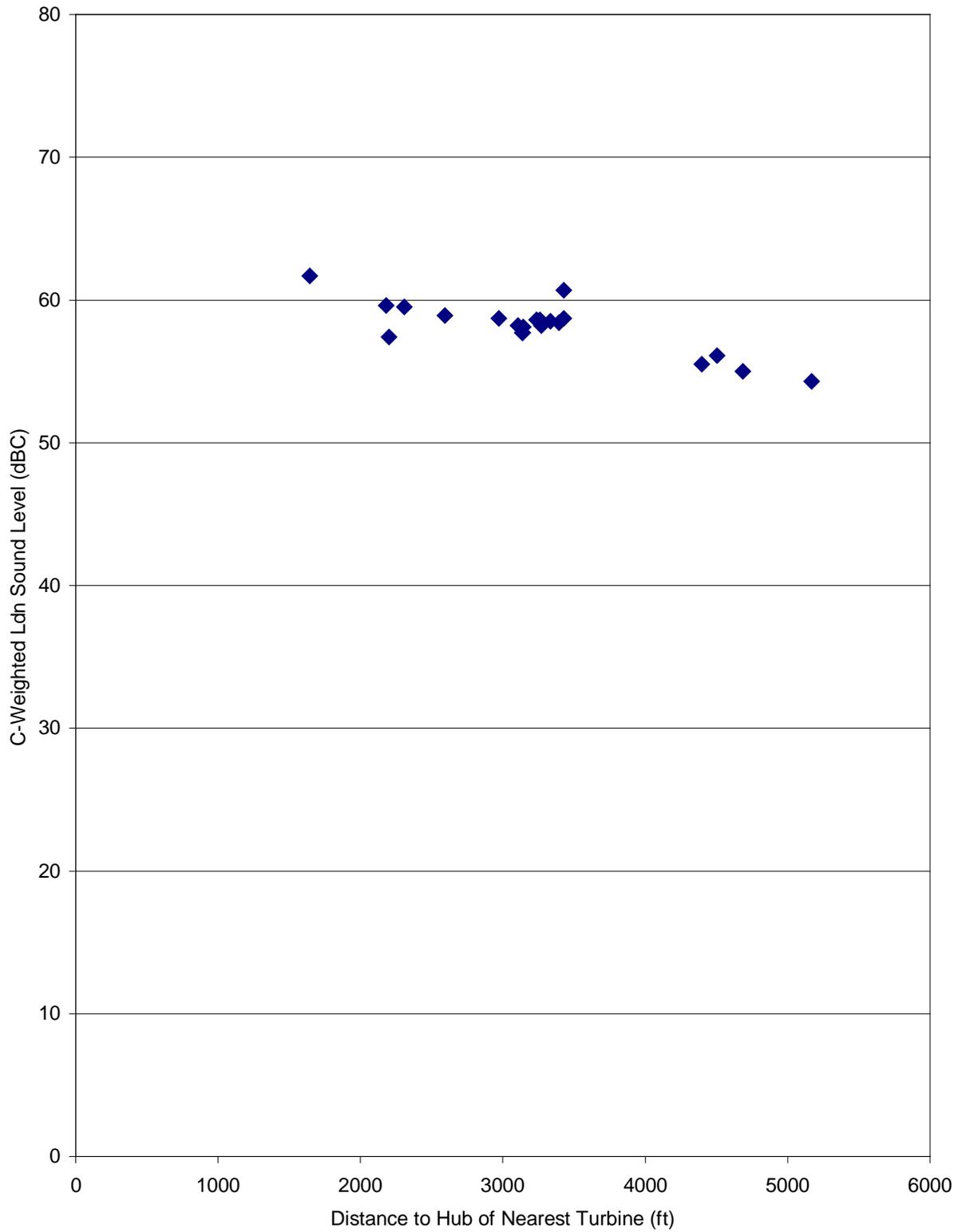


Figure 16. Area Map of Proposed Expansion of Beech Ridge Wind Farm with Estimated Operation C-Weighted Ldn Sound Level Contours Compared to Average Measured Existing Ambient C-Weighted Ldn Sound Levels (dBC) at Locations 1 to 4.

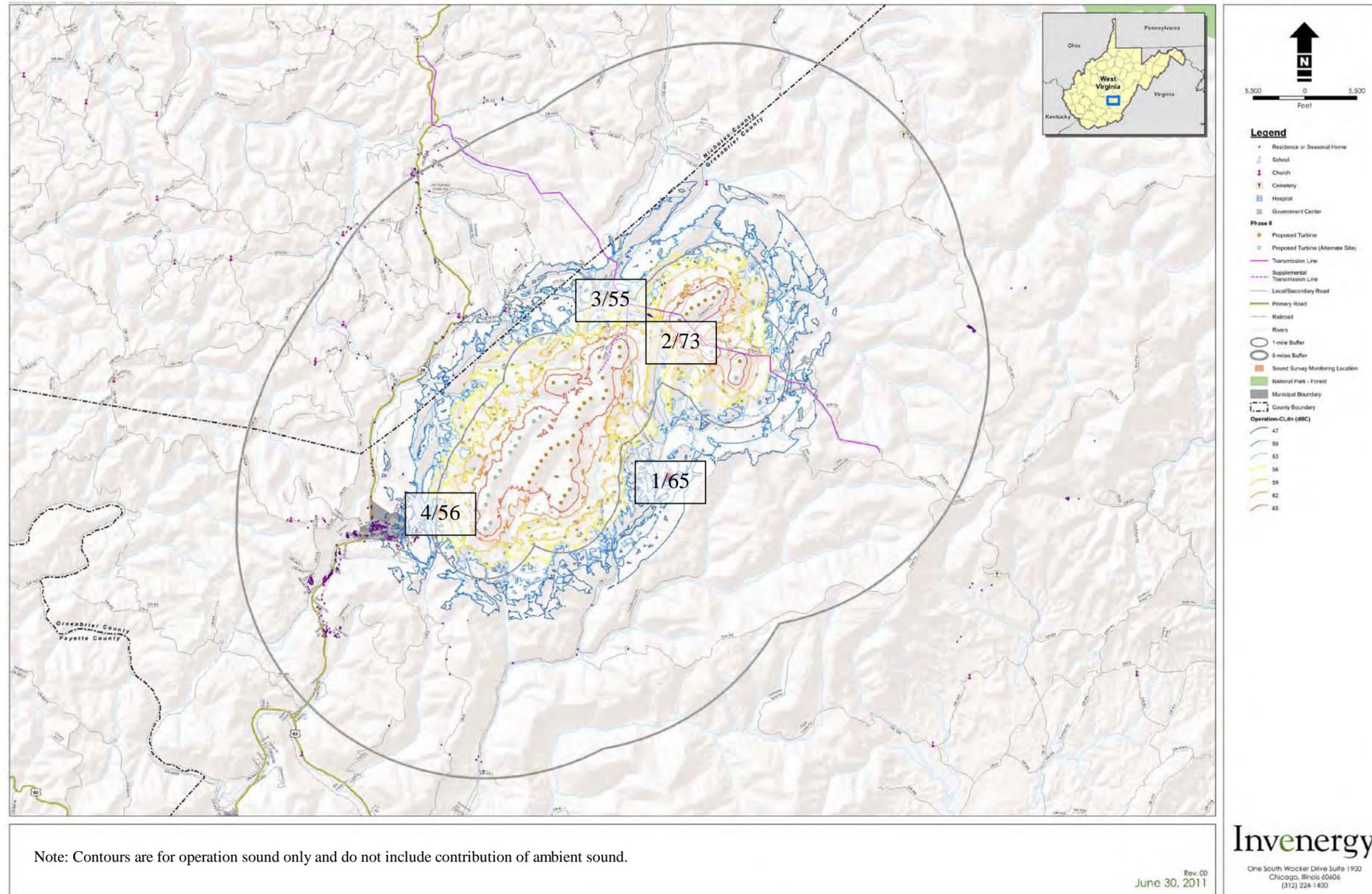


Table 1.
Description of Monitoring Locations for Preconstruction Ambient Sound Survey
(4 - 15 February 2011).

Location	Description	Approx. Dist. (ft.) to nearest WTG
1 – Town of Duo	hamlet with several homes and small church	10,500 (3600*)
2 – Beech Ridge Road	very few scattered rural homes	1600 †
3 – NW of Project Site	near hamlet with several homes	5800
4 – Town of Quinwood	near hamlet with several homes	5000

* Nearest WTG is at existing operating wind facility.

† Monitoring location is closer to a proposed WTG location than the nearest residential structure.

Table 2.
Type of Acoustic Instrumentation Used for Ambient Sound Survey
(4 - 15 February 2011).

Instrument Type	Manufacturer	Model
Continuous Sound Level Monitors	Rion	NL-31 & NL-32
Preamplifiers	Rion	NH-21
1/2" Microphones	Rion	UC-53A
Calibrator	Bruel & Kjaer	4231
Precision Sound Level Meter and Octave Band Analyzer	Rion	NA-27
Preamplifier	Rion	NH-20
1/2" Microphone	Rion	UC-53A
Calibrator	Norsonic	1251

**Table 3.
Summary of Monitoring Locations and Ldn Sound Levels (dBA) Measured during
Ambient Sound Survey (4 - 15 February 2011).**

Location	GPS Reading (UTM)			Dist. to Nearest WTG (ft.)	Ambient Ldn*
	Easting (m)	Northing (m)	Elev. (m)		
1 – Town of Duo	535224	4213961	1033	10,500	48
2 – Beech Ridge Road	535472	4218322	1206	1600 †	50
3 – NW of Project Site	533286	4219763	971	5800	47
4 – Town of Quinwood	527828	4212790	921	5000	48

* Ldn measured for over 255 hours at Locations 1 - 4.

† Monitoring location is closer to a proposed WTG location than the nearest residential structure.

Note that across the four locations, measured average Ldn of 48 dBA with a standard deviation of 1 dBA.

Table 4.
Estimated Equivalent Sound Levels (Leq*) of Representative Construction Equipment at Various Distances.

Equipment	Construction Sound Levels (dBA)			
	1640 ft. †	3330 ft. **	1 mile	5 miles
<u>Phase I – Preparation & Foundation</u>				
Blasting	59††	50††	43††	14††
Pile Driving	58††	49††	42††	13††
Dozer	48	39	32	3
Excavator	49	40	33	4
Trencher	49	40	33	4
Grader	47	38	31	2
Roller	44	35	28	<0
Trucks	43	34	27	<0
Batch Plant	40	31	24	<0
<u>Phase II – Erection & Installation</u>				
Trucks	43	34	27	<0
Crane	49	40	33	4
<u>Phase III – Test & Commission</u>				
Trucks	43	34	27	<0

* Estimated Leq sound levels over a 10-hour daytime shift. 24-hr Ldn would be 4 dBA less than each Leq. Above estimates do not include attenuation due to any terrain shielding (i.e., estimates assume line-of sight to receptor).

† Estimated sound levels at residential structure B-23 in Table 7.

** Estimated sound levels at residential structure GB-0125 in Table 7.

†† Estimated values for blasting and pile driving are maximum (Lmax) sound levels, not Leq.

Reference: ESEERCO Power Plant Construction Noise Guide, BBN Report No. 3321, May 1977.

**Table 5.
Comparison of Average Measured A-Weighted Ldn Sound Levels during
Ambient Sound Survey with Estimated A-Weighted Ldn Sound Levels for WTG Facility (dBA).**

Location*	Dist. to Nearest WTG (ft.)	Average Measured Ambient A-Weighted Ldn	Estimated Facility Operation A-Weighted Ldn
1 – Town of Duo	10,500	48	34
2 – Beech Ridge Road	1600	50	47
3 – NW of Project Site	5800	47	37
4 – Town of Quinwood	5000	48	38

* Comparisons provided for the actual sound monitoring locations; in some areas, residences are located closer or farther from WTGs.

Table 6.
Comparison of Average Measured C-Weighted Ldn Sound Levels during
Ambient Sound Survey with Estimated C-Weighted Ldn Sound Levels for WTG Facility (dBC).

Location*	Dist. to Nearest WTG (ft.)	Average Measured Ambient C-Weighted Ldn	Estimated Facility Operation C-Weighted Ldn
1 – Town of Duo	10,500	65	53
2 – Beech Ridge Road	1600	73	62
3 – NW of Project Site	5800	55	54
4 – Town of Quinwood	5000	56	52

* Comparisons provided for the actual sound monitoring locations; in some areas, residences are located closer or farther from WTGs.

Table 7.
Estimated A-Weighted and C-Weighted Ldn Sound Levels (dBA and dBC) for WTG Facility at Residential Structures within One Mile of Expansion Area.

Residential Structures w/in 1 mile of Expansion	GPS Reading (UTM)			Dist. to Nearest WTG (ft.)	Estimated Facility Operation A-Weighted Ldn (dBA)	Estimated Facility Operation C-Weighted Ldn (dBC)
	Easting (m)	Northing (m)	Elev. (m)			
B-23	535465	4218274	1199	1640	47	62
B-17	535003	4218608	1202	2180	45	60
B-18	535019	4218572	1198	2200	43	57
B-24	535259	4218288	1202	2310	45	60
B-19	534949	4218464	1195	2590	44	59
B-15	534684	4219070	1142	2970	43	59
B-14	534645	4219087	1138	3100	43	58
B-11	534641	4219112	1133	3130	42	58
B-13	534640	4219114	1133	3140	42	58
B-12	534636	4219098	1137	3140	43	58
B-10	534606	4219098	1135	3240	43	59
B-9	534601	4219104	1134	3260	43	59
B-8	534602	4219129	1132	3270	43	58
GB-0125	534579	4219112	1132	3330	43	59
B-7	534563	4219127	1132	3390	43	58
B-6	534557	4219150	1132	3430	43	59
B-16	534635	4218382	1262	3430	44	61
235	528032	4212705	922	4400	40	56
234	528003	4212678	924	4500	40	56
GB-0126	533309	4219424	961	4680	39	55
GB-0128	533341	4219584	952	5170	38	54

Appendix A

Sound in Lay Terms

Sounds we hear come from small pressure oscillations, or sound waves, that travel through the air and actuate our hearing mechanism. These airborne pressure oscillations cause the eardrum and small bones of the middle ear to vibrate. These vibrations are transmitted to the fluid-filled cochlea of the inner ear's sensory organ. Sensory hair cells then transduce these vibrations into nerve impulses that are transmitted to the brain where they are perceived and interpreted.

Noise is often defined as unwanted sound and the degree of disturbance or annoyance of an intruding noise depends on various factors including the magnitude and nature of the intruding noise, the magnitude of the background or ambient sound present without the intruding noise, and the nature of the activity of people in the area where the noise is heard. For example, people relaxing at home generally prefer a quiet environment, while factory employees may be accustomed to relatively high noise levels when at work.

The magnitude, or loudness, of sound waves (pressure oscillations) is described quantitatively by the terms sound pressure level, sound level, or simply noise level. The magnitude of a sound is measured in decibels, abbreviated dB. Decibels are used to quantify sound pressure levels just as degrees are used to quantify temperature and inches are used to quantify distance. The faintest sound level that can be heard by a young healthy ear is about 0 dB, a moderate sound level is about 50 dB, and a loud sound level is about 100 dB. Various common outdoor sound levels are listed below.

130 dBA	Loud siren at 100 feet
95 dBA	Pile Driver at 100 feet
80 dBA	Truck at 100 feet
65 dBA	Lawn mower at 100 feet
60 dBA	Average speech
55 dBA	Automobile 30 mph at 100 feet
50 dBA	Quiet urban daytime
35 dBA	Quiet suburban nighttime
25 dBA	Quiet rural nighttime

Sound energy spreads as it travels away from its source causing the sound level to diminish. Other factors that reduce sound levels include absorption in the atmosphere, diffraction and refraction in the atmosphere, and terrain.

The frequency of a sound is analogous to its tonal quality or pitch. The unit for frequency is hertz, abbreviated Hz (formerly cycles per second or cps). Thus, if a sound wave oscillates 500 times per second, its frequency is 500 Hz. The fundamental frequency of Middle C on a piano keyboard, for example, is 262 Hz. However, most sounds include a composite of many frequencies and are characterized as broad band or random. The normal frequency range of human hearing extends from a low frequency of about 20 to 50 Hz (a rumbling sound) up to a high frequency of about 10,000 to 15,000 Hz (a hissing sound) or even higher for some people. People have different hearing sensitivity to different frequencies and generally hear best in the mid-frequency region that is common to human speech, about 500 to 4000 Hz.

Appendix A Con't.

Sound level meters are usually equipped with electronic filters or weighting circuits, such as specified in standards ANSI S1.4 or IEC 651, for the purpose of simulating the frequency response characteristics of the human ear. The A-weighting filter included with essentially all sound level meters is most commonly employed for this purpose because the measured sound level data correlate well with subjective response to sounds. Sound levels measured using the A-weighting network are designated by dBA.

The background or ambient acoustic environment in most communities varies from place to place and varies with time at any given location due to the composite of many nearby and distant sound sources. The ambient environment includes high sound level single-events such as the passby of an airplane or nearby car, the barking of a dog, thunder, or a siren. The ambient acoustic environment also includes relatively steady residual or background sounds caused by sources such as distant traffic and ventilation equipment. The quantity of the single-event sounds and the amplitude of the background sounds are usually least during the late night hours from about midnight to 5:00 am. Indeed, the ambient sound level at a location is related to the amount of human activity in its vicinity. The amplitude statistics of this rather complex acoustic environment are considered to be non-Gaussian (because of the presence of the lower-level residual background sounds) and non-stationary (because of diurnal and seasonal variations).

At any location, a complete physical description of the ambient acoustic environment might include its sound level at various frequencies, as a function of time. As a first step towards simplifying this multi-dimensional description, it has become common practice to eliminate the frequency variable by measuring the A-weighted sound level (dBA), as observed on a standard sound level meter. The A-weighting filter emphasizes the mid-frequency components of sounds to approximate the frequency response of the human ear. A-weighted sound levels correlate well with our perception of most sounds.

Another weighting network employed in most sound level meters is the C-weighting network. The C-weighted sound level (dBC) slightly de-emphasizes the low and high frequencies relative to the mid frequency components of sound. The de-emphasis of low frequency sound with the C-weighting filter is less than with the A-weighting filter. By comparing an A-weighted sound level (dBA) with a C-weighted sound level (dBC), we can determine the low frequency component of the sound.

An increase or decrease of the outdoor ambient sound level in a community by 1 or 2 dB is generally not noticeable. Whereas a change of the ambient sound level by 5 or 6 dB is generally noticeable and an increase or decrease of the ambient sound level by 10 dB is generally considered to represent a doubling or halving of the perceived sound.

To evaluate impacts and report time-varying ambient sound levels it is common practice, using the A-weighted scale, to measure the equivalent sound level and the day-night sound level. The equivalent sound level (Leq) is the level of a steady-state sound that has the same (equivalent) energy as the time-varying sound of interest, taken over a specified time period. Thus, the equivalent sound level is a single-valued level that expresses the time-averaged total energy of the entire ambient sound energy. It includes both the high-level single event sounds and the relatively steady background sounds. The day-night sound level (Ldn) is simply the average equivalent sound for 24-hours after 10 dBA has been added to the nighttime sound levels from 10pm to 7am. Adding 10 dBA to the nighttime sound levels accounts for people's expectations that nighttime be a quiet period. Both the equivalent sound level and the day-night sound

levels have been selected by the U.S. Environmental Protection Agency (USEPA) as the best descriptors to use for the purpose of identifying and evaluating levels of environmental noise. EPA has identified an Ldn level of 55 dBA as protective of the health and welfare of humans. In addition, the Federal Energy Regulatory Commission (FERC) employs an Ldn level of 55 dBA as its criterion during review of proposed projects.

As part of the application process, the West Virginia Public Service Commission (WVPSC) Guidelines for Noise Studies for Siting Certificates require a project to submit preconstruction ambient Ldn data and facility operation Ldn estimates for review in addition to information on construction noise