



US 219: I-68 (MD) to Meyersdale (PA) Planning and Environment Linkages Study

Garrett County, MD and Somerset County, PA



Meadow Run and fringe wetland



Intersection of US 219 and Route 40 Alternate



Mine portals can provide habitat for rare bat species



Farms are typical to the Study Area



Aerial of the Study Area



Executive Summary

The Maryland Department of Transportation's State Highway Administration (MDOT/SHA) and the Pennsylvania Department of Transportation (PennDOT) through coordination with the Federal Highway Administration division offices in both states collaborated to complete a Planning and Environment Linkages (PEL) study for improving US 219 between I-68 (Maryland) and the Meyersdale Bypass (Pennsylvania). The US 219 PEL study focused on identifying a range of solutions to advance the PEL's Vision of completing Corridor N of the Appalachian Development Highway System (ADHS). Additionally, The PEL will review the corridor to determine if any smaller standalone projects with independent utility and logical termini exist.

The PEL Vision is to assist ARC in working toward the completion of Corridor N of the Appalachian Development Highway System (ADHS) through improvements to the section of US 219 between Meyersdale, Pennsylvania and I-68 in Maryland. The vision includes the desire to generate economic development in previously isolated areas¹, supplement the interstate system through connecting I-68 and the Pennsylvania Turnpike (I-76), connect the study area portion of Appalachia to the interstate system, provide access to areas within the region as well as to markets in the rest of the nation², and improve (the level of) safety for motorists traveling on US 219. The goals and objectives that follow support this Vision and address the PEL study area deficiencies.

Regional & Local Economics Goal: Provide safe and efficient access for the southern Somerset County and northern Garrett County regions in order to improve their economic development potential.

Objectives include:

- Link the Appalachian Region to the rest of the United States and Canada to be consistent with other completed ADHS highways (four-lane, limited access type facility).
- Contribute to the growth of economic development within the Appalachian Region.

Safety Goal: Improve (the level of) safety for motorists traveling on US 219.

Objectives include:

- Reduce traffic volumes on existing US 219.
- Separate heavy truck traffic from local automobile traffic.

¹ Appalachian Development Highway System, www.arc.gov/adhs

² Appalachian Development Highway System, www.arc.gov/adhs



Mobility Goal: Improve mobility in the US 219 corridor.

Objectives include:

- Improve the system linkage between I-68 and the Meyersdale Bypass.
- Provide a facility consistent with adjacent four-lane limited access facilities to the north and south of the study area corridor.

These vision, goals, and objectives are consistent with the goals and objectives of various local and regional planning organizations and agencies.

For the PEL study, a total of 16 (which include the no-build) potential alignments were developed as possible solutions to meet the PEL Vision and Needs. These solutions were evaluated in a three-step process. In Step 1, the solutions were evaluated first to determine if they addressed the study's vision, goals and needs. If the alignment sufficiently addressed the vision, goals, and identified transportation related needs, the alignment then moved on to an environmental and cultural screening, Step 2. The environmental and cultural screening looked at what resource (social, economic, cultural and natural) the alignment would be likely to impact. Alignments that caused impacts that deterred from the goals or desired facility performances for US 219, or that resulted in unreasonable and substantially greater impacts than other available alignments would not be carried into future National Environmental Policy Act (NEPA) project development phases.

Through Steps 1 and 2, eleven alignments were screened out. The four alignments that remained (Alignments AE, D, E and E-Shift) were assessed in Step 3. Step 3 used an expanded footprint to account for preliminary stormwater management facilities, recently collected wetland / stream and bat habitat information, new economic model results, and additional public and agency input (**Figure ES-1**). In Step 3, Alignments D and AE were determined to be unreasonable while Alignments E and E-Shift were deemed reasonable to advance into a future NEPA analysis (**Figure ES-2**). The PEL then looked at whether any stand-alone projects existed within Alignments E and E-Shift that could be advance to NEPA. One potential stand-alone project, from I-68 to just south of Old Salisbury Road in Maryland, was determined to have independent utility and logical termini (**Figure ES-3**). Specifically, the stand-alone concept would:

1. Connect logical termini at I-68 and existing US 219 at the proposed Casselman Farm development, which is part of the CRDC and be of sufficient length to address environmental matters on a broad scope, because the Concept (improvement) would stand on its own as discussed in the following criteria;
2. Have independent utility as the Concept would foster viable transportation access for years to come without any future extensions or enhancements as it serves a known and progressing economic development area and would address safety concerns from increasing truck traffic in a location already inundated with trucks from the interchange (I-68) and truck stop area that includes surrounding highway related services (fast food restaurants, hotel, etc.); and



3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements, as the Concept can stand on its own and has been selected through this PEL study as part of the alignment that best addresses the overall corridor needs and minimizes environmental impacts within the entire corridor from I-68 in Maryland to Meyersdale, Pennsylvania.

It is important to remember that, although PEL studies may recommend alignments for implementation or elimination, the final determination regarding elimination and reasonable alternatives is made during the NEPA process.

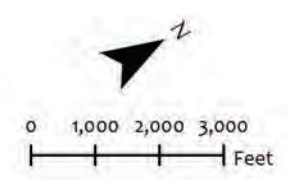
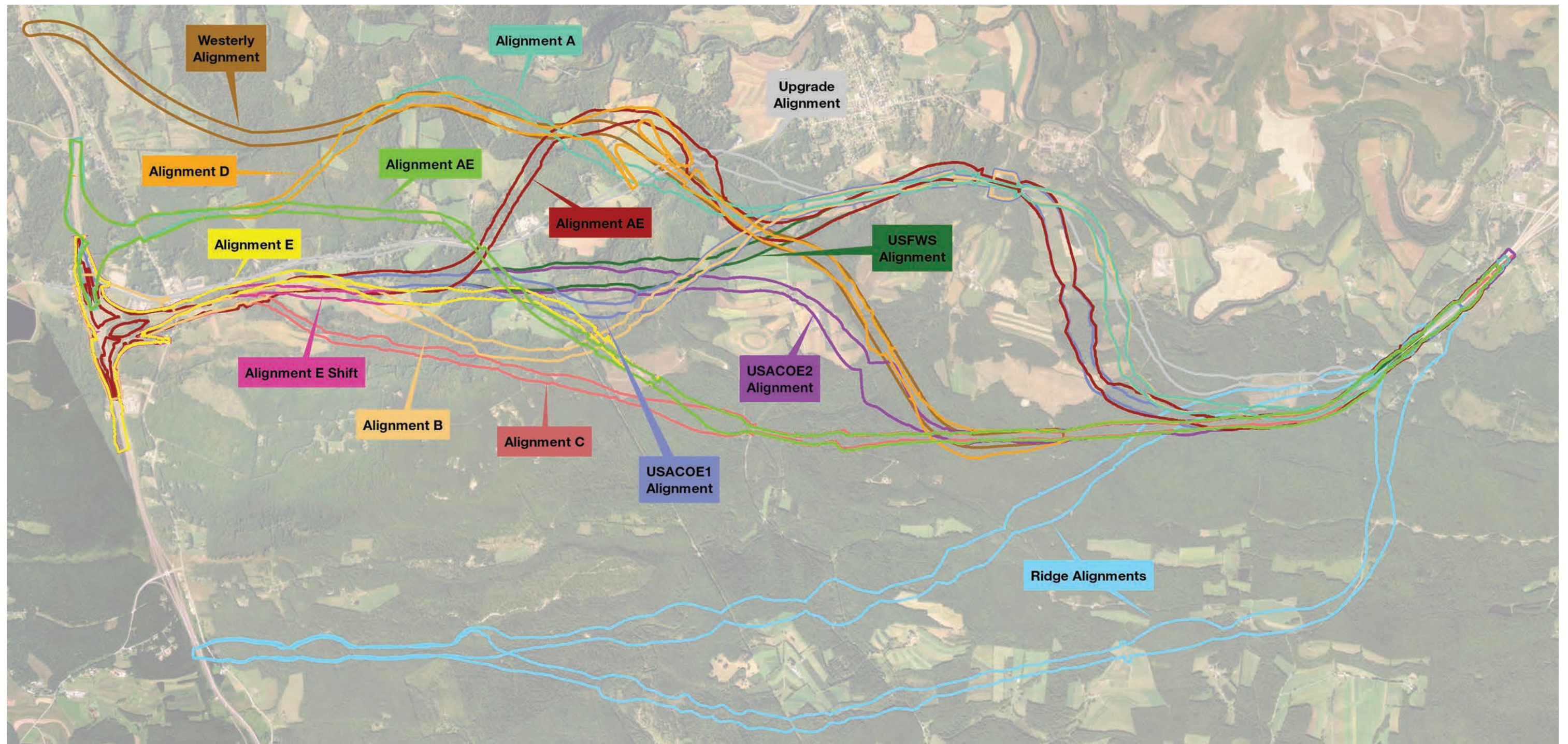
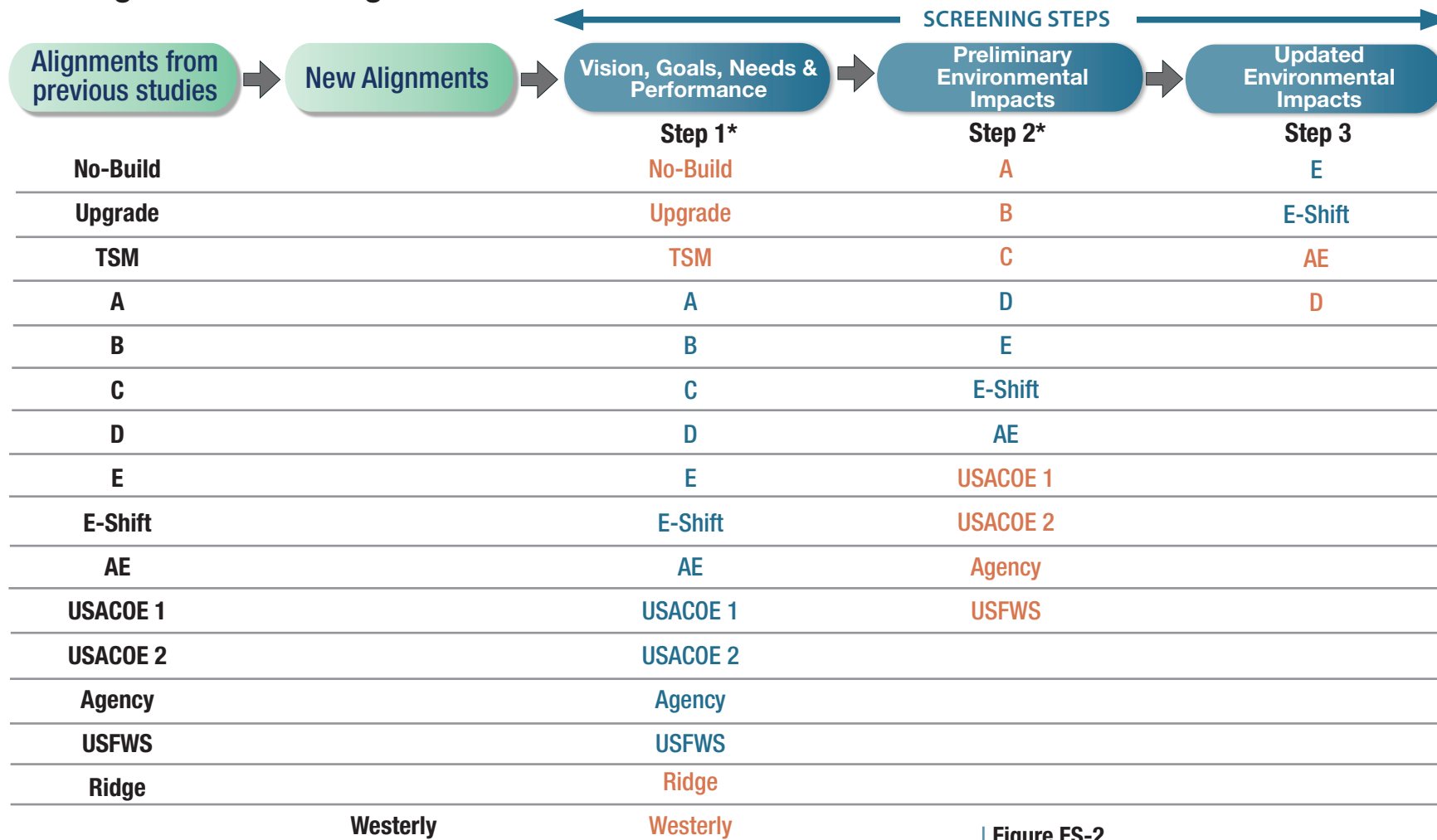


Figure ES-1
Alignments Under Consideration
 US 219, Section 019
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland

Planning & Environmental Linkages

PEL Alignment Screening Process Results



Considered reasonable at this step
Considered unreasonable at this step

* See Chapter 6

Figure ES-2
PEL Alignment Screening Process Results

US 219, Section 019
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



● Alignment E & E Shift Concept Casselman Farm

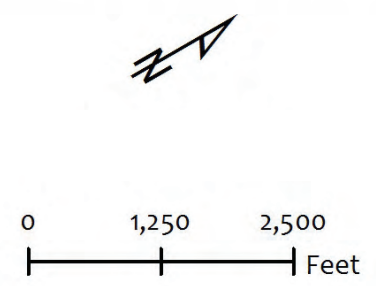


Figure ES-3
General Stand-Alone Project Concept
US 219, Section 019
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



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Chapter 1 – Introduction to Planning and Environment Linkages (PEL)

1. What is a Planning and Environment Linkages (PEL) Study?

A Planning and Environment Linkages³ (PEL) study represents an approach to transportation decision-making that considers environmental, community, and economic goals early in the planning stage, and carries them through project development, design, and construction. PEL studies provide an opportunity to create a seamless decision-making process that:

- fosters a collaborative and integrated transportation decision-making process;
- minimizes duplication of effort;
- promotes environmental stewardship; and
- reduces delay in project implementation.

PEL studies are often conceptual level studies that can help determine whether there is a need for a transportation project. The basis for the study is an accurate and inclusive identification of the environmental and community goals for the area. The studies can help to identify the vision, goals, objectives, and needs for the study area. The geographic limits of the study, the basic description of the environmental setting, development trends or changes in land use, modes or alternatives may also be identified. A study engages the community and stakeholders in a process of thinking about the area's future and then documents those results as the basis for future planning and project development.

PEL studies may be used to identify projects for inclusion in the statewide or metropolitan long-range transportation plan. Among the solutions that are often considered are potential improvements on existing facilities. This exploration of solutions, if documented appropriately, may help project sponsors to determine the type of environmental document that will be necessary for a proposed improvement that requires state or Federal Highway Administration (FHWA) approval. As a result, corridor and subarea studies are often an attractive way to explore an area's needs and potential solutions in preparation for initiating the NEPA process for a proposed project.

The PEL approach, which can include studies such as corridor studies and solutions/alignment screening, is a targeted analysis that addresses specific needs of a corridor or particular geographic area. The content of a PEL study will vary based on the actual study area itself and the study's purpose, but generally, a corridor study would include:

³ Linking Planning and the National Environmental Policy Act (NEPA) in Pennsylvania



- A reason for conducting the study, including the main issues affecting system performance;
- A clear definition and justification for the study area boundaries, including a description of study area resources and potentially affected stakeholders; and
- A budget, schedule, and list of expected products arising from the study.

Products that may come out of the study include:

- goals, objectives, and evaluation measures for the corridor;
- alternative strategies to address identified problems;
- an analysis of forecasted impacts of these alternative strategies in terms of environmental, transportation, and financial impacts; and
- an evaluation of how each alternative strategy addresses the specified problems of, and goals and objectives for, the corridor.

A PEL study helps in addressing fiscal challenges. When faced with fiscal challenges, transportation agencies need to efficiently and effectively prioritize investments. Sometimes agencies initiate NEPA analysis on transportation projects before enough is known about the transportation need and options for addressing it, or about major constraints that will affect the scope and nature of any proposed solution. In such cases, the NEPA process is used to address broad planning-type questions. The PEL approach can better address these questions by enabling agencies to cost-effectively identify transportation and environmental needs early in planning.

By starting with a more conceptual level of analysis, planning studies allow agencies to explore transportation needs in more detail and the options available for development of projects, such as possible solutions, including non-traditional transportation solutions. Fiscal constraints can also be addressed by more thoroughly evaluating logical termini and independent utility, which may allow for smaller projects that can be completed as funding becomes available. PEL studies better address budget constraints by establishing a framework for development of the full corridor and the prioritization of component improvements.

It is essential to start the planning process with all partners at the table – the public, local governments, transportation agencies, resource agencies and other stakeholders. As part of the long-range transportation planning process, Departments of Transportation (DOTs), and Metropolitan [and Rural] Planning Organizations (MPOs [RPOs]) should consult [as appropriate] with various State and local agencies responsible for land use, natural resources, environmental protection, conservation, and historic preservation. Bringing these same players into the corridor planning process can yield better planning recommendations and help build relationships between agencies that support further integrated planning efforts.



The PEL study is conducted as part of planning, and occurs prior to and separate from NEPA. During PEL, no "project"-studies are conducted to determine if a potential project exists. Data collected and analyzed during the PEL study can be used during future project development, as funding for improvements becomes available. PEL allows for an analysis of optional study alignments, and consideration as to whether portions of those alignments can be cleared environmentally, designed and constructed as stand-alone independent projects. Stand-alone projects identified during the PEL study must have independent utility, have logical termini and not restrict potential options for future reasonably foreseeable transportation improvements.

PEL studies must adhere to the regulations formalized in the *Statewide Transportation Planning; Metropolitan Transportation Planning; Final Rule* (23 CFR 450), which describes how transportation planning study decisions and results may be used to be consistent with NEPA. In addition, this PEL study was developed using the following Federal Highway Administration (FHWA) guidance:

- Guidance on Using Corridor and Subarea Planning to Inform NEPA, April 5, 2011
- A Reference for Linking Planning & NEPA, Version 1.0, September 20, 2013
- Planning & Environment Linkages Implementation Resource, September 2008

Resource and Regulatory Agencies Role

Early consultation with resource and regulatory agencies can help integrate resource agency goals and plans into the transportation planning process. Consultation may involve comparisons of transportation plans with State conservation plans and inventories of natural/historical resources. Resource agencies have in-depth knowledge of the environmental issues that may affect an area and may have more up-to-date information available than is contained in their agency plans. In addition, a number of useful software tools can help incorporate land use, economics and ecological/geophysical modeling into the planning process.

Transportation NEPA Practitioners Role

Transportation NEPA practitioners typically focus on environmental analysis and review, and are not involved in the preparation of transportation planning documents. When NEPA practitioners are involved in the PEL planning studies, and understand its value and intended use, it may result in a better and more efficient project delivery.

Independent Utility

The project must be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.

Logical termini

- (1) rational end points for a transportation improvement
- (2) rational end points for a review of the environmental impacts

Source: FHWA's NEPA and Transportation Decision making, "The Development of Logical Project Termini," November 3, 1993.



Planning and Development Partners Role

Engaging partner agencies and local staff involved in land use planning, community development, and housing can help ensure that the resulting transportation plans are consistent with, and supportive of other plans for the area. Additionally, these agencies and staff may have experience working in the community and may be able to identify important local stakeholders, and long-standing issues.

Other Stakeholders Role

As in all good planning work, it is crucial to have early and extensive outreach to the general public, elected officials, advocacy groups, businesses, and other interested parties. An inclusive public involvement process not only improves the likelihood that the study will be acceptable for use during NEPA, it can lead to more public support. Continual public participation helps avoid unexpected challenges during future actions and build consensus when balancing competing needs.

2. What is the Study Location and Description?

The US 219 PEL study area extends approximately eight miles from the southern end of the Meyersdale Bypass in Somerset County, Pennsylvania south to Interstate 68 (I-68) in Garrett County, Maryland. The study area encompasses portions of Elk Lick and Summit Townships in Somerset County, Pennsylvania, and the northeastern corner of Garrett County, Maryland. **See Figure 1-1, Study Location Map.** The study area is mostly rural, with residential and small commercial facilities, as well as larger amounts of forested areas and farmland. The Borough of Salisbury, Pennsylvania is located within the central portion of the study area. The study area for each alignment is further defined in Chapters 6 and 7.



Planning & Environmental Linkages

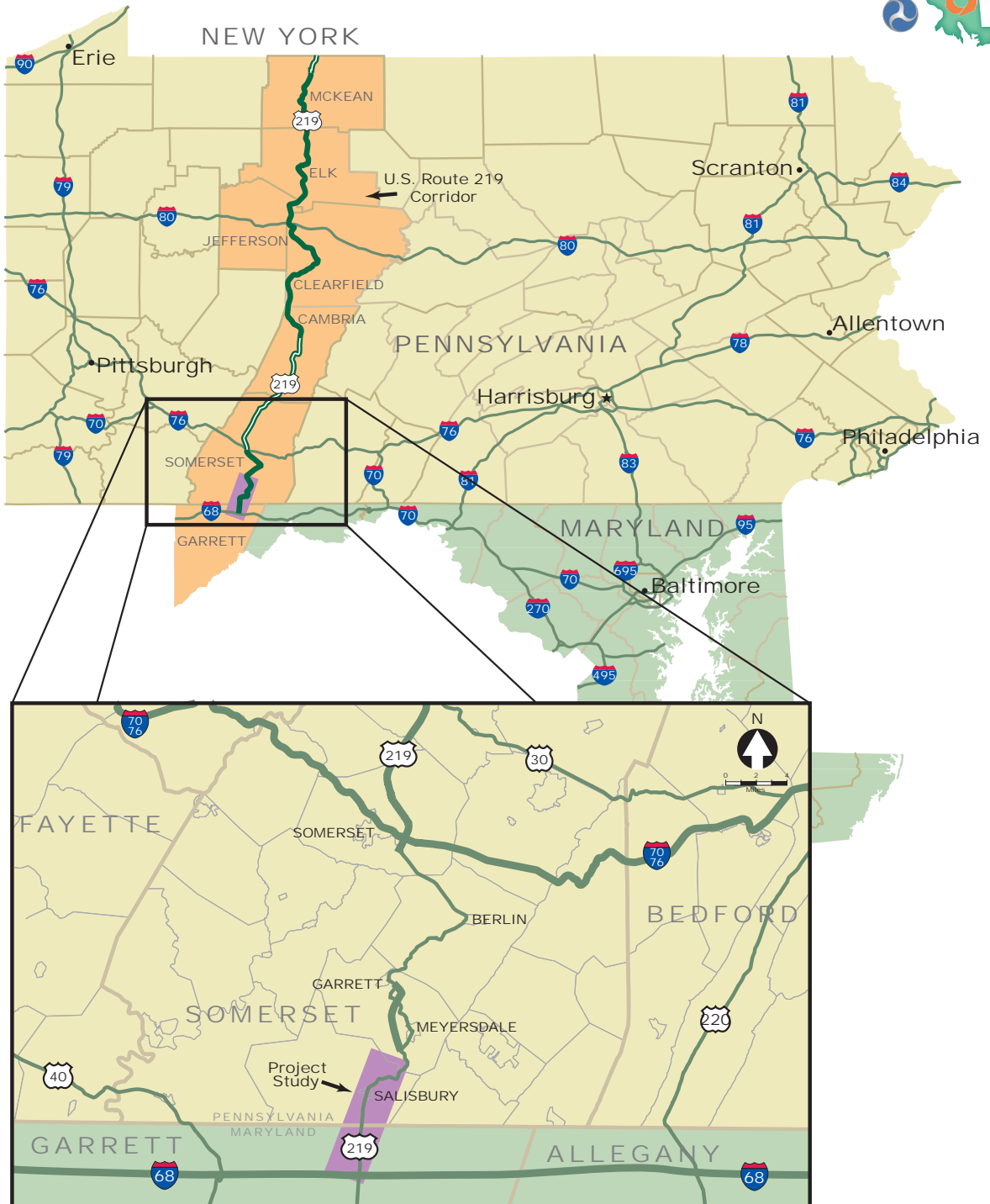


Figure 1-1
US 219 Study Location Map

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland

Legend:

- Study Area



3. Has the study area been evaluated previously?

During the 1990's, PennDOT was pursuing improvements to US 219 south of Somerset, Pennsylvania. Studies at that time identified the five-mile section of US 219 through Meyersdale, Pennsylvania as the most immediate transportation problem in the area. The Meyersdale Bypass project was constructed in 1998 as a four-lane, limited access highway located to the west of existing US 219 in the vicinity of Meyersdale Borough and Summit Township, Somerset County, Pennsylvania.

The *Needs Analysis, US 219, I-68 (Maryland) to Somerset, Pennsylvania* (1999) identified two projects, each with independent utility and logical termini, along the section of US 219 from the end of the existing four-lane US 219 near Somerset, Pennsylvania to I-68 in Maryland. These projects were:

- US 219, Section 020 (Somerset to Meyersdale, Pennsylvania); and
- US 219, Section 019 (Meyersdale, Pennsylvania to I-68 in Maryland).

Preliminary engineering and a Draft Environmental Impact Statement (DEIS) for US 219, Section 019 originally began in 2001 by PennDOT and MDOT/SHA, but was put on hold in 2007 due to funding constraints. As a result, the document went unpublished. Since that time, PennDOT has begun construction of US 219, Section 020, from the Meyersdale Bypass north to the existing four-lane section of US 219 near Somerset that connects to the Pennsylvania Turnpike and beyond US 22. Thus, by 2018, this study area section of US 219 will be the only remaining two-lane, non-limited access section in over 70 miles of four-lane expressway.

On July 23, 2014, a revised Notice of Intent (NOI) was published in the Federal Register to prepare an Environmental Impact Statement (EIS) for the former NEPA efforts. That NOI has been rescinded; given the new direction to complete a PEL study for the US 219 corridor. Maryland SHA has committed funding for a potential stand-alone project within the state limit, while PennDOT is unable to do so.

If the state transportation agencies had continued with the former NEPA efforts, and had selected a build alternative, FHWA would not be able to render a location approval because the project would not meet the planning requirements outlined in 23 CFR 450. FHWA, MDOT/SHA, and PennDOT collaborated to find a solution that would allow improvements to this section of US 219 to move forward while meeting all applicable state and federal requirements. This solution is PEL, which allows the transportation agencies, resource agencies and the public to work together to identify goals and objectives, identify deficiencies and needs, develop possible solutions/alternatives, develop a basic description of environmental setting, conduct a preliminary screening of solution, eliminate unreasonable solutions and/or complete a preliminary identification of environmental impacts and environmental mitigation. In addition, the PEL study allows addressing of fiscal constraints by potentially breaking larger potential projects into smaller stand-alone components that can be completed, as funding becomes available,



and as long as each component has logical termini and independent utility. The PEL study is initiated to determine which reasonable alignment(s) should move forward into the NEPA process, and to see if stand-alone projects with independent utility and logical termini can be identified for future NEPA evaluation.

Substantial amounts of environmental field work, and engineering studies were completed during the previous NEPA studies. All previously completed analyses and studies will be used in the PEL study, as appropriate, to help make an informed decision on what alignment(s) to carry into the NEPA process, and whether any portions of those alignments can be designed and constructed as stand-alone projects. Any additional data needed will be obtained from existing data sources, such as the National Wetland Inventory, National Hydrography Dataset, and the National Land Cover Dataset.

4. PEL Scope

As stated above, the PEL study will allow for the development of a vision and goals, and a screening of possible alignments. The detailed scope of the PEL process follows the five steps shown in *Figure 1-2*, and is described below.

Vision and Goals (Step 1)

This step included:

- Identification of the PEL Vision, Goals and Objectives.

Deficiencies & Needs (Step 2)

This step consisted of an evaluation of available data sources and knowledge of the study area to:

- Identify transportation related deficiencies and needs within the study area; and
- coordination with regional and county planning agencies to evaluate, in more detail, the economic need within the county, and what impacts the different alignments could have on regional and county economics (both positively and negatively).

Development of Possible Solutions (Step 3)

This step included:

- Collection of readily available data / information to assist with development of solutions;
- public input into solutions was completed through three avenues: a Community Advisory Committee (CAC), meetings with parties interested in historic resources, and Public Meetings / Public Information Workshops; and
- a fatal flaw analysis based on the readily available data, identified areas where no alignments should be located.



Key Steps in PEL



Figure 1-2
Key Steps in PEL

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Solutions Evaluation & Screening (Step 4)

This step included:

- Screening of possible solutions to determine how well they meet the established vision and goals;
- identifying resources most likely to influence the decision on which alignment(s) to continue to support;
- analysis of alignments to determine what could move forward into the NEPA process; and
- coordination with federal and state environmental resource agencies, in both Maryland and Pennsylvania, to share information, discuss potential impacts, and strategize on potential avoidance, minimization and mitigation measures. The US 219 PEL study was discussed at Maryland Interagency Review Meetings (IRM) and Pennsylvania Agency Coordination Meetings (ACM) in 2014, 2015 and 2016.

Solution(s) to Move Forward to NEPA (Step 5)

- After careful analysis of the study results, agency discussions, and public input, the alignment(s) that would be carried forward into the NEPA process were identified. As part of this process, MDOT/SHA and PennDOT evaluated whether stand-alone, smaller, subsequent projects existed that had logical termini and independent utility.

5. Interconnection between PEL and NEPA

The linking of the Planning and NEPA processes through use of the PEL process has the potential to help ensure that the right potential projects move forward, considering existing fiscal and regulatory constraints. The concept can be applied to all sizes of potential projects and can strengthen the linkage between Planning and NEPA by providing the proper analysis and document to (See **Figure 1-3**):

- Build a foundation for the NEPA study's Purpose and Needs;
- Provide input on the desired performance for the study area's transportation network;
- Identify the environmental context of the study area; and
- Screen potential solutions that may not be reasonable to study in NEPA.

The PEL document will be used as the starting point for the NEPA analysis and will help streamline the NEPA decision-making process. During the NEPA analysis, all reasonable alternatives will be screened based on performance measures, and include the ability to meet the project purpose and need, environmental impacts/mitigation, and other goals and objectives.

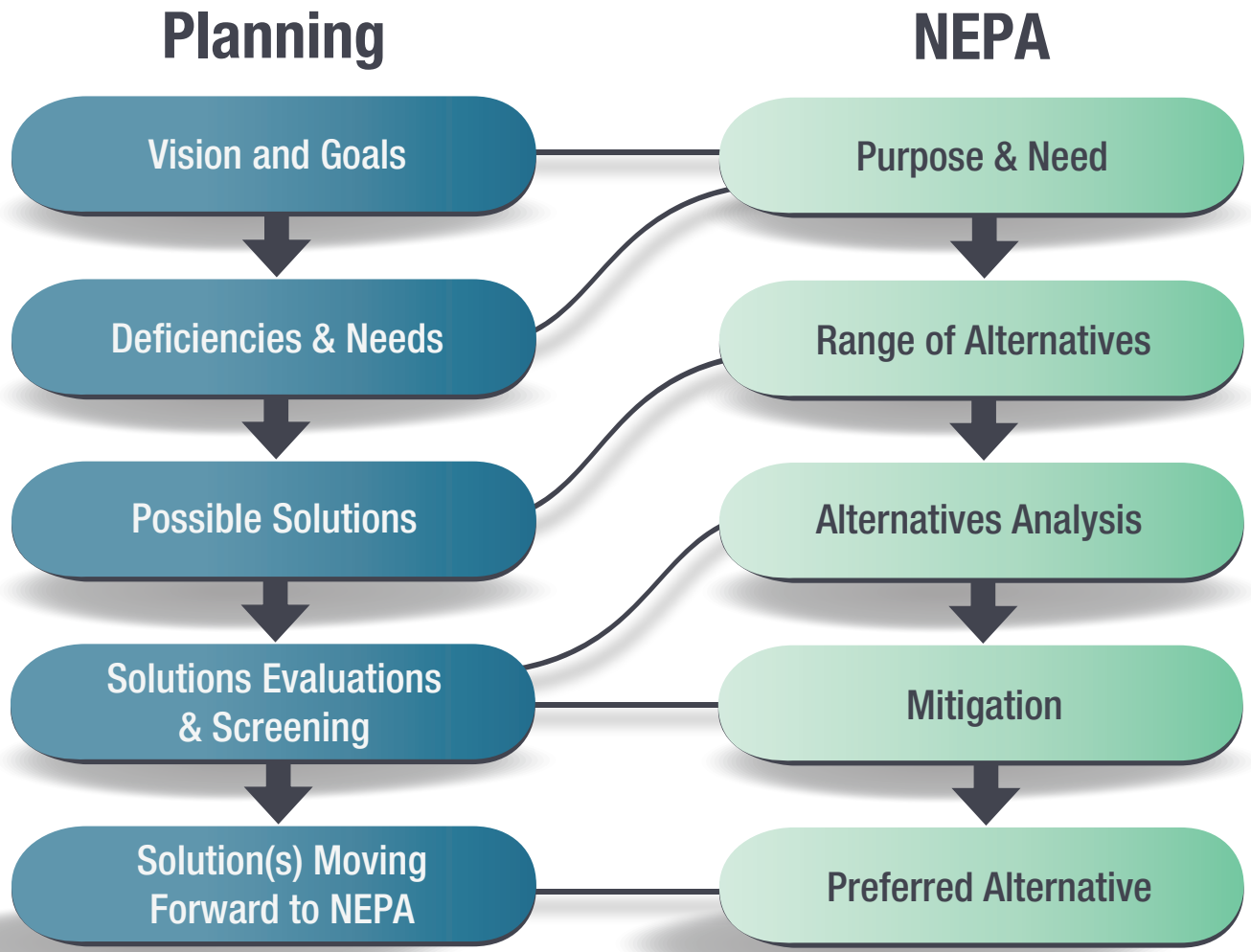


Figure 1-3
Planning Foundation for NEPA

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Chapter 2 – PEL Vision and Goals

1. Vision and Goals

Improvements to US 219 have been pursued by local, state, and regional agencies / organizations for decades. The existing four-lane facility from Ebensburg to Somerset, Pennsylvania was constructed during the 1970's and 1980's. The Meyersdale Bypass was built in the late 1990's and construction is currently (2016) ongoing for the section from Somerset, Pennsylvania south to Meyersdale, Pennsylvania. This PEL study focuses on the section of US 219 from Meyersdale, Pennsylvania south to I-68 in Maryland.

It is important that each dollar allocated to transportation is vetted through regional planning organizations and understood and supported by the community. A vision statement defines the long term goal of an organization. It should state the desired outcome of a study.

This PEL study serves two purposes: to evaluate the US 219 corridor from Meyersdale, Pennsylvania to I-68 in Maryland to determine what possible solution(s) (alignment(s)) would best address the vision, goals, objectives and deficiencies (needs) of the study area; and to evaluate whether any potential stand-alone project(s) exists, with independent utility and logical termini.

The vision and goals, and the deficiencies (needs) and performance measures discussed in Chapter 3 of this PEL study, focus on the corridor as a whole. The corridor-wide focus is vital to ensure that any potential stand-alone project(s) that may exist could be incrementally developed to realize the overall vision and goals. Additionally, the study allows for a more thorough evaluation as to what environmental consequences may result from incremental corridor development through smaller stand-alone projects.

Visions and goals have not been developed for any potential stand-alone projects. Any potential stand-alone project(s) that may arise from this study would simply contribute incrementally to the realization of the larger corridor vision and goals. Similarly, specific deficiencies/needs for potential stand-alone projects would be developed during NEPA, should any project move forward.

The vision of this study is to assist ARC in working toward the completion of Corridor N of the Appalachian Development Highway System (ADHS) (**See Figure 2-1, ARC ADHS & Corridor N (US 219)**) through improvements to the section of US 219 between Meyersdale, Pennsylvania and I-68 in Maryland. The vision includes the desire to:



- Generate economic development in previously isolated areas,⁴
- Supplement the interstate system through connecting I-68 and the Pennsylvania Turnpike (I-76),
- Connect the study area portion of Appalachia to the interstate system,
- Provide access to areas within the region as well as to markets in the rest of the nation,⁵
- Improve (the level of) safety for motorists traveling on US 219.

This vision is supported by the Maryland Department of Transportations' State Highway Administration, the Pennsylvania Department of Transportation, and the Federal Highway Administration.

The Maryland Department of Transportation (MDOT) is allocating \$90 million in federal ADHS funds to any potential stand-alone US 219 improvement project(s). MDOT's goals and objectives for this PEL study (discussed in detail in the following sections), which will inform the planning and design of any potential stand-alone project, include increasing mobility and access, and encouraging economic development. These goals and objectives align with the Appalachian Regional Commission's ADHS goals and objectives, which include generating economic development and increasing access both within and outside Appalachia.

The study goals and objectives that follow support this vision. Goals include:

Regional & Local Economics

Goal: Provide safe and efficient access for the southern Somerset County (Pennsylvania) and northern Garrett County (Maryland) regions in order to improve their economic development potential.

Objectives:

- Link the Appalachian Region to the rest of the United States and Canada to be consistent with other completed ADHS highways (four-lane, limited access type facility).
- Contribute to the growth of economic development within the Appalachian Region.

Safety

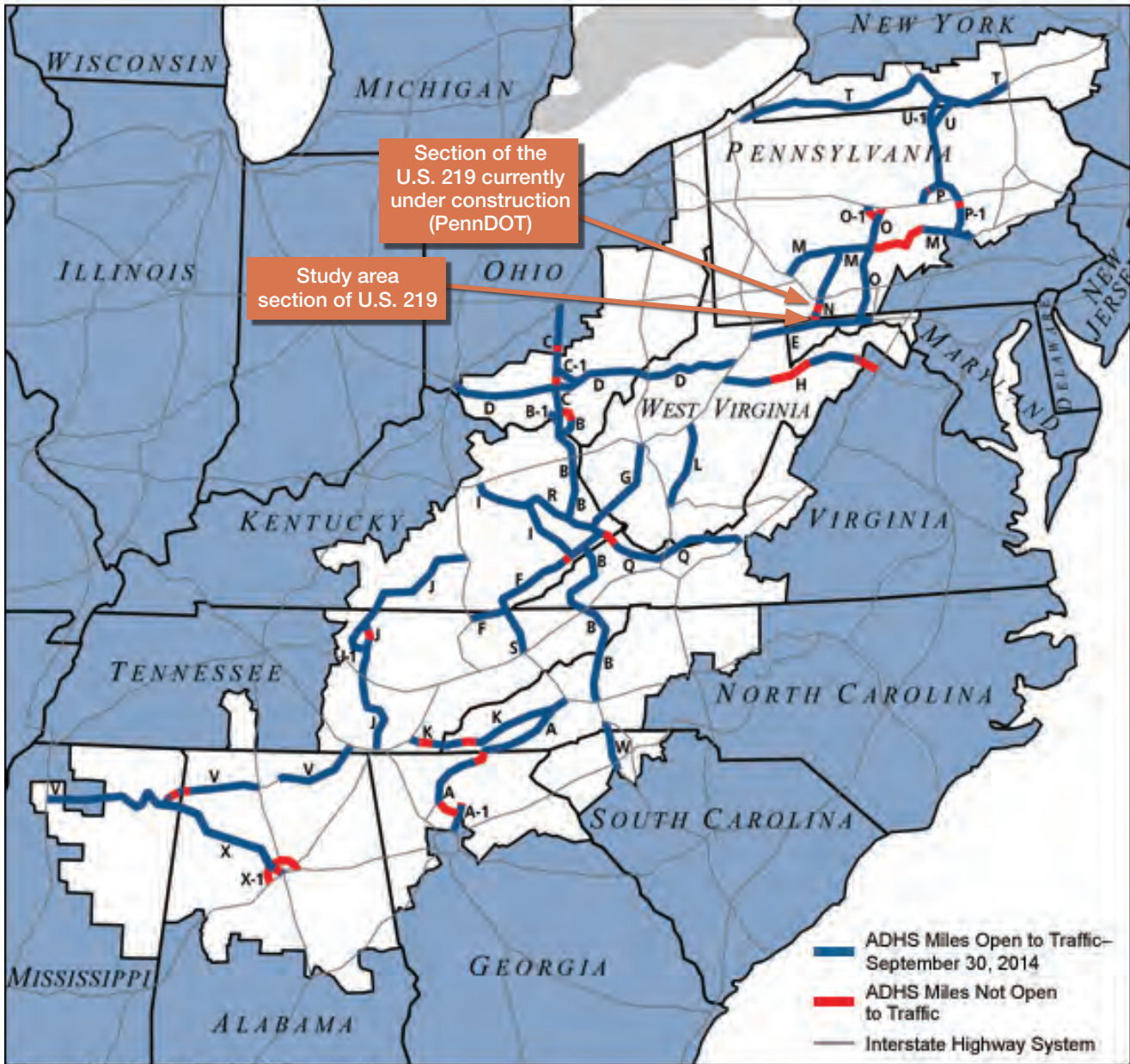
Goal: Improve (the level of) safety for motorists traveling on US 219.

Objectives:

- Reduce traffic volumes on existing US 219.
- Separate heavy truck traffic from local automobile traffic.

⁴ Appalachian Development Highway System, www.arc.gov/adhs

⁵ Appalachian Development Highway System, www.arc.gov/adhs



Source: Appalachian Regional Commission

Figure 2-1
ARC ADHS and Corridor N (US 219)

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Mobility

Goal: Improve mobility in the US 219 corridor.

Objectives:

- Improve the system linkage between I-68 and the Meyersdale Bypass.
- Provide a facility consistent with adjacent four-lane limited access facilities to the north and south of the study area corridor.

The vision, goals and objectives are consistent with the goals and objectives of various local and regional planning organizations, as discussed in the following two sections.

2. Supporting Plans

Appalachian Regional Commission

The Appalachian Regional Commission (ARC) supports the need for improvements to the US 219 corridor as a vital transportation link needed to improve economic and social conditions (community capacity), and critical infrastructure in the Appalachian Region. US 219 is one of ARC's priority corridors (Corridor N) on their Appalachian Development Highway System (ADHS). **See Figure 2-1, ARC ADHS & Corridor N (US 219).** ARC intends the ADHS to be a system of interstate type highways linking the Appalachian Region to the rest of the US and Canada. A 1960s era ARC study (*A Report by the President's Appalachian Regional Commission, 1964*⁶) found that the Nation's Interstate Highway System has mostly bypassed the Appalachian Region. This isolation hinders the economic parity and social development with the rest of the country, and its ability to compete in the global economy.

Support for development of the ADHS can also be found in federal legislation. MAP-21 specifically states in Section 1528 (a) that "it is the Sense of the Senate that that the timely completion of the [ADHS] is a transportation priority in the national interest."⁷ In addition, while developing the current funding legislation (FAST Act), a Congressional Committee, in one of the drafts of the act, stated that the Committee continued to support the MAP-21 Sense of the Senate viewpoint.⁸

The ADHS is a network of highways providing essential transportation access for improving the Appalachian Region's (the Region) economic position. Historically the Region has been economically depressed. In 2012, the Appalachian Region overall had an unemployment rate of 8.1%, which is consistent with the remainder of the United States. However, the Region had a lower 2012 per capita income (\$27,359), and higher poverty rate (16.6% from 2008 - 2012) than the remainder of the US (per

⁶ <http://www.arc.gov/noindex/aboutarc/history/parc/PARCFront.pdf>

⁷ <https://www.gpo.gov/fdsys/pkg/PLAW-112publ141/html/PLAW-112publ141.htm>

⁸ http://thomas.loc.gov/cgi-bin/cpquery/?&sid=cp114BcLxo&r_n=sr080.114&dbname=cp114&&sel=TOC_70549&



capita income \$36,223 in 2012 and poverty rate 14.9% from 2008 - 2012). For these reasons, it is ARC's intention that the ADHS network contribute to the economic value and development of the Appalachian Region. The study area counties had unemployment rates from 2010 to 2012 (7.9% in Garrett County, Maryland and 8.9% in Somerset County, Pennsylvania) that were comparable to the Regional (8.9%) and United States (8.9%) totals. Garrett (Maryland) and Somerset (Pennsylvania) counties, in 2012, had a lower per capita income (\$31,830 and \$25,144, respectively) than the average in the United States (\$36,223). The poverty rates (13% in Garrett County, Maryland and 13.1% in Somerset County, Pennsylvania) were lower than the United States (14.9%) and Regional (16.6%) totals from 2008 to 2012. ARC stresses the importance of having good access and efficient transportation, which will allow the Region and its residents to better compete for economic activity. This will in turn improve living conditions in Appalachia.

The ADHS consists of 26 highways selected because they are links between key regional centers and national markets. The goal of the ADHS was to provide efficient commerce flow, facilitate commuting to jobs and public services, and open up development sites. To determine whether the ADHS corridors were capable of achieving these goals, ARC conducted a study of the 12 completed (upgraded to 4-lane) corridors⁹ to determine how they have benefited the region, specifically through transportation efficiencies and economic value and development (see ARC's July 1998 report "Appalachian Development Highways Economic Impact Studies"). Figure 2-1 shows the ADHS corridors and areas still to be completed (red). The 12 completed corridors include: B-1, C-1, D, E, G, I, J-1, L, S, T, U and W.

The 1998 study found that for every \$1.00 invested in an ADHS corridor, \$1.18 was returned in traffic efficiency benefits (reduced travel time, costs, and accidents due to widening from 2-lanes to 4-lanes and increasing posted speed limits) and \$1.32 returned in economic development. The study also concluded that investment in ADHS corridors created jobs, increased the region's productivity, increased economic opportunity, made the region more competitive for those opportunities, and improved living standards for the Appalachian people, even those who do not use the roads, by increasing the availability and quality of jobs.

This study proved that the 12 completed corridors had a positive impact on the Region and were fiscally responsible investments. The North-South Appalachia Corridor Feasibility Study (2001 - Updated in 2010) (see below) showed US 219 as the corridor with the most potential for job creation north of I-68 within the ADHS system. These results suggest a need to improve the study area corridor to help improve economic and living conditions in the depressed Appalachian Region, which extends from New York state to Mississippi and Alabama.

⁹ Note that while 12 corridors have been completely upgraded to four-lane highways; overall, 80% of the total 3,090 miles of ADHS highways have been upgraded.



Further support for the economic development potential of the ADHS comes from the following:

- A 1987 ARC Survey of job growth between 1980 and 1986, which showed that 81% of job growth in Appalachia occurred in counties with interstate or improved ADHS highways.
- A 1994 University of North Carolina Professional Geographic Study (Tyrell Moore) that found a moderate to strong correlation between income growth and the presence of improved highways in Appalachia.
- A 1995 West Virginia University National Science Foundation Study that found that Appalachian counties with improved ADHS corridors grew 69 percentage points faster in income, 6 percentage points faster in population and 49 percentage points faster in earnings. Rural counties, such as Somerset (Pennsylvania) and Garrett (Maryland) counties, with improved ADHS corridors fared even better.
- A June 2008 report (Economic Impact Study of Completing the Appalachian Development Highway System, Final Report) stated that:
 - Improvements in market accessibility for the ARC region will directly lead to increased economic development opportunities for the region.
 - ADHS corridor improvements will produce significant dollar values of travel benefits to individuals and businesses both within and outside the ARC region.
 - Completion of the ADHS will result in a significant reduction in travel time for personal, business, and long-distance freight trips.
 - The improvements on the to-be-completed ADHS segments will result in a significant increase in traffic using largely rural interstates and expressways.

Although the Appalachian Region is economically depressed; it has much to offer from a quality of life standpoint, including recreational (ski resorts, fishing, boating, state parks, hiking and biking trails including rails-to-trails) and cultural (scenic highways and vista and historical districts) opportunities. Safe, efficient highways promote greater accessibility to these types of features for increased tourism. Tourism of this nature, based on the wild, natural and cultural value of an area, helps promote conservation of these types of resources to sustain and further encourage tourism.

The 1998 ARC Study also evaluated the potential of the ADHS to influence tourism. The economic impact from tourism (money spent on shopping, lodging, recreation, dining and other amusements) due to the 12 improved ADHS corridors was estimated at over \$52 million in 1995 and projected at over \$100 million in 2015. This shows that improved ADHS corridors have considerable potential to stimulate eco- and cultural-tourism, which can lead to an interest in preserving these types of resources.



Continental 1 Corridor

US 219 is part of the Continental 1 Corridor (<http://continental1.org/>). The Continental 1 Corridor is a 1,500-mile direct route from Toronto to Miami. Support for this corridor centers around the potential for a north-south trade route with Canada that would promote economic development in Pennsylvania, Maryland, and surrounding states. The benefits of the corridor are anticipated as follows (per the Continental 1 website at <http://continental1.org/benefits>):

- *Trade Corridor* – Completion of US 219 through New York, Pennsylvania and Maryland [which] will provide attractive logistics benefit for manufacturing attraction and expansion throughout the corridor, providing a shorter, more cost-efficient trucking route for East Coast, Midwest and Canadian shippers.
- *Linkage* – Improved linkage between the cities, towns and villages along US 219 are key benefits of the completion of the highway, offering enhanced accessibility for commercial and personal travel.
- *Safety* – A primary goal of Continental 1 trade corridor is to improve safety by detouring heavy long-distance traffic onto the corridor, away from the central business districts.
- *Tourism* – Greater accessibility to communities along the US 219 corridor will provide growth opportunities for the tourism and entertainment industries, particularly in western New York and Pennsylvania.
- *Job Creation and Economic Development* – Completion of Continental 1 will lead to significant job growth and economic impact by allowing communities along the corridor to take advantage of current initiatives such as the growth of the Marcellus Shale natural gas industry, the strengthening trade relationship with Ontario, and the expansion of the Panama Canal.

Highlands Action Program

This potential of an improved ADHS corridor to increase tourism thereby promoting conservation and protection actions is compatible with the Highlands Action Program. The Highlands Action Program was established by Congress in 2001 with the purpose of promoting collaborative monitoring, research, management, and restoration of resources within the Mid-Atlantic Highlands (which contains the study area) and to promote long-term employment opportunities. On April 12, 2007, the Governors of Pennsylvania, Maryland, West Virginia, and Virginia signed the Highlands Action Program charter indicating their commitment to achieving the goals of the program.

This study, through its potential influence on economic development including tourism and commitment to avoid or minimize impact to the areas' natural and cultural resources (maple sugar operations, historic sites, wind mill farms, fishing streams, etc.) is fully compatible with the Highlands Action Program and the Pennsylvania and Maryland Governors' commitment to the program's goals. Any mitigation measures required for this study, opportunities to revitalize damaged ecosystems, practice



environmental stewardship, and protect special places would also be aligned with the goals and purpose of the Highlands Action Program.

North-South Appalachia Corridor

The *North-South Appalachia Corridor Feasibility Study* (2001 - updated February 2010), evaluated the potential economic development support generated by highway improvements in Appalachia. The states of Pennsylvania, Maryland, West Virginia, and Virginia completed the study as a joint effort. Four corridors extending from I-66 in the south to the Pennsylvania Turnpike were evaluated, with I-68 dividing them into northern and southern corridors. The study identified a southern and northern corridor as having the greatest potential to benefit Appalachian economic development. The selected northern corridor was US 219 from I-68 to the Pennsylvania Turnpike.

The study found that improving US 219 to four-lanes would support between 2,400 and 2,600 new jobs in Pennsylvania, the highest percentage (7 percent of the 2008 job base) of potential job growth of the four northern corridors. The US 219 corridor from I-68 to the Pennsylvania Turnpike, along with the US 22 corridor from I-68 south to West Virginia, were given the highest priority for future upgrades in the feasibility study since these two corridors "...have the greatest potential for supporting job growth and contributing to an improved regional standard of living and quality of life." The study also stated that the US 219 corridor from I-68 north to the Pennsylvania Turnpike would support the local economy of its region more significantly than any of the other evaluated corridors.

Somerset County (Pennsylvania) Comprehensive Plan

The August 2006 *Somerset County (Pennsylvania) Comprehensive Plan Update* contains extensive support, from both the county planning agency and the public, for the four-lane upgrade of US 219 from I-68 in Maryland to the Pennsylvania Turnpike. Under the Transportation component of the plan, the county's first Detailed Action Strategy is to "Apply community and political pressure to complete the US 219 corridor between ... Meyersdale and I-68 in Maryland. This corridor is critical to travel and transportation beyond Somerset County [Pennsylvania] to the south." The Comprehensive Plan states that improving this corridor will improve safety, mobility and economic vitality of the County. The Somerset County (Pennsylvania) Comprehensive Plan Update also states that completion of US 219 throughout Somerset County, Pennsylvania, along with the overall Continental 1 Corridor Project to Buffalo, New York, is vital to the development of key infrastructure to support existing and future economic development needs.

As part of the Comprehensive Plan update process, Somerset County, Pennsylvania, conducted a community survey to gather public input on the priority of various planning initiatives. Based on this survey, almost 72% of respondents ranked completion of US 219 as the top priority for the County. In addition, open house public meetings were



held during development of the Comprehensive Plan Update in all eleven of the county's school districts. During those open houses, numerous people from seven of the 11 Somerset County, Pennsylvania school districts expressed support and a strong desire to complete the four-lane US 219.

Garrett County (Maryland) Comprehensive Plan

The 2008 *Garrett County (Maryland) Comprehensive Plan* mentions needing improvements to the US 219 corridor to support development occurring in the Deep Creek Lake area (south of the PEL study area). The plan also states that the county supports plans to upgrade US 219 north of I-68, as a supplemental improvement to the region's highway network. The *Garrett County (Maryland) Comprehensive Plan* identifies two Employment Centers¹⁰ in the US 219 study area; one just east of US 219 and one just west of US 219 near the existing interchange with I-68. Improved access to these areas via an improved US 219 would help meet the intent of Garrett County's plan to encourage development in these two Employment Centers. **See Figure 2-2, Developable Sites.**

Potential Economic Centers

The US 219 Meyersdale to I-68 study area encompasses portions of Elk Lick and Summit Townships in Somerset County, Pennsylvania and Garrett County in Maryland. The study area is rural with the largest population settlement, at 727 people (2010 US Census), in Salisbury, Pennsylvania. The largest population center just outside of the study area is Meyersdale, approximately one mile to the north, with 2,194 people and Grantsville approximately two miles west along US 40 Alternate with 766 people.

Developable sites in the study area and vicinity include the 55-acre Meyersdale Industrial Park, located just north of the study area between Hunsrick Summit and Meyersdale. Meyersdale Municipal Authority provides water and sewer service to the site. Of the 55 acres, only eight acres are available. This industrial park is nine miles from I-68 and 25 miles south of the Pennsylvania Turnpike (I-76). See Figure 2-2, Developable Sites.

Further south in Maryland, just west of US 219 and north of US 40, is a Garrett County, Maryland, designated Employment Center. This 340-acre site is privately owned.

Planning is also in the works to create a development corridor - Chestnut Ridge Development Corridor (CRDC) along US 40 Alternate. The CRDC is located in an area east of Grantsville, known locally as the Chestnut Ridge area. The CRDC runs from

¹⁰ Employment Center (EC) areas provide for business, manufacturing, and industrial development uses with varying land use requirements. EC areas are located at strategic points in the County, with the intent of providing business, park or campus type settings near major highways, with access to public water and sewer services, and where there will be minimal adverse effects on adjoining land uses.



the intersection of US 40 Alternate (National Pike), and New Germany Road, to east along US 40 Alternate, to the intersection of US 40 Alternate and US 219 (Chestnut Ridge Road), north along US 219 to the intersection with Old Salisbury Road, and south along US 219 to a point south of I-68. As stated by Garrett County, Maryland, the proposed CRDC is planned to merge residential, commercial, and industrial interests in a harmonious environment. Garrett County has publicly stated that the construction of the proposed easternmost alignment of US 219 (Scenario 1), north of I-68, will only serve to enhance the possibilities for economic development success in this area.

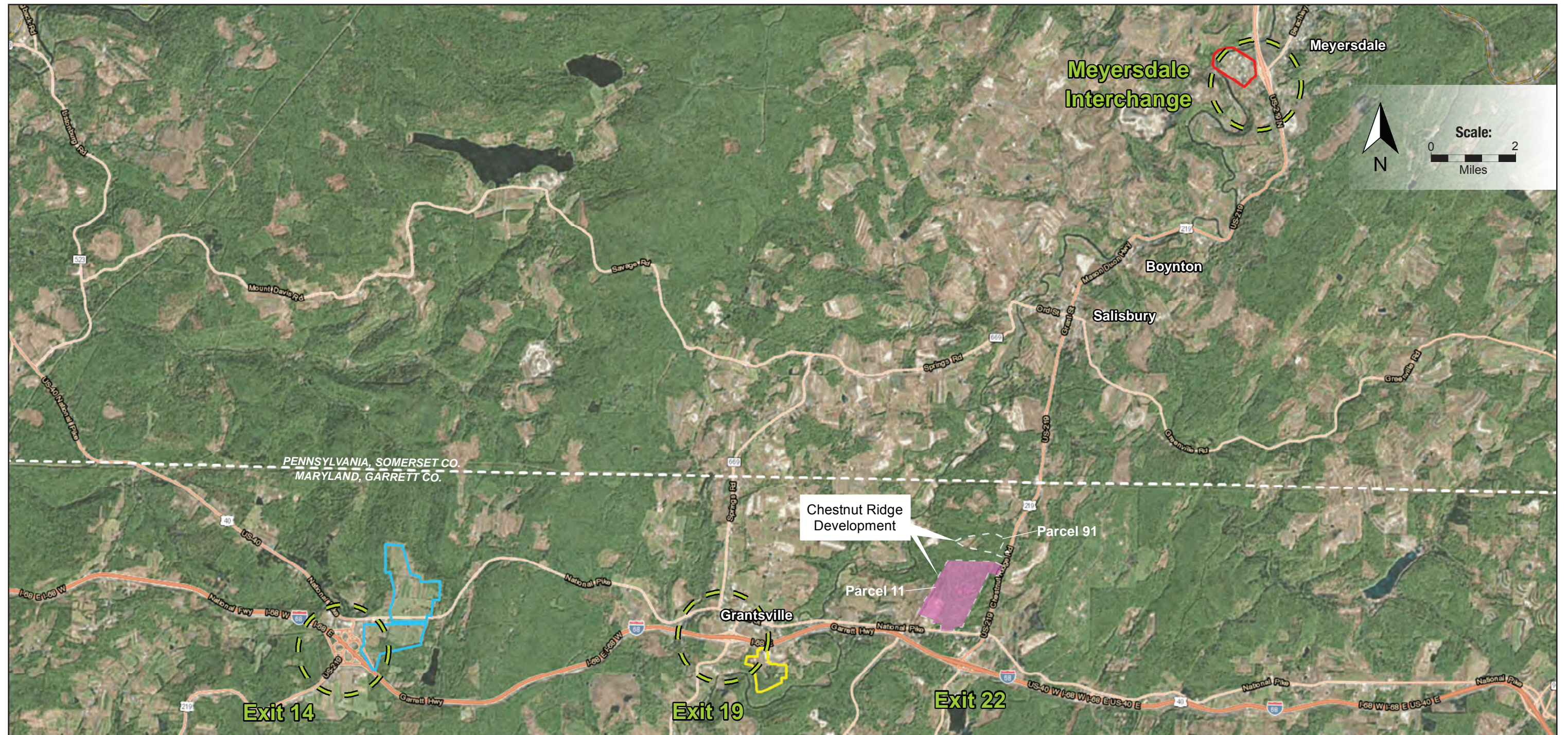
This development corridor planning is part of a larger Transportation Plan for the area that will consider viable options for passenger rail service, with a most likely scenario of a Rockwood, PA based rail station. If both the Chestnut Ridge Development and the rail service are brought to fruition, the county acknowledges that improvement of US 219 between I-68 and Meyersdale will be essential.

Garrett County has an active implementation plan for the CRDC, including this most recent (early 2016) schedule shown below:

Annexation of Property into Town of Grantsville	1 year
Water Service	4 years
Industrial Park Infrastructure	4 years
Housing Development (Single Family Residential)	4 years
Low Income Housing Development	5 years
Baseball Field/Historic Park	2 years
The Greater Cumberland Committee economic studies	1 year
Incentive Package for Industrial Park Tenants	1.5 years
Incentive Package for Commercial Activities in Corridor	1 year

Sewer service and broadband services are already available to the area, but water is the only utility yet to be extended. To accomplish this, Grantsville, Maryland plans to annex the CRDC and is working with the Garrett County (Maryland) Department of Planning & Land Management. The County’s Department of Planning and Land Management is providing administrative assistance for the implementation of their zoning ordinance and support in their Comprehensive Plan development that is establishing the proposed land uses for the annexation area. The current plan is to create a mixture of Employment Center, Town Center, and Town Residential districts.

The remaining properties in the development corridor are a mix of residential and commercial uses. Garrett County, Maryland, has stated that it wishes to incentivize more mixed use development, and also encourage the type of mixed use neighborhood that support implementation of bicycling and walking initiatives with easy access to work and recreation. Incentives will be given for commercial establishments, commercial establishments with apartments, and for installing sidewalks in front of properties.



- Legend:**
- Employment Center
 - Keyser's Ridge Business Park
 - Meysersdale Industrial Park
 - Northern Garrett Industrial Park

**Figure 2-2
Potential Economic Centers**
US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Grants will be sought for the creation of pedestrian and bicycle paths linking residential communities, the historic park, and the baseball diamond.

Proposed within the CRDC is the Casselman Farm development (**Figure 2-3**). The proposed Casselman Farm development includes an eight lot, 160-acre industrial park, accessed from US 219, and a 33 lot residential development. Garrett County, Maryland, plans to establish a historic park centered on education about the history of the Braddock Road. They are encouraging the park's inclusion as part of the local Heritage Tour. This park will be owned and maintained by the Town of Grantsville, Maryland. In addition, the development will include a community baseball field, also owned and maintained by the Town of Grantsville.

A second Employment Center is located just east of existing US 219 and south of US 40 Alternate. This 42-acre site is owned by Garrett County, Maryland and has 15 acres available for industrial development. Both Employment Centers have access to public water and sewer.

Northern Garrett Industrial Park is an 80-acre industrial park on the south side of I-68 off Exit 19, which is two miles west of the existing US 219/I-68 interchange. This industrial park is fully occupied and there are no known plans for its expansion.

In 2008, Garrett County, Maryland, opened the 240 acre Keyser's Ridge Business Park off I-68 Exit 14, which is less than 10 miles west of the study area. American Woodmark is currently the only tenant in the Keyser's Ridge Business Park. An additional 225 acres is available for development.

The Garrett (Maryland) and Somerset (Pennsylvania) counties' planning documents are focused on development within the study area region and not on specific locations within the study area. Neither of the counties had strong opinions on whether a local access interchange with existing US 219 would be beneficial to development; however, both indicated that a new four-lane limited access facility is needed to help spur economic development.

Southern Alleghenies Rural Planning Organization 2013-2037 Long Range Transportation Plan (November 2012)

The Southern Alleghenies Planning and Development Commission (SAP&DC) is a Local Development District (LDD) that implements a Rural Transportation Work Program for the counties of Bedford, Fulton, Huntingdon and Somerset, Pennsylvania. SAP&DC is responsible for developing a project specific 20-year-minimum plan referred to as the Long Range Transportation Plan (LRTP). The LRTP is financially constrained and is a springboard for identifying and recommending projects for inclusion in the Pennsylvania's 12 Year Transportation Program and the Statewide Transportation Improvement Program (TIP).

Planning & Environmental Linkages

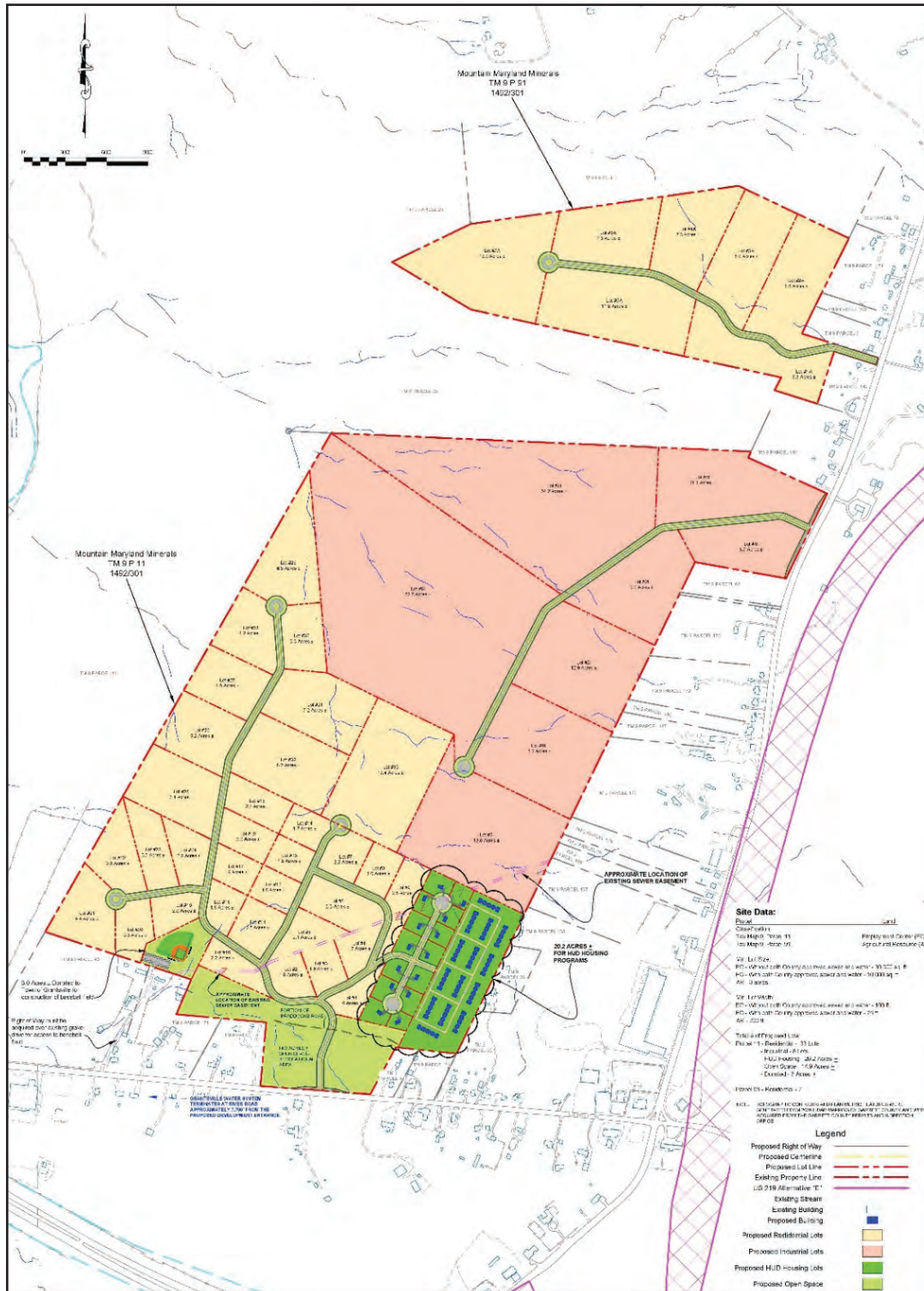


Figure 2-3
Casselman Farm Concept Plan
 US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland



The Southern Alleghenies LRTP includes a vision specific for each county in the region. Somerset County's (Pennsylvania) vision states that "US 219 needs to be completed between Somerset and the Meyersdale Bypass and Maryland I-68. This will provide a crucial north-south transportation corridor in the county, improving the safety, mobility, and economic viability of the overall county. Community and political support needs to be organized to ensure this remains a funding priority." Based on this vision, the LRTP states that it is a goal of Somerset County, Pennsylvania to ensure that funding to complete US 219 is received and that necessary approvals are obtained to allow construction.

Completion of US 219 from Meyersdale, Pennsylvania to I-68 in Maryland is not included in the fiscally constrained list of projects in the current LRTP; therefore, no project is able to move forward into NEPA in Pennsylvania. However, it is identified in the list of "regionally significant projects that fall outside of the financial constraints of this plan."

In addition, during the LRTP update process, SAP&DC conducted various stakeholder meetings to obtain public input on the plan. During a meeting held on September 8, 2011, attendees stressed that "both safety and economic development were important to the [regional] transportation network," with the completion of US 219 specifically mentioned. Written comments from Pennsylvania Senator Richard Kasunic stated the Senator's support for completion of US 219 south to the Maryland state line.

2012-2016 Comprehensive Economic Development Strategy Southern Alleghenies Region

The Comprehensive Economic Development Strategy (CEDS) for the six-county Southern Alleghenies Region of Central Pennsylvania (Bedford, Blair, Cambria, Fulton, Huntingdon, and Somerset counties, Pennsylvania) sets forth goals and objectives, defines action plan strategies, and identifies performance measures necessary for strengthening and diversifying the regional economy.

The analysis of the goals and objectives of the Region was provided by input from public officials, professional staff of various government agencies and private citizens, including members of the business community and involved citizens. Any proposed developments are studied for conformity with the stated and accepted goals and objectives for the Region, as well as the state's economic development priorities. The CEDS includes recommendations for future economic development in the region, as well as an action plan for implementation.

Identified within the CEDS are regional economic trends. Relative to this PEL study, the Southern Alleghenies CEDS states that:

- The Region as a whole has a lower median household income compared to the state.



- Overall, more workers leave the Southern Alleghenies Region for employment.
- The Region is significantly underrepresented in educational services, management of companies & enterprises, professional and technical services, and finance & insurance when compared to the state.

The CEDS states that the region needs to seek a more diversified economy, but this is being hampered by a lack of needed infrastructure, including adequate highway facilities. Page 62 of the CEDS states that the region "...still needs more and upgraded highways in order to have a quality, connected highway system."

The plan goes on to state that "the completion of transportation improvement projects presents opportunities for increased competitiveness of the Region for economic development." Specifically, the CEDS mentions completion of key transportation links identified through the ADHS, including US 219. Page 69 of the plan states that a priority of the region is to "Complete US 219 as a four-lane divided highway between Somerset and Meyersdale [in Pennsylvania], and between Meyersdale [Pennsylvania] and Route I-68 in Cumberland, Maryland."

*Major Highways Action Plan for Cambria County, Pennsylvania
(April 2013)*

The Major Highways Action Plan for Cambria County, Pennsylvania was prepared in April 2013 by the Cambria County Planning Commission and the Greater Johnstown / Cambria County Chamber of Commerce, Inc. While this plan represents the highest transportation priorities for the Johnstown Area MPO and does not include the study area being evaluated in this PEL document, it does recognize the completion of US 219 to I-68 as important to the economic competitiveness of the region. The plan also states that a Goal and Objective is to "create convenient, high speed highways connecting Cambria County [Pennsylvania] with ... I- 68 (Maryland) to the south to promote economic growth and stability."

3. Consistency with Supporting Plans

ARC ADHS

As stated, ARC intends the ADHS to be a system of interstate type highways linking the Appalachian Region to the rest of the US and Canada with the purpose of providing essential transportation access for improving the Appalachian Region's (Region) economic position. Any improvement that would bring US 219 (ADHS Corridor N) closer to fulfilling the goal of providing an interstate type highway system would be consistent with the ARC ADHS.

North-South Appalachia Corridor

The North-South Appalachia Corridor study found that upgrading US 219 to a four-lane facility would "...have the greatest potential for supporting job growth and contributing to an improved regional standard of living and quality of life." The study also stated that



the US 219 corridor from I-68 north to the Pennsylvania Turnpike would support the local economy of its region more significantly than any of the other evaluated corridors. Any improvement that would bring US 219 closer to fulfilling the goal of providing an four-lane facility would be consistent with the North-South Appalachia Corridor study.

Somerset County, Pennsylvania Comprehensive Plan, SAP&DC LRTP and SAP&DC CEDS

Each of these Somerset County, Pennsylvania and regional SAP&DC documents support the need for an improved US 219 facility and for completion of the four-lane improvement between Somerset (Pennsylvania) and I-68 (Maryland). Any improvement that would bring US 219 closer to fulfilling the goal of providing a four-lane facility would be consistent with the Somerset County [Pennsylvania] Comprehensive Plan, LRTP and CEDS.

Garrett County, Maryland Comprehensive Plan

Garrett County, Maryland does not have a LRTP, as it is not part of a Maryland Metropolitan Planning Organization (MPO). In addition, the Garrett County [Maryland] Comprehensive Plan does not mention anything specific related to improvement of the study section of US 219. Discussions with the county planning department revealed that the county is very much in support of a four-lane US 219 facility from I-68 north. Therefore improvements to US 219 would be consistent with Garrett County Maryland, plans.

Garrett County's (Maryland) July 15, 2014 "Garrett County Transportation Priority List 2014" lists the reconstruction of US 219 as the County's Regional Transportation Priority #1.

Potential Economic Centers

As stated, developable sites in the study area and vicinity include the 55-acre Meyersdale Industrial Park, a 340-acre Garrett County, Maryland, designated Employment Center, a second 42-acre Employment Center, the 88-acre Northern Garrett Industrial Park (fully occupied and no known plans for its expansion) and the 240-acre Keyser's Ridge Business Park. Those sites most likely to benefit from improvements to US 219 are the two Garrett County Employment Centers as they are both located directly adjacent to US 219 and within the study area. Any improvements to US 219 that would provide better, more efficient and safe access into these economic centers would be consistent with the plans of both Somerset County, Pennsylvania, and Garrett County, Maryland. It should be noted that the 340-acre Employment Center is also located within a Garrett County Priority Funding Area (PFA). PFA's are areas where funding for economic development type activities are sought and encouraged. Therefore, the mentioned employment center is a vital part of Garrett County's (Maryland) future economic development potential.



Chapter 3 – Deficiencies and Needs

1. Background Information

a. Existing & Future Traffic Volumes

The 2014 Average Annual Daily Traffic (ADT) at the Maryland-Pennsylvania state line was approximately 4,300 vehicles per day. Based on a May 2013 class count, the daily percentage of trucks (Class 4 and above) was approximately 17 percent (%).

Future traffic volumes were determined using the Maryland Statewide Transportation Model (MSTM), which incorporates surrounding states for completeness of the analysis. The MSTM was used to evaluate economic and traffic growth along the corridor. The MSTM suggested 31.5% economic land use growth would occur from existing to future no build, translating to 0.8% annual traffic growth. This growth was rounded to a 1% traffic growth and compounded annually to calculate future no build traffic volumes. This rounding methodology is a commonly applied forecasting measure to account for any possible missed growth and results in slightly conservative forecasts.

Future build traffic was then based on the same economic growth methodology, assuming the new US 219 was implemented. The results of the MSTM analysis for the 2045 build year suggested a 39.7% economic land use growth for the build scenarios. However, an additional 10% economic growth surcharge was applied on top of the MSTM land use economic growth to account for the attractiveness of a new US 219 roadway. This total 49.7% economic growth translated to a 1.7% traffic growth compounded annually. Since the MSTM could not directly report an “attractiveness factor” of new roadways, a 10% economic growth surcharge was applied. Refer to the *US 219 Study, Meyersdale to I-68: Analysis of Regional Travel Demand* by Maryland State Highway Administration dated 9/18/2014 for more details regarding the travel forecasting methodology.

In addition to the aforementioned 10% economic growth surcharge, non-approved developments were also added to the build traffic. The non-approved developments include the Chestnut Ridge development in Maryland and two 70-acre industrial sites in Pennsylvania. Trip generation was conducted for these sites and traffic was assigned along the new US 219 alignment. The Chestnut Ridge development was added to the travel forecasting procedure even though the development is not yet approved.

Due to travel time changes, ease of access, and free travel along the new US 219 compared to the tolled Pennsylvania Turnpike (PA Turnpike), diversion of vehicles was also taken into consideration.



Planning & Environmental Linkages

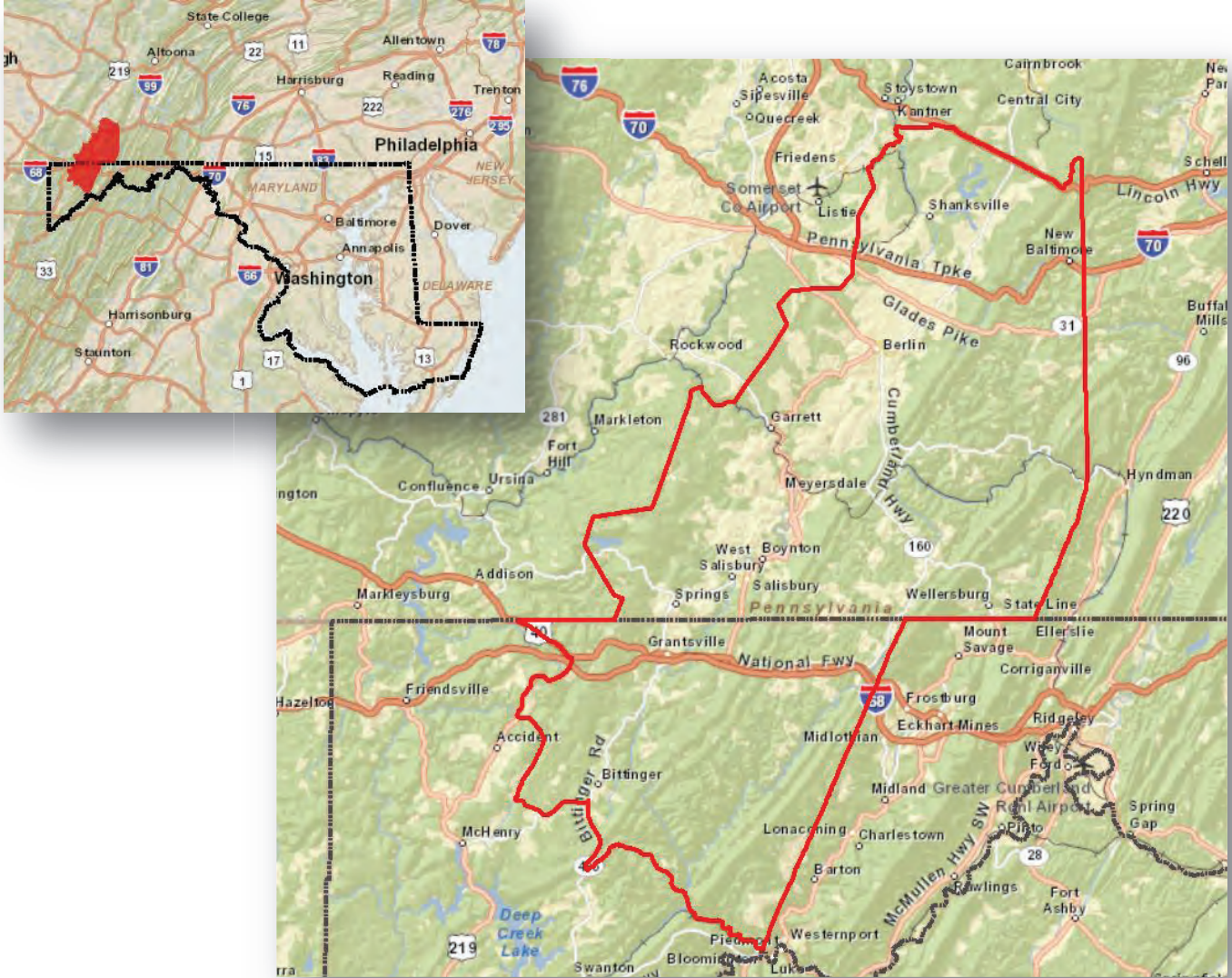


Figure 3-1
Travel Demand Analysis

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland
Source: Maryland Statewide Transportation Model (ver. 1.0.60)



The MSTM did not initially take tolling diversion into account; therefore, an 18% truck and car diversion rate was applied from the PA Turnpike to the new US 219 existing and future (build) travel times. The diversion applied to all vehicles traveling east-west from Breezewood, Pennsylvania and points east to Somerset, Pennsylvania and points west. Diversion was also based on the route travel time and advantage to passenger vehicles and trucks when accessing their destinations.

The 2045 ADT for the US 219 no build condition is 5,900 vehicles with 17% trucks. The 2045 ADT for the US 219 build conditions (new US 219) varies between 11,000 and 12,250. Based on engineering judgment, it is assumed that the truck percentage on existing (two-lane) US 219 will reduce to an estimated 5%, and with more trucks using the new US 219, the estimated truck percentage on a build alignment would be 28%. The total truck percentage traveling north-south would increase from the no build 17% truck volume to a total of approximately 22%.

b. Traffic Analysis

MDOT/SHA completed an existing and future operations analysis for the study. The future build year operational analysis was based on a VISSIM microsimulation (the red outline on Figure 3-1 shows where the VISSIM analysis was completed). The operations analysis evaluated travel times, average speeds, peak hour densities, and levels of service for US 219 no-build and build conditions. The analysis showed that in both the no-build and build conditions, US 219 would operate at Level of Service (LOS) B or better. These results reflect only partial segments of the corridor where freeway merges, diverges or weaves occur, not the entire span of the US 219 corridor.

Average peak hour corridor speeds were calculated based on VISSIM travel time outputs. The resulting speeds suggest no major congestion or change for the existing US 219 corridor, and free flow speeds for the new US 219 alignment.

For the no-build option, travel times on existing US 219 from the Meyersdale Bypass to I-68 are estimated at around 11 minutes. The new US 219 alignment travel times for any of the build alignments are approximately 7-8 minutes (based on route) due to the proposed increased travel speeds.

c. Existing Economic Conditions

The Appalachian Regional Commission (ARC) uses three-year average unemployment rate, per capita market income, and poverty rate to identify and monitor the economic status of Appalachian counties. Each county in the nation is ranked as distressed, at-risk, transitional, competitive, or in attainment. Both Somerset (Pennsylvania) and Garrett (Maryland) counties are classified as transitional in ARC's Distressed Designation and County Economic Status Classification System, FY 2007 – FY 2016.

Transitional counties are those transitioning between strong and weak economies. They make up the largest economic status designation. Transitional counties rank between the worst 25 percent and the best 25 percent of the nation's counties.

Even though the study area counties are transitioning from economically distressed to economically stronger counties that does not indicate strength in those economies. **Table 3-1, Economic Indicators**, shows that both counties have 2013 unemployment rates higher than the state and US averages. In addition, the per capita income for both counties is lower than their respective states and the US as a whole.

Geography	Unemployment Rate	Per Capita Income	Poverty Rate	Poverty Rate of Children under 18
United States	7.4%	\$28,889	15.8%	22.2%
Maryland	6.1%	\$36,354	10.1%	13.6%
Garrett County, MD	7.8%	\$24,932	13.8%	22.8%
Pennsylvania	6.9%	\$28,502	13.7%	19.4%
Somerset County, PA	8.5%	\$22,192	12.2%	17.9%

*2014 data was not available for all geographies; therefore, 2013 data was used.

With higher unemployment and low per capita income, it is clear that economic development initiatives are vital to the future viability and livability of both counties. As stated in the Supporting Plans section of **Chapter 2**, transportation improvements can have a positive effect on economic conditions. Transportation improvements would benefit economic development in Garrett County, Maryland through development of the Chestnut Ridge property, located within the Employment Center and a Priority Funding Area.



Photo 1: Facing south just south of Hunsrick Summit, PA

d. Study Area Topography

The study area is situated within the Allegheny Mountain section of the Appalachian Plateaus physiographic province, and lies on the eastern limb of the Berlin syncline, a basin formed by folding of the underlying bedrock. The edges of the basin are expressed topographically as two long, even-crested mountains: Meadow Mountain (Maryland) and Allegheny Mountain

(Pennsylvania) on the east, and Negro Mountain on the west.

The study area starts in the north near Hunsrick Summit, Pennsylvania where the elevation is approximately 2,263 feet. From this point, along existing US 219, the elevation drops (See **Photo 1**) to around 1,984 feet at the point where US 219 makes a sharp curve around the ox-bow in the Casselman River (about 1.25 miles north of Boynton, Pennsylvania). The elevation at Boynton, Pennsylvania climbs slightly to 1,999 feet and then climbs again to around 2,133 feet at Salisbury, Pennsylvania. US 219 heading south out of Salisbury, Pennsylvania is winding and on an undulating grade. However the elevation continues to generally climb (See **Photo 2**) to approximately 2,400 feet at the state line, to 2,500 feet just south of the state line, and then to near 2,700 feet just north of Route 40 in

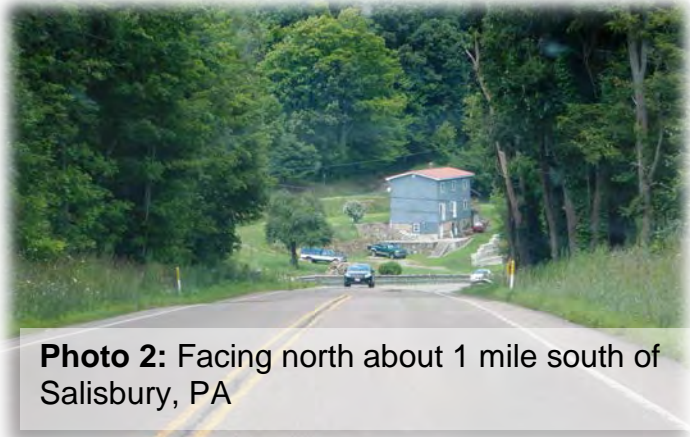
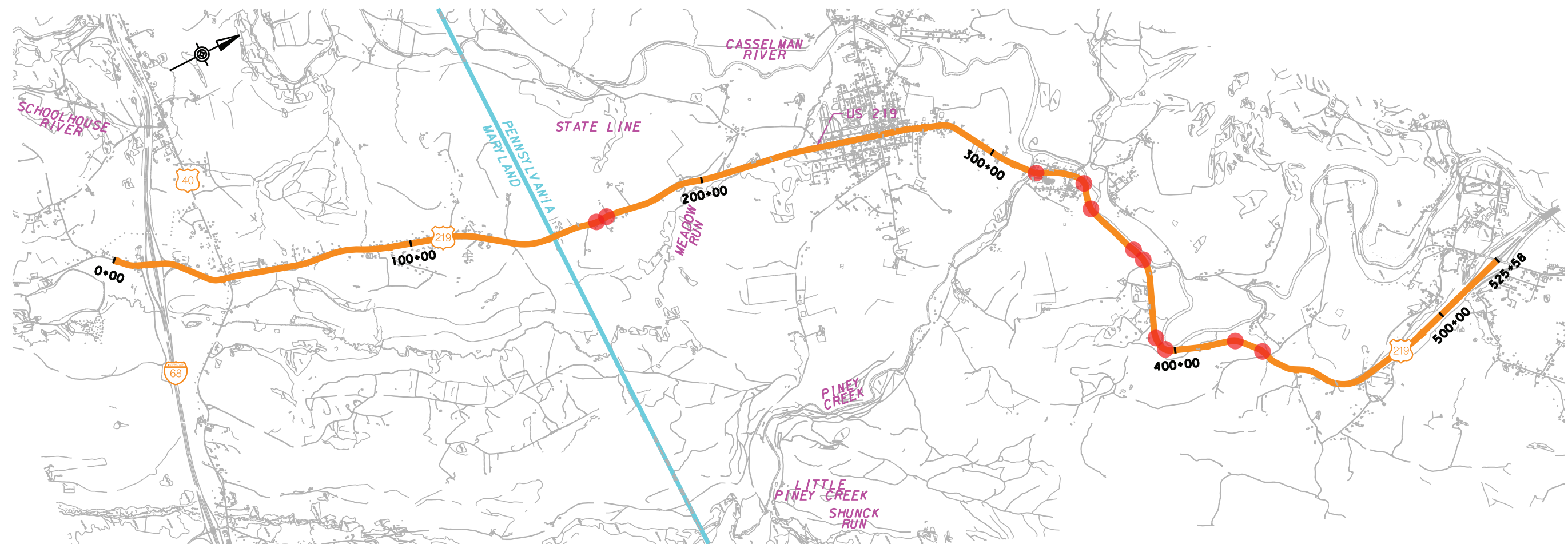


Photo 2: Facing north about 1 mile south of Salisbury, PA

Maryland (the highest point along US 219 in the study area). At the intersection of Route 40 and existing US 219 the topographic elevation is 2,680 feet and at the I-68 interchange it is around 2,660 feet. The eastern edge of the study area in Pennsylvania sits along the western face of Allegheny Mountain at an elevation of approximately 2,500 feet. The western edge of the study area in Pennsylvania along the Casselman River is at about 2,000 feet elevation. In Maryland, the eastern edge of the study area is along the western edge of Meadow Mountain at an elevation of about 2,800 feet. The western edge of the study area in Maryland near the Casselman River is at about 2,100 feet.

The steep topography of the study area results in a steep and winding alignment on existing US 219. From the end of the Meyersdale Bypass south, near Hunsrick Summit, Pennsylvania, the existing alignment southbound is on a steep downhill grade (steeper than 5% - see **Photo 1** and **Figure 3-2**). In addition, the existing two-lane alignment from under the existing Hunsrick Summit bridge heading south is on a horizontal curve that exceeds the maximum desirable curvature ($4^{\circ}45'$) for this type of facility. Several other steep grades (steeper than 5%) also exist between Boynton and Salisbury (see **Photos 3 and 4**), Pennsylvania and between Salisbury, Pennsylvania and the state line (see **Photo 2**).



● DOES NOT MEET AASHTO CRITERIA FOR MINIMUM HORIZONTAL CURVATURE OR VERTICAL SIGHT DISTANCE

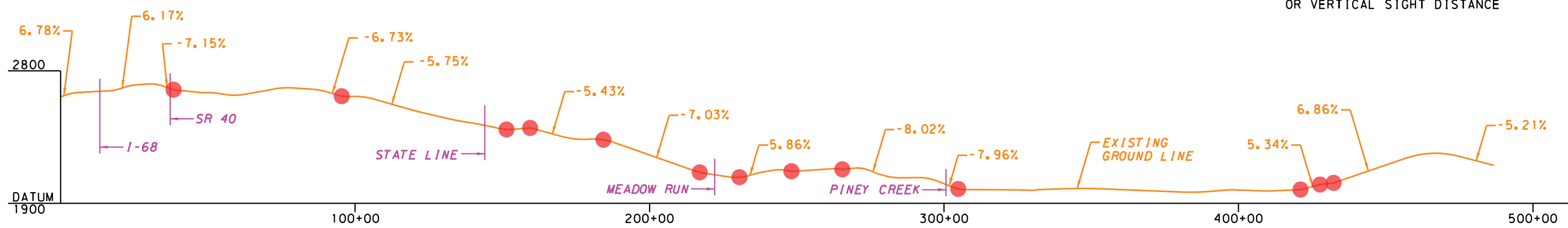


Figure 3-2
Existing US 219 Plan and Profile
US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Photo 3: Facing north just south of Boynton, PA

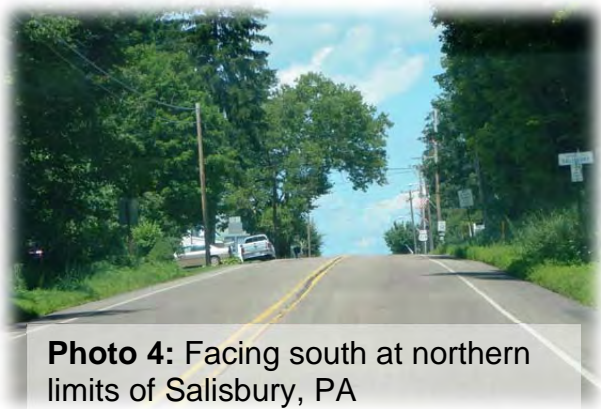


Photo 4: Facing south at northern limits of Salisbury, PA

Three other horizontal curves have also been identified that exceed the maximum desired curvature—just north of Boynton, just south of Boynton and just north of Salisbury, all in Pennsylvania. Each of these horizontal curves do not meet design standards for sight distance. One additional area that does not meet sight distance, due to a combined horizontal curve and vertical curve is located just south of the state line in Maryland (see **Photo 5**).



Photo 5: Facing south about 0.5 mile north of Route 40 in Maryland

The steep grades and sharp curves result in larger vehicles traveling slowly. This in turn creates traffic cues that adversely affect the level of service on existing US 219 (see **Photos 1, 6, and 7**).



Photo 6: Facing north about 1.25 miles south of Salisbury, PA



Photo 7: Facing north in Salisbury, PA



2. Deficiencies and Needs

The deficiencies and needs outlined in this section, and the related performance measures, are for the US 219 corridor as a whole from Meyersdale to I-68. Their purpose is to assist with the analysis as to what possible alignments would closely meet the PEL Visions and Goals when carried forward in the future NEPA studies. As mentioned in **Chapter 2**, the primary purpose of this PEL is to identify possible corridor solutions/alignments. As a secondary purpose, this PEL will also evaluate whether any stand-alone, subsequent projects exist within potential alignments (**Chapter 8**).

Specific goals and deficiencies, along with performance measures, as required, related to the stand-alone projects would be developed during NEPA should a project move forward. These project specific goals, deficiencies and performance measures developed, at a later date during future NEPA efforts, for the potential stand-alone project(s) would contribute to the realization of the corridor's ultimate vision, goal, deficiencies and performance measures. Collectively, when all individual projects are completed in the corridor, they would achieve the corridor's vision, goals, objectives and performance measures.

a. Regional and Local Economics

Deficiency (Supporting Information):

There are two potential economic development areas within the PEL study area, the Chestnut Ridge Development Corridor in Garrett County, Maryland, and the Boroughs of Salisbury and Boynton in Somerset County, Pennsylvania (See **Figure 2-2 in Chapter 2**). The planned Chestnut Ridge Development proposes to add mixed use development to Garret County Employment Center area, with industrial use comingled with residential, commercial and recreational uses. No development is planned or reasonably foreseeable in either Salisbury or Boynton boroughs, Pennsylvania. In addition, a former Keystone Opportunity Zone¹¹ (KOZ) located just north of Salisbury, Pennsylvania was allowed to expire and is no longer present.

The industrial vehicle use of the Chestnut Ridge Development Corridor is hampered by the current condition of US 219 both when connecting to I-68 (for east-west travel) and when traveling along US 219 (for north-south travel). The same US 219 geometric concerns limit the north-south connectivity of the Somerset County, Pennsylvania portion of US 219 in the PEL study area. Salisbury, Summit Township, and Elk Lick Township, Pennsylvania also have limited east-west connectivity with the only true east-west route being a narrow, winding two-lane facility called Greenville Road.

¹¹ KOZs were formerly (expired December 31, 2013) locations in Pennsylvania with unique tax incentives and development designations. KOZ designations were achieved through a partnership between state and local taxing bodies in 1998, and additional property designations in 2001.



Improved north-south connectivity via US 219 would provide a link between I-68 and the Pennsylvania Turnpike (I-76) and even further to the north to US 22. By 2018, US 219 will be a four-lane freeway type facility for over 60 miles from just north of US 22 in Cambria County, Pennsylvania to Meyersdale, Pennsylvania.

US 22, I-76 and I-68 are all east-west four-lane, freeway type facilities. Connecting these three major east-west routes with an improved US 219 would greatly enhance the linkage between the study area and other parts of Maryland, Pennsylvania, and the region as a whole. This would improve freight movement through the corridor by providing an improved connection to the four-lane limited access facility to the south (I-68) and a four-lane limited access facility to the north (I-76).

Therefore, the study area is an inconsistent linkage in the existing and planned transportation network. It does not provide adequate access to the surrounding municipalities and is a contributing factor in limiting economic development, and is inconsistent with the goals and objectives of the ARC.

Need(s)

- Economic growth in the study area is stagnant due to lack of efficient highway access.
- Safe and efficient access to southern Somerset County, Pennsylvania and northern Garrett County, Maryland is hampered by lack of north-south interstate type facility access.

Performance Measure(s)

- Result in a net increase in the number of miles of the ADHS Corridor N open to traffic.
 - Currently (early 2016) in Pennsylvania seven miles of the 65.6 mile long corridor (US 22 near Ebensburg, Pennsylvania to the Maryland state line) remain as a two-lane facility and 11 miles are currently under construction, as a four-lane facility, from Somerset to Meyersdale, Pennsylvania with an anticipated opening year of 2018.
 - Currently (early 2016) in Maryland all 2.5 miles of Corridor N (Maryland state line to I-68) remain as a two-lane facility.

b. Mobility

Deficiency (Supporting Information):

The 2008 Garrett County (Maryland) Comprehensive Plan states: "... the largest traffic volumes in the County typically occur on I-68 and US 219" and "The highest AADT in the County is just over 20,000 vehicles per day (vpd), along I-68 near US 219." Transportation trends noted in the plan include:



- I-68 is the primary east-west corridor serving through travel and the northern portion of the County.
- US 219 is the primary north-south corridor, which also directly serves the Deep Creek Lake area.
- Traffic along I-68 and US 219 grew by two to five percent annually. Traffic volumes on I-68 have increased by about 5,000 vpd since 1995. However, the report states that this type of growth is not anticipated to continue and that future traffic growth in the county is more likely to be around one percent per year.
- There was a steady growth in traffic volumes along US 219 at the Maryland-Pennsylvania border, likely due to policies supporting economic development in the Appalachian Region along that corridor. As planned improvements along US 219 to Meyersdale, Pennsylvania are completed, the growth in traffic volumes is expected to continue.

The August 2006 Somerset County (Pennsylvania) Comprehensive Plan Update states:

US 219 needs to be completed between Meyersdale and I-68 in Maryland. The completion of this link would finish the US 219 corridor from Maryland to the Pennsylvania Turnpike and north to Johnstown. This will continue the crucial north-south transportation corridor in the County.

Sidewalks exist only in the Borough of Salisbury, Pennsylvania and no transit services or bicycle facilities exist in the study area. Due to the rural nature of the study area, there is no expectation that pedestrian, transit or bicycle use will become a mobility issue into the future. The Great Allegheny Passage (GAP) trail is located approximately five miles north of the study area, but no connections to this trail are planned through the study area. No existing or planned pedestrian or bicycle facilities existing in the study area.

The most likely change in mobility will be increased traffic due to proposed developments in the Maryland portion of the study area and completion of the 13-mile section of US 219 between Meyersdale and Somerset, Pennsylvania, which may result in motorists, including truckers, using US 219 between I-68 and the Pennsylvania Turnpike.

Need(s)

- Mobility on this section of US 219 is affected by high truck volumes, which may increase when the new US 219 four-lane from Somerset to Meyersdale in Pennsylvania is completed, and may be further affected by increased traffic resulting from a proposed Casselman Farm development (Maryland).



Performance Measure(s)

- Reduce north-south travel time within the study area by approximately 15% or greater.

c. Safety

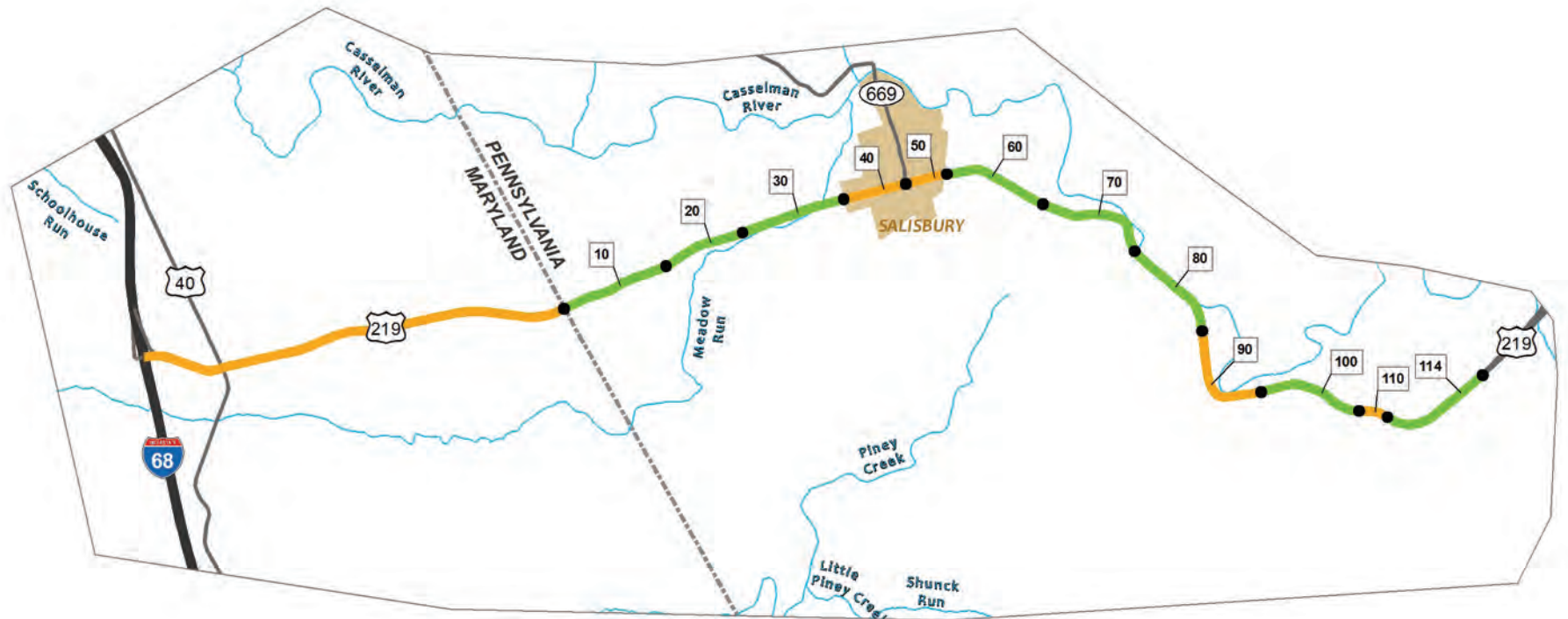
Deficiency (Supporting Information):

A crash analysis completed in July 2014, for the preceding five-year period, showed a total of 64 crashes for US 219, 42 crashes along portions of the roadway in Pennsylvania and 22 crashes along portions of the roadway in Maryland. Of the crashes in Pennsylvania, 50% involved injuries. In Maryland, 45% of the reported crashes involved injuries. In addition, there was one fatal crash reported along US 219 in Pennsylvania that involved a pedestrian.

Numerous roadway geometric features on US 219 do not meet Pennsylvania and Maryland current design standards with regards to lane and shoulder width, vertical grade, horizontal curvature, and sight distance. There were a total of 13 segments studied along US 219, with 12 of the segments in Pennsylvania. A review of the five year crash rates per million vehicle miles in comparison to statewide average crash rates for similar facility types found that six of the segments (46%) had crash rates above the statewide average rates, including the segment in Maryland. One segment in Pennsylvania had a crash rate that was more than twice the statewide crash rate. **Figure 3-3, Segment Locations** shows where the referenced roadway segments fall within the US 219 Corridor.

As shown in **Figure 3-4, US 219 Crash Types**, the majority of the crashes on US 219 resulted in vehicles hitting a fixed object. This can be an indicator of substandard widths of the lanes and shoulders, geometric deficiencies such as substandard horizontal and vertical curves, and insufficient clear zone widths with objects such as trees/shrubberies, utility poles, and buildings located too close to the travel way. Other frequent types of crashes included angle/left-turn collisions and rear-end collisions. An angle or left-turn collision typically results from a vehicle pulling onto the roadway from a private driveway or other cross road without sufficient clearance to an approaching vehicle.

Often the cause is due to poor sight distance constraints and either vehicle failing to observe the vehicle conflict time. A rear-end collision typically occurs when a vehicle is stopped waiting for clearance in order to make a left turn and the rear-approaching vehicle has poor sight distance and fails to observe the stopped vehicle in time. The other type of collisions reported included head-on and sideswipe. Head-on collisions often occur along stretches of rural-two lane highways when one vehicle attempts to pass a slower moving vehicle illegally or legally within a posted passing-zone, without sufficient clearance to an on-coming vehicle. Again, often sight-distance is a factor in the crash types. Sideswipe crashes are typically due to narrow lanes and shoulders on roadways with sharp curves and poor sight distance issues.



Crash Class by Road Segment*

- █ Below Statewide Average
- █ Exceeds Statewide Average
- 10 Roadway Segment

*MD SHA does not segment their roadways like PennDOT; therefore, no segments are shown in Maryland.

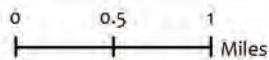
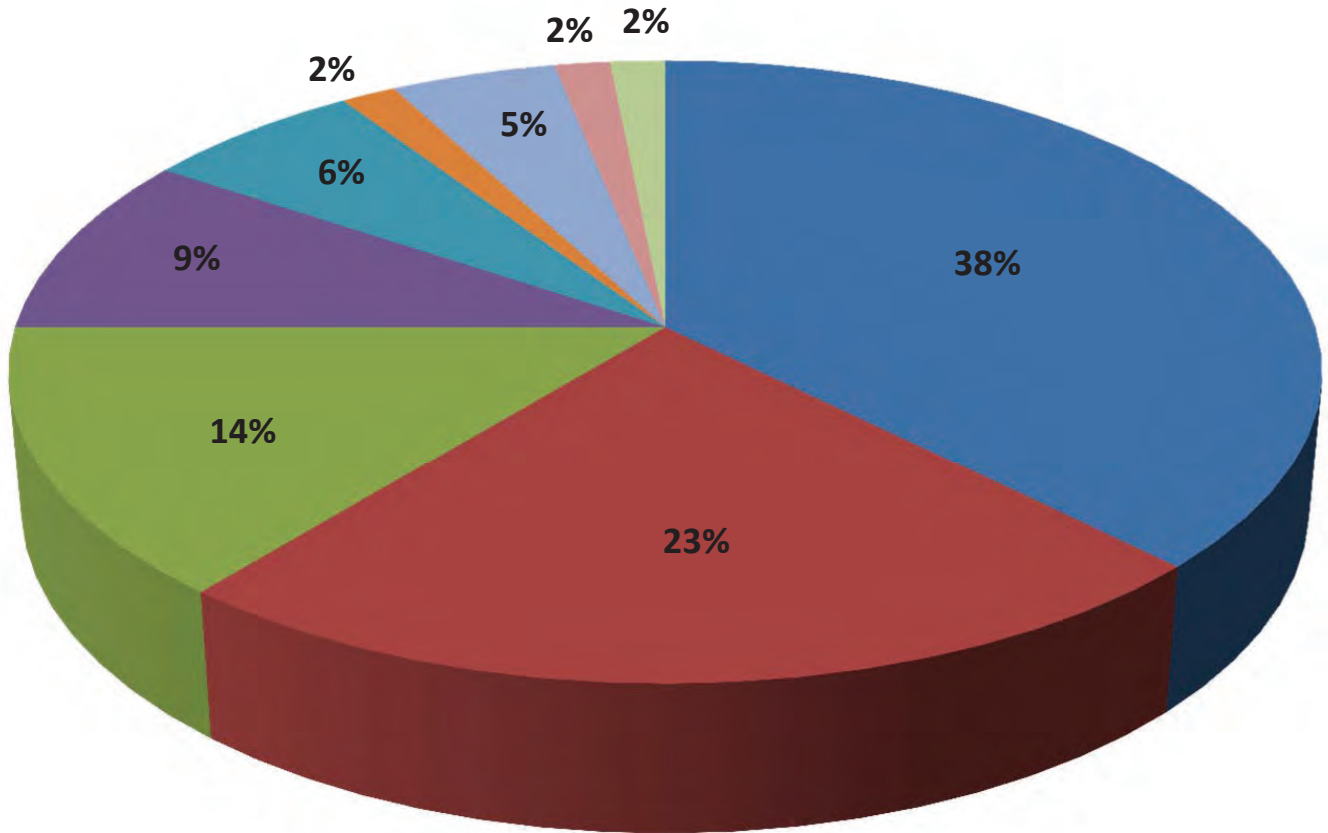


Figure 3-3

US 219 Segment Locations

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Legend:

- Hit Fix Object
- Angle
- Rear End
- Non-Collision
- Head On
- Sideswipe
- Left Turn
- Other
- Pedestrian

Figure 3-4
US 219 Crash Types Pie Chart

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



As shown in **Table 3-2**, the majority of crashes during this period occurred during favorable driving conditions; dry pavement, clear skies, and daylight hours.

Characteristics		US 219 – Pennsylvania	US 219 – Maryland
Percentage by Pavement Conditions	Drv	60%	86%
	Wet	21%	9%
	Snow / Ice	18%	5%
Percentage by Weather Conditions	Clear	71%	95%
	Rain / Fog	14%	0%
	Snow / Sleet	14%	5%
Percentage by Time of Day	Daylight	73%	86%
	Dawn / Dusk	4%	5%
	Night	23%	9%

Source(s): PennDOT, Bureau of Maintenance and Operations, Highway Safety and Traffic Operations Division, Crash Data Analysis Reporting Tool, 2014 & MDOT/SHA, Office of Traffic and Safety, Traffic Development and Support Division, Crash Database, 2014.

Existing US 219 between the Meyersdale Bypass and I-68 is steep and winding, especially in the north. The route in Pennsylvania has narrow shoulders and limited sight distance at many intersections due to steep grades and sharp curves. The existing route is very narrow through the Borough of Salisbury due in part to on-street parking along both sides of US 219. The steep grades, sharp curves, and narrow roadway are especially a concern with the higher truck volumes (17%) carried by US 219.

Research¹² has indicated that an improved horizontal and vertical alignment may reduce risk of crash potential. It is further suggested that if the roadway is constructed as a four-lane divided highway, the proposed roadway would likely have a lower crash potential, and overall provide a safer alternative to the existing two-lane, undivided highways. The proposed improvements for US 219 will be evaluated using Highway Safety Manual (HSM) tools and compared with established criteria in subsequent NEPA

¹² *Effects of Geometric Characteristics of Rural Two-Lane Roads on Safety, Final Report*, Samuel Labi, June 2006 (FHWA/IN/JTRP-2005/2)

<http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1709&context=itrp> and *Safety Effects of the Conversion of Rural Two-Lane Roadways to Four-Lane Roadways*, Summary Report, US Department of Transportation, FHWA, Highway Safety Information System, November 1999.

<https://www.fhwa.dot.gov/publications/research/safety/humanfac/pdfs/99206.pdf>



studies. With the HSM evaluation, predicted crashes can be determined with future volumes for the no build and build condition.

Need(s):

- Numerous roadway geometric features on existing US 219 (when combined with high truck volumes) result in safety issues that do not meet current design standards with regards to lane and shoulder width, hills (vertical grade), curves (horizontal curvature), and sight distance.
- Some areas of existing US 219 exhibit a crash history higher than the statewide average for similarly designed roads.
- Existing traffic volumes, and a high (17%) truck percentage contribute to safety concerns.

Performance Measure(s):

- Achieve approximately 15%, or greater, reduction in traffic volume on existing US 219.
- Achieve approximately 25%, or greater, reduction in truck volumes on existing US 219.
- Achieve a 40% to 60% reduction in crashes; available research^{13 14} suggests that converting a two-lane undivided rural highway into a four-lane divided highway can achieve this reduction.

3. Desired Facility Performance

This section summarizes the Performance Measures developed as part of the previous deficiencies and needs section.

Upon completion of the ADHS Corridor N between Meyersdale, Pennsylvania and I-68 in Maryland, it is desired by the SHA and PennDOT, along with local and regional planning agencies, that the corridor will:

Regional & Local Economics

- Result in a net increase in the number of miles of the ADHS Corridor N open to traffic.

¹³ *Effects of Geometric Characteristics of Rural Two-Lane Roads on Safety, Final Report*, Samuel Labi, June 2006 (FHWA/IN/JTRP-2005/2)

<http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1709&context=jtrp>

¹⁴ *Safety Effects of the Conversion of Rural Two-Lane Roadways to Four-Lane Roadways*, Summary Report, US Department of Transportation, FHWA, Highway Safety Information System, November 1999. <https://www.fhwa.dot.gov/publications/research/safety/humanfac/pdfs/99206.pdf>



- Currently (early 2016) in Pennsylvania seven miles of the 65.6 mile long corridor (US 22 near Ebensburg, Pennsylvania to the Maryland state line) remain as a two-lane facility and 11 miles are currently under construction, as a four-lane facility, from Somerset to Meyersdale, Pennsylvania with an anticipated opening year of 2018.
- Currently (early 2016) in Maryland all 2.5 miles of Corridor N (Maryland state line to I-68) remain as a two-lane facility.

Mobility

- Reduce north-south travel time within the study area by approximately 15% or greater

Safety

- Achieve approximately 15%, or greater, reduction in traffic volume on existing US 219.
- Achieve approximately 25%, or greater, reduction in truck volumes on existing US 219.
- Achieve a 40% to 60% reduction in crashes; available research^{15 16} suggests that converting a two-lane undivided rural highway into a four-lane divided highway can achieve this reduction.

Chapter 6 contains the screening of alignments. Alignments were screened initially to determine if they met the goals, needs and performance measures. The second screening considered the environmental and cultural impacts for the alignments that made it through the initial screening.

¹⁵ *Effects of Geometric Characteristics of Rural Two-Lane Roads on Safety, Final Report*, Samuel Labi, June 2006 (FHWA/IN/JTRP-2005/2)

<http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1709&context=jtrp>

¹⁶ *Safety Effects of the Conversion of Rural Two-Lane Roadways to Four-Lane Roadways*, Summary Report, US Department of Transportation, FHWA, Highway Safety Information System, November 1999. <https://www.fhwa.dot.gov/publications/research/safety/humanfac/pdfs/99206.pdf>



Chapter 4 – Linking Planning to the Environment

This chapter describes the existing natural, socioeconomic, and cultural environment of the study area. PEL is a planning-level study and as such relies upon existing, readily available data for its analysis. Information for this chapter was gathered from a variety of existing databases, published sources, previous studies, field views and interviews with local residents and municipal officials. Data compiled from these efforts function as a baseline for the alignment screening that is documented in **Chapter 6**.

Data presented in **Chapter 4** was obtained during the former NEPA efforts. This data was reviewed and updated in the summer of 2014, also as part of the former NEPA efforts. In addition, some data has been supplemented with current secondary source information, such as GIS, resource agency mapping/databases and other readily available information. Note that some of the detailed field studies data obtained from the prior NEPA studies is only available within the footprints of the alignments that were studied in detail during the former NEPA efforts. Although secondary source data is typically the level of documentation for a PEL study, more detailed information is presented below and within this PEL document due to the data being readily available from prior NEPA studies.

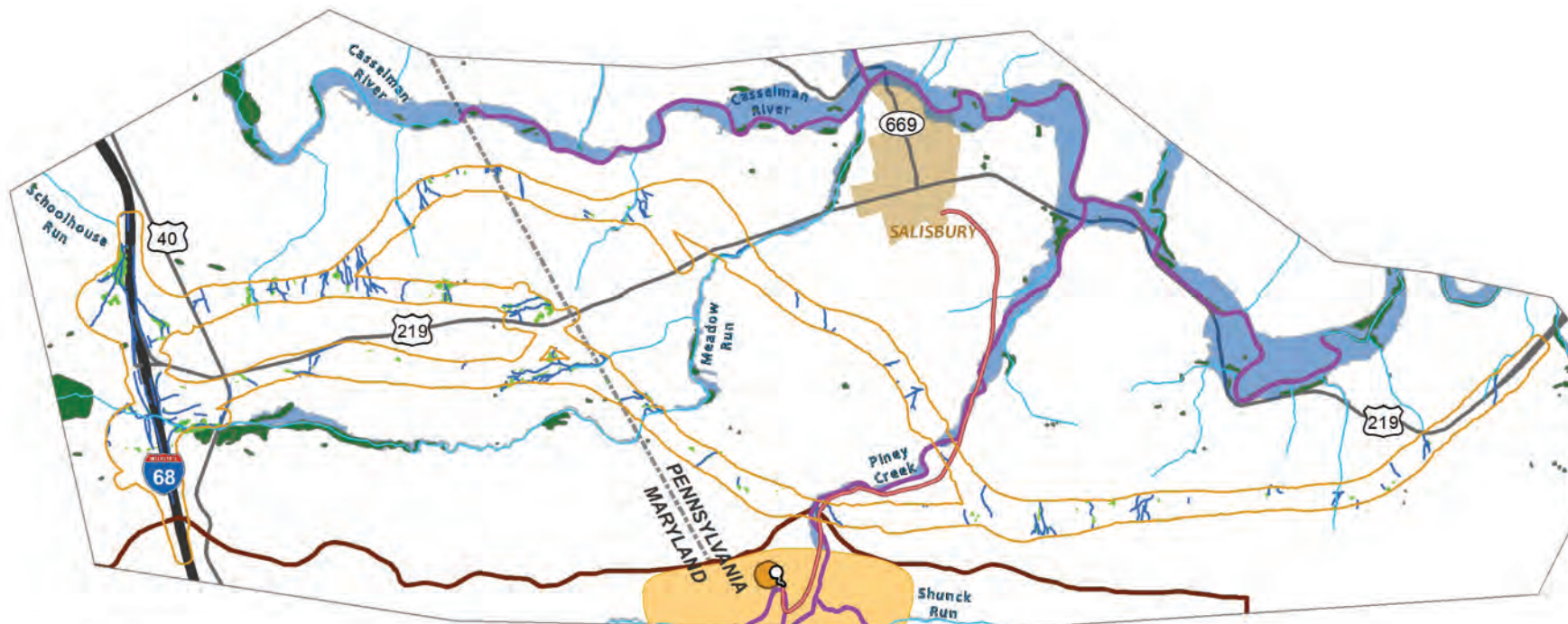
1. Natural Resources

a. Aquatic Resources

Initial aquatic resource investigations were conducted in 2006 and updated in 2014 as part of the former NEPA efforts. **Figure 4-1, Aquatic Resources** depicts the location of streams, wetlands and groundwater resources within the study area. In order to obtain consistent aquatic resource information for the screening of all alignments (**Chapter 6**), updated National Wetland Inventory (NWI) wetland and National Hydrography Dataset (NHD) stream information were obtained and added to the GIS.

Streams

The PEL study area is located primarily within the Casselman River watershed. The Casselman River is the largest watercourse located within the study area as well as the principle receiving watershed, flowing (northwest) through the study area. The study area encompasses the middle 8.2 miles of the Casselman River and contains a contributing drainage area, excluding sub-watersheds, of 6,145 acres. Drainage enters the mainstem of the river either directly via upper headwater unnamed tributaries or indirectly through Piney Creek, Meadow Run, Tub Mill Run, School House Run and Flag Run. Piney Creek and Meadow Run comprise the primary sub-watersheds within the study area. A small portion of the study area in the far southeastern corner is located within the Savage River watershed. The Savage River will not be impacted.



- Findley Spring
- Approved Trout Waters
- NHD Streams
- Salisbury Commission Water Line
- Delineated Streams
- Delineated Wetlands
- Limit of Delineated Resources
- Urban Area
- National Wetland Inventory
- 100-Year Floodplain
- Source Water Protection Zone 1
- Source Water Protection Zone 2
- Source Water Protection Zone 3

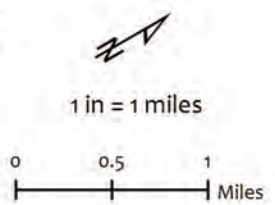


Figure 4-1
Aquatic Resources

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Streams within the study area portion of alignments studied in detail as part of the former NEPA efforts were delineated in 2006 and in 2014. During the 2014 delineation field studies, 170 watercourses were identified, 69 of which were perennial streams.

The Maryland Biological Stream Survey (MBSS) has four monitoring stations located within or in close proximity to the study area. According to MBSS monitoring, the benthic macroinvertebrate communities in the Casselman River, an Unnamed Tributary to the Casselman River, Schoolhouse Run, and Meadow Run are all rated as “Fair”, indicating only slight degradation. The fish communities varied among the watercourses, with ratings of “Fair” in the Casselman River, “Good” in an Unnamed Tributary to the Casselman River, “Very Poor” in Schoolhouse Run, and “Poor” in Meadow Run.

The Casselman River, Piney Creek and Meadow Run watersheds are managed by state agencies to support fish and other aquatic flora and fauna typically suited for both cold and warm/cool water habitats. Streams identified within the Casselman River watershed in Pennsylvania are managed for water quality to support Cold Water Fishes (CWF), in accordance with Pennsylvania Chapter 93 regulations. Piney Creek is additionally classified as being stocked with trout by the Pennsylvania Fish and Boat Commission (PFBC) and supports the natural reproduction of trout. Per the Pennsylvania Code, Chapter 105.17, wetlands associated with streams hydrologically connected to a wild trout stream or habitat for threatened and endangered species are deemed exceptional value. Additionally, due to the presence of the longnose sucker and the natural trout reproduction, the PFBC is considering reclassifying Piney Creek to either High Quality or Exceptional Value. The potential for trout survivorship or stocking "holdover" from year to year has been documented within Piney Creek, but is limited by seasonal fluctuations in water temperatures. Meadow Run is not currently stocked with trout by either the Pennsylvania or the Maryland state agencies even though habitat and/or water quality is suitable. None of these streams sustain viable wild trout fisheries. However, suitable habitat characteristics have been identified, and sporadic or limited natural reproduction of brook trout (*Salvelinus fontinalis*) occur within the upper reaches of Piney Creek. Additionally, Piney Creek is known to contain state listed aquatic Species of Special Concern (Refer to Chapter 4, Section 1.c., Species of Special Concern).

Within the Maryland portion of the study area, the Casselman River, Meadow Run, and Schoolhouse Run all fall within a Stronghold Watershed of high importance. Stronghold Watersheds are designated by MDNR as systems where rare, threatened, or endangered species of fish, amphibians, reptiles, or mussels are present in the highest numbers, relative to the rest of the State.

Overall limiting factors influencing both water quality and aquatic community composition within the study area streams include man-induced activities, such as timber harvesting and agricultural practices, which result in increased silt/sediment



deposition, thermal increases and nutrient loading. Acidic discharges associated with historic surface and deep-mining operations also contribute to water quality degradation. The Casselman River, Piney Creek, and Meadow Run all have completed Total Maximum Daily Loads (TMDLs) for designated pollutants (Category 4a) or are in need of a TMDL (Category 5) to address current or historical anthropogenic impacts. **Table 4-1, Stream Classifications and Special Protection Waters Designations**, lists streams within the study area and their associated state agency management classifications, as well as 303(d) impairment listings and TMDL status category. The Pennsylvania Natural Heritage Program also identified Miller Run within the Casselman River watershed and Little Piney Creek within the Piney Creek watershed as Conservation Watersheds and Tub Mill as an Enhancement Watershed. Conservation watersheds exhibit high biodiversity and stream quality and Enhancement Watersheds show slight landscape disturbances and are prime candidates for habitat enhancement.

**Table 4-1
Stream Classifications and Special Protection Waters Designations**

Watercourse	PA DEP Chapter 93 Classification	PFBC Stream Designation	Maryland Department of Natural Resources Stream Designation	303(d) Impairment Listings (Category)
Casselman River Watershed				
Casselman River	Warm Water Fishes (WWF)	Approved Trout Water (ATW) – Stocked from PA/MD state line downstream to Boynton***	Special Trout Management Area.	MD - chlorides (5) PA - metals and pH (4a and 5)
			Use IV – Recreational Trout Waters.	
			Use I – Protection of fish and aquatic life and contact recreation*	
Unnamed Tributaries to the Casselman River	Cold Water Fishes (CWF)	N/A	Use I	N/A
Tub Mill Run Watershed				
Tub Mill Run	CWF	ATW – Stocked from Compton, PA downstream to mouth at Casselman River, Supports Natural Reproduction of Trout***	N/A	N/A
Unnamed Tributaries to Tub Mill Run	CWF	N/A	N/A	N/A
Flag Run Watershed				
Flag Run	CWF	N/A	N/A	N/A
Unnamed Tributaries to Flag Run	CWF	N/A	N/A	N/A



Table 4-1

Stream Classifications and Special Protection Waters Designations

Watercourse	PA DEP Chapter 93 Classification	PFBC Stream Designation	Maryland Department of Natural Resources Stream Designation	303(d) Impairment Listings (Category)
Schoolhouse Run Watershed				
Schoolhouse Run	N/A	N/A	Use I**	N/A
Unnamed Tributaries to Schoolhouse Run	N/A	N/A	N/A	N/A
Piney Creek Watershed				
Piney Creek	CWF	ATW – Stocked from PA/MD state line downstream to mouth at Casselman River, Supports the Natural Reproduction of Trout	Use III (Natural Trout Waters)*	MD - temperature (5)
Unnamed Tributaries to Piney Creek	CWF	N/A	N/A	N/A
Meadow Run Watershed				
Meadow Run	CWF	N/A	Use I	MD - pH (4a) PA - siltation (5)
Unnamed Tributaries to Meadow Run	CWF	N/A	N/A	N/A

*The portions of the Casselman River and Piney Creek in Maryland are located outside of the PEL Study Area in Maryland

** Schoolhouse Run is just outside of the study area in Maryland.

*** These streams may provide recreational opportunities.

Wetlands

Wetlands include palustrine environments and other lentic or “non-flowing” bodies of water such as reservoirs, lakes, and ponds classified as lacustrine or deep water habitats. Palustrine habitat classifications are further defined to include open water, emergent, scrub/shrub and forested types in accordance with *United States Fish and Wildlife Service (USFWS) Classification of Wetlands and Deepwater Habitats for the United States* (Cowardin et. al., 1979). Wetlands located within the study area are fresh-water or non-tidal wetlands.

Secondary source mapping was reviewed to determine the probability of wetland presence. Hydric and hydric inclusion soil types, National Wetlands Inventory wetland



mapping, and aerial photo interpreted wetland areas were identified within the study area and depicted on **Figure 4-1, Aquatic Resources**.

Additionally as part of the former NEPA efforts, all wetland boundaries within the alignments studied in detail during the former NEPA efforts were delineated in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0* (USACE, 2012). The delineation included re-verifying formerly delineated wetlands in accordance with the current methodology. The function and value of delineated wetlands were analyzed in accordance with the *US Army Corps of Engineers (USACE), New England District, The Highway Methodology Workbook Supplement (USACE, 1999)*.

One hundred forty-seven wetlands were identified within the alignments studied in detail during the former NEPA efforts. Wetlands included emergent, scrub-shrub, and/or forested. Wetlands within the floodplain of Piney Creek or its tributaries are classified as Exceptional Value, due to the creek's support of natural reproducing trout. The study area crosses tributaries in Maryland that are associated with Non-tidal Wetlands of Special State Concern (NTWSSC) downstream. NTWSSCs are regulated by the Maryland Department of the Environment (MDE).

The most extensive wetland within the study area is a floodplain type systems located along Meadow Run and is locally known as "Little Meadows Wetland Complex." Little Meadows is 20+ acres and has been designated by the Maryland Department of Natural Resources as a moderately significant natural heritage program resource. Little Meadows contains the necessary interspersed of open water, emergent and scrub shrub habitats that would entice transient or migratory waterfowl on a seasonal basis, as well as resident or migratory songbirds, wading birds and other state flora and fauna of special concern. This system also contains a sufficient surface area and/or volume of water to support multiple trophic levels of aquatic dependent species.

Floodplains

US Department of Transportation (DOT) Order 5650.2, *Floodplain Management and Protection (USDOT, 1979)*, prescribes policies and procedures for ensuring that proper consideration is given to the avoidance and mitigation of floodplain impacts. DOT Order 5650.2 defines "significant floodplain encroachment" as an encroachment resulting in one or more of the following construction or flood-related effects:

- A considerable probability of loss of human life;
- Likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility; and
- A notable adverse impact on natural and beneficial floodplain values.



The order further defines natural and beneficial floodplain values to include, but not be limited to natural moderation of floods, water quality maintenance, groundwater recharge, fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture and forestry. The Federal Emergency Management Agency (FEMA) recorded 100-year floodplains in the vicinity of the study area along Piney Creek in Pennsylvania, Meadow Run in Maryland, and the Casselman River in both Pennsylvania and Maryland. See **Figure 4-1, Aquatic Resources**.

Hydrology and Groundwater

Springs and seeps are found where groundwater discharges to the surface along fractures, bedding planes, between two rock types of differing permeability, and where a significant change in slope truncates the water table. Potable water is supplied to the Borough of Salisbury via ground water from a flowing artesian spring (Findley Spring) located approximately 3.5 miles southeast of Salisbury, Pennsylvania. The spring flows from an outcrop of the Loyalhanna Limestone on the steep east flank of the Berlin syncline (Allegheny Mountain). Water is carried via pipeline along Piney Creek to an underground reservoir and a 70,000 gallon storage tank located in Salisbury, Pennsylvania. Findley Spring maintains a constant flow of 90 gallons per minute (gpm). Water quality is described as high, with the only treatment being chlorination. Seeps also occur in other rock types in the study area; however, flow is not consistent and water quality is reportedly poor.

The water source to the spring generally comes from the south, northward to the spring from Red Run. An additional water supply is from the top of the ridge, east of the spring westward to the spring. A potential recharge area is located north of the spring and flows southward along the ridge.

The PEL study team met with PA DEP and Salisbury Borough in July of 2015 to discuss an overview of alignments in relation to the location of Findley Spring and its water source. Findley Spring, its water supply line and well head protection areas are depicted on **Figure 4-1**. The water supply line was located in GIS based on as-built mapping and bearings provided by Salisbury Borough.

There is no recognized sole source aquifer in the study area. The Sole Source Aquifer (SSA) Program (authorized by Section 1424(e) of the Safe Drinking Water Act) allows communities to petition the United States Environmental Protection Agency (USEPA) for protection when a community is dependent on a single source of drinking water. Findley Spring (Loyalhanna Limestone) is not on the USEPA Region III list of protected aquifers.

b. Vegetation & Wildlife

Land use / land cover types within the study area are shown on **Figure 4-2, National Land Cover Database Land Use. Table 4-2, Land Use/Land Cover Summary** identifies the area and percent cover of Land Use / Land Cover types present within



- | | | | | | |
|--|-----------------------------|--|------------------|--|------------------------------|
| | Municipality | | Barren Land | | Hay/Pasture |
| | Open Water | | Deciduous Forest | | Cultivated Crops |
| | Developed, Open Space | | Evergreen Forest | | Woody Wetlands |
| | Developed, Low Intensity | | Mixed Forest | | Emergent Herbaceous Wetlands |
| | Developed, Medium Intensity | | Shrub/Scrub | | |
| | Developed, High Intensity | | Herbaceous | | |

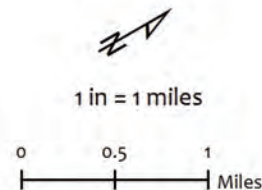


Figure 4-2
National Land Cover Database Land Use
 US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland



**Table 4-2
Land Use/Land Cover Summary**

Habitat Classification*	Land Use/Land Cover Area (Acres)	Percent of Land Use/Land Cover Types within the Study Area
Cultivated Crops	510	3.2
Hay/Pasture	3162	19.7
Barren Land	248	1.5
Developed, High Intensity	17	0.1
Developed, Low Intensity	178	1.1
Developed, Medium Intensity	129	0.8
Developed, Open Space	1107	6.9
Deciduous Forest	9828	61.2
Evergreen Forest	441	2.7
Mixed Forest	157	1.0
Herbaceous	3	0.0
Shrub/Scrub	197	1.2
Open Water	64	0.4
Emergent Herbaceous Wetlands	4	0.0
Woody Wetlands	15	0.1

* Color coding roughly matches colors in **Figure 4-2**.

the study area. The United States Geological Survey (USGS) National Land Cover Database (NLCD) serves as the definitive Landsat-based, 30-meter resolution, land cover database for the Nation.

The expanse and diversity of terrestrial wildlife habitats documented within the study area supports a variety of game and non-game species typical of the region. Wildlife species observed within the study area include 16 species of mammals, 48 species of birds, 7 reptiles and 10 species of amphibians¹⁷.

During coordination with the Maryland Department of Natural Resources (MD DNR), the agency noted that Forest Interior Dwelling Bird Species (FIDS) are declining in Maryland and throughout the eastern United States. The conservation of FIDS habitat is strongly encouraged by the MD DNR. Large tracts of forestland are present throughout the study area, which would provide habitat for FIDS.

¹⁷ L.R. Kimball, "Terrestrial Wildlife and Species of Special Concern Habitat Report, US 6219," June 2006.



c. Species of Special Concern

Species of special concern include species listed as endangered, threatened, rare, unique, uncommon or in population decline by federal and state agencies. Federally listed threatened and endangered species are protected by 16 U.S.C. § 1531-1543, *The Endangered Species Act* (1973). Pennsylvania listed threatened and endangered species are protected by 30 Pa.C.S. §§ 2102 and 2305, *Pennsylvania Fish and Boat Code*; 32 P. S. §§ 5301 – 5314, *The Wild Resource Conservation Act* (Act 170 of 1982); and 34 Pa.C.S. § § 2102, 2722(g)(2) and 2901(b) *The Game and Wildlife Code*. Maryland listed threatened, endangered, and in need of conservation are protected by 10 Md.C.S. §§ 2A-01-09 (2010), *The Nongame and Endangered Species Conservation Act*. Species of special concern not protected by legislation may still have management recommendations regarding their encroachment. The Pennsylvania Natural Diversity Inventory (PNDI) and Maryland species of concern information was updated in 2014.

Coordination with federal and state agencies revealed the identification of known species of special concern or habitats within the vicinity of the study area. **Table 4-3, State and Federal Species of Special Concern**, lists state and federal identified species of concern potentially within the study area vicinity that may be affected.

Federal Species of Concern

The federal agency responsible for the protection of all federally listed threatened and endangered species identified in the Endangered Species Act, as well as listed critical habitats, is the USFWS. Both the Pennsylvania and Maryland USFWS sections were contacted since the study area is located within two federal jurisdictions.

The Indiana Bat (*Myotis sodalist*) has been federally listed as endangered since 1967 due to people disturbing hibernating bats in caves during the winter months. Indiana bats are vulnerable to disturbance because they hibernate in large numbers in only a few caves. The northern long-eared bat (*Myotis septentrionalis*) has been federally listed as threatened with interim 4(d) rule since February 16, 2016. The northern long-eared bat is one of the species of bats most impacted by the disease known as white nose syndrome. Although not federally listed, the eastern small-footed bat (*Myotis leibii*) is listed as state threatened in Pennsylvania and has also been heavily affected by white nose syndrome. Studies conducted as part of the former NEPA efforts included all three species of bats; therefore, even though the eastern small-footed bat is not federally listed, they are discussed together in this section.

Table 4-3 State and Federal Species of Special Concern		
Common Name	Scientific Name	Status
PLANTS		
willow aster	<i>Aster praeltus</i>	Maryland Rare
American bugbane	<i>Cimicifuga americana</i>	Maryland Rare
slender wood reedgrass	<i>Cinna latifolia</i>	Maryland Threatened
yellow clintonia	<i>Clintonia borealis</i>	Maryland Threatened
goldthread	<i>Coptis trifolia</i>	Maryland Endangered
linear-leaved willowherb	<i>Epilobium leptophyllum</i>	Maryland Rare
ostrich fern	<i>Matteucia struthiopteris</i>	Maryland Rare
white-fruited mountainrice	<i>Oryzopsis asperifolia</i>	Maryland Threatened
purple meadow-parsnip	<i>Thaspium trifoliatum</i>	Maryland Endangered
goose-foot cornsalad	<i>Valerianella chenopodifolia</i>	Maryland Endangered
Appalachian violet	<i>Viola appalachensis</i>	Maryland Rare
INSECTS		
pepper and salt skipper	<i>Amblyscirtes hegon</i>	Maryland In Need of Conservation
REPTILES		
wood turtle	<i>Clemmys insculpta</i>	Maryland Rare
AQUATIC ORGANISMS		
longnose sucker	<i>Catostomus catostomus</i>	Pennsylvania & Maryland Endangered,
hellbender	<i>Cryptobranchus alleghaniensis</i>	Maryland Endangered
mudpuppy	<i>Necturus maculosus</i>	Maryland Endangered
stonecat	<i>Noturus flavus</i>	Maryland Endangered
squawfoot mussel	<i>Strophitus undulates</i>	Maryland In Need
MAMMALS		
porcupine	<i>Erethizon dorsatum</i>	Maryland In Need of Conservation
Indiana bat	<i>Myotis sodalis</i>	Federal Endangered, Pennsylvania Endangered, Maryland Endangered
northern long-eared bat	<i>Myotis septentrionalis</i>	Federally Threatened
eastern small-footed bat	<i>Myotis leibii</i>	Pennsylvania Threatened
smoky shrew	<i>Sorex fumeus</i>	Maryland In Need of Conservation
BIRDS		
blackburnian warbler	<i>Dendroica fusca</i>	Maryland Threatened
alder flycatcher	<i>Empidonax alnorum</i>	Maryland In Need of Conservation
Bewick's wren	<i>Thryomanes bewickii</i>	Maryland Rare



Studies to date have included a 2005 investigation of the current study area for the presence of portals (including mine adits, caves, and other openings larger than 6-inches), which were possible entrances to potential bat hibernacula. This investigation resulted in 28 portals being investigated and four portals found to be openings to bat hibernacula. Portals investigated during the study were identified through desktop review of historic mine mapping provided by state environmental resource agencies, review of active and closed mine permits, field views of the study area where crews were instructed to look for any potential mine openings, and discussions with local residents knowledgeable about the study area.

In 2014 during the former NEPA efforts, field work was conducted to identify and map potential portals using criteria outlined in the *Protocol for Assessing Bat Use of Potential Hibernacula* (USFWS, 2012). Rocky habitat within the study area was also noted that could potentially be summer bat habitat. The potential portals identified through these efforts, including the rocky habitats, were mapped, and as part of the 2014 study, were field investigated for potential as bat habitat.

A mist netting bat survey was conducted in the summer of 2014. During the survey, 30 sites were inventoried in Pennsylvania and Maryland and 127 bats representing five species were captured. This included 82 Big brown bats (*Eptesicus fuscus*), 40 eastern red bats (*Lasiurus borealis*), one Little brown bat (*Myotis lucifugus*), two northern long-eared bat (*M. septentrionalis*), and two eastern small-footed bat (*M. leibii*). Of these species, the two northern long-eared and two eastern small-footed bat were targeted for additional surveying using radio-tracking, as they are listed as threatened or endangered at the state or federal level. Both eastern small-footed bat were captured in Pennsylvania and tracked to man-made structures. Although no Indiana bats were identified, the survey confirmed the presence of federally listed northern long-eared bat and state listed eastern small-footed bat within the study area.

In addition to sites surveyed, one known designated Priority 3 Hibernacula is located in the vicinity of the study area. Indiana bat has been known to use the Salisbury Mine Cave, which is located just east of the study area along Piney Creek. PGC conducted annual (1986-1997) and biennial (1999-2005) bat identification surveys at the Salisbury Mine Cave and has identified small populations of Indiana bat using the hibernacula. No surveys have been conducted by PGC since 2005. While the mine does not currently appear to have a large population of Indiana bats, it does possess a fairly unique condition within Pennsylvania. Based on the presence of a known hibernaculum, the study area would be utilized as foraging habitat for Indiana bats during the fall and spring swarms. The presence of the Indiana bat in the study area during the summer for roosting, foraging and for maternity habitat has not been proven or documented to date. Note that locations of bat hibernacula, roost sites, etc. are not mapped in this document to protect those sensitive resources.



Pennsylvania Species of Concern

In Pennsylvania, three agencies are responsible for the protection of species of special concern and include the Pennsylvania Department of Conservation and Natural Resources (PA DCNR), PFBC, and PGC. PA DCNR is responsible for the protection of Pennsylvania state listed plant species, natural communities, terrestrial invertebrates, and geologic features. PFBC is responsible for the protection of Pennsylvania state listed fish, reptiles, amphibians, and aquatic organisms. PGC is responsible for the protection of Pennsylvania state listed birds and mammals.

In Pennsylvania, the Longnose sucker (*Catostomus catostomus*) and the eastern small-footed bat (*Myotis leibii*) were identified by agencies as potentially within the study area. Survey efforts to identify eastern small-footed bats within the study area was previously discussed. During previous field investigations, no listed species were identified within the study area, although no formal survey was conducted, other than for bat species. Further coordination and studies will be required if a stand-alone project progresses.

Maryland Species of Concern

In Maryland, the MD DNR is responsible for the protection of rare, threatened and endangered animal and plant species. In Maryland, 27 species of animals and plants have been identified by MD DNR as potentially within the study area. During previous field investigations, no listed species were identified within the study area, although no formal survey was conducted.

d. Agriculture

Pennsylvania's economy is, and has historically been, based substantially on agriculture. In 2012, Somerset County, Pennsylvania ranked first in the Commonwealth of Pennsylvania for production of oats, and eighth for production of milk from cows. The 2012 Agricultural Profile for Garrett County, Maryland lists the average farm size as 143 acres. The total number of farms in 2012 was 667 and total farmland was 95,197 acres.

Farmland protection in the study area is summarized briefly below and is depicted on **Figure 4-3, Agricultural Resources**. Pennsylvania and Maryland data presented was collected in 2003; however, according to county and township information in 2014, no changes to the data have occurred.

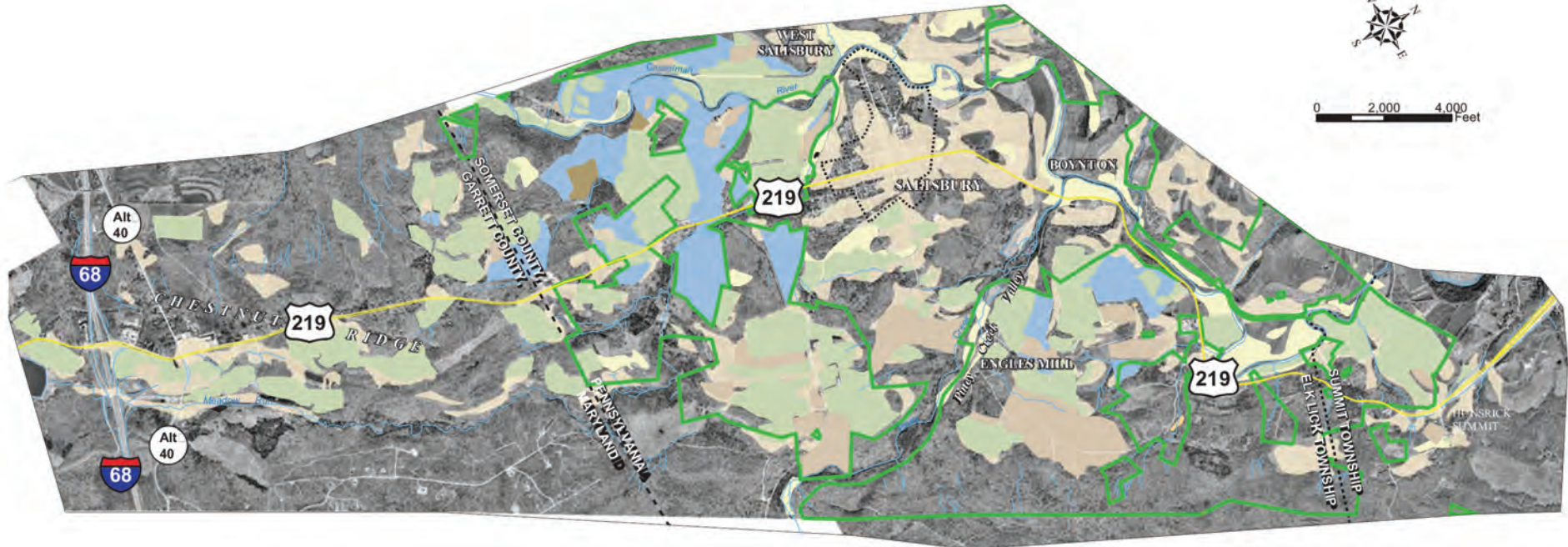
As part of the preliminary data collection in 2003, lands within the study area in agricultural production were identified. The land was evaluated in terms of its 2003 land use based on tax mapping, aerial photographs, windshield surveys, and limited field views. **Figure 4-3, Agricultural Resources**, identifies productive agricultural land in the study area.



This information was verified during the initial round of farmer interviews in March 2003. Local municipal government offices, Somerset County (Pennsylvania) Agricultural Land Preservation Board, and the Somerset (Pennsylvania) and Garrett (Maryland) County USDA's Natural Resource Conservation Service offices were also contacted and asked to provide information regarding government programs, tax incentive programs, farmland soils, and conservation easement programs.

Property owners with land in agricultural use in Pennsylvania and Maryland that might be impacted were interviewed in 2003. The interviewees included full-time dairy farmers, maple syrup producers, livestock feed producers, and part-time beef cattle and crop farmers. Additional interviews with the full-time farm operators in Pennsylvania were conducted in January of 2004. Cropland and tapped maple trees are the primary productive agricultural land uses within the study area. Crops grown include corn, oats, wheat, and alfalfa. Pastures are also present. Information obtained from the interviews is depicted on **Figure 4-3, Agricultural Resources** and **Figure 4-4, Farm Operators**. The interviews identified no known permanent agricultural conservation easements or deed restrictions in the study area.

The following table (**Table 4-4**) summarized the full-time and part-time farming operations that could be potentially affected, **Figure 4-4, Farm Operators**. Information provided is based on readily available data from 2003, 2004, and 2007. A review of tax mapping in the study area in 2014 revealed no change in ownership of these properties; therefore, no substantial changes in this information would be anticipated.

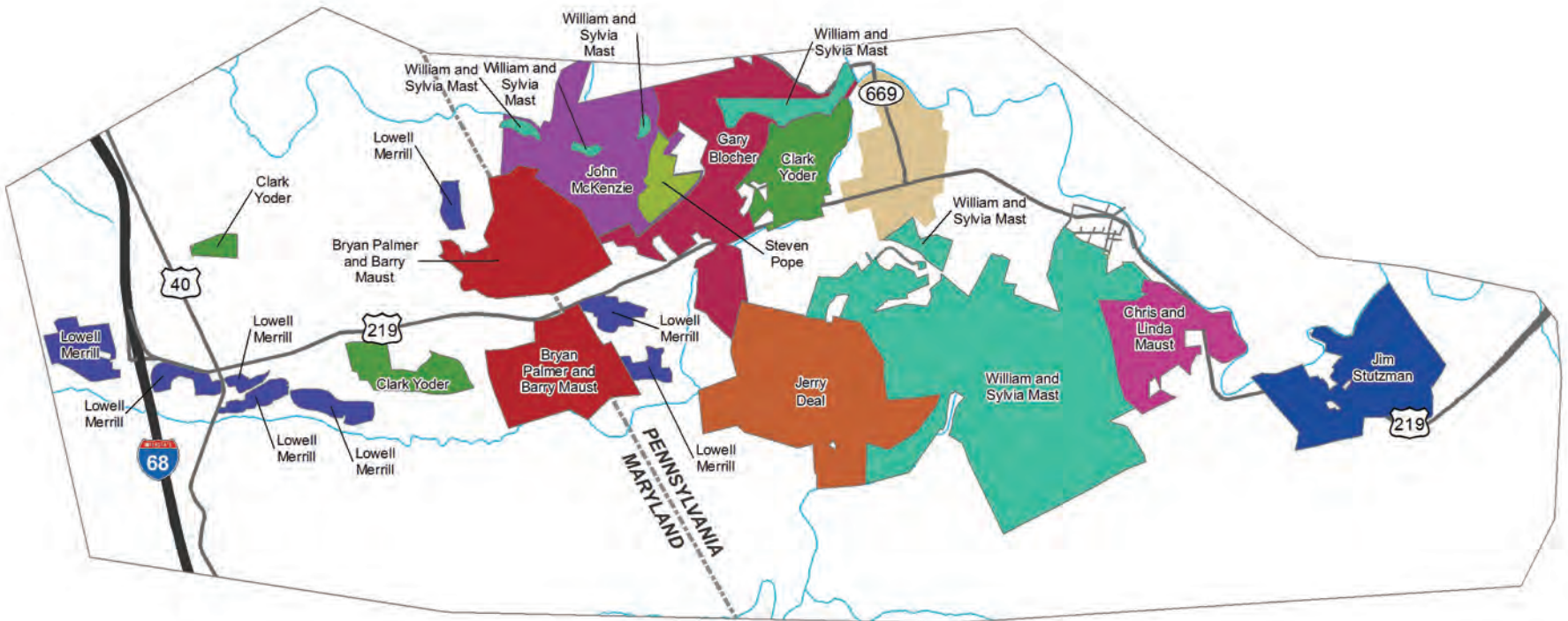


Legend

- Clean and Green Areas
- Cropland
- Pasture
- Conservation Reserve Enhancement Program (CREP)
- Maple Sugar Production
- Orchards
- Prime Agricultural Soils
- Agricultural Soils of Statewide Importance

Figure 4-3
Agricultural Resources

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



- | | | |
|------------------------------|--------------|-------------------------|
| Municipality | Clark Yoder | John McKenzie |
| Farm Operators | Gary Blocher | Lowell Merrill |
| Bryan Palmer and Barry Maust | Jerry Deal | Steven Pope |
| Chris and Linda Maust | Jim Stutzman | William and Sylvia Mast |

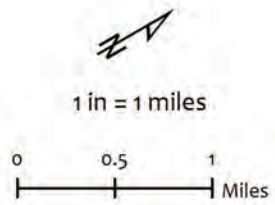


Figure 4-4
Farm Operators

US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland

**Table 4-4
Farm Operations**

Name/Full or Part-time (FT/PT)	Location	Size of Operation (acres)*	Type of Farming	Preservation Program
Jim and Marty Stutzman (FT)	Pennsylvania	330	Diary operation, occasionally sell beef, pig, grain and hay, produces maple syrup	None
Christopher Maust (PT)	Pennsylvania	210	Raises beef cattle, produces maple syrup	PA Clean and Green
Mast – Piney Run Farm (FT)	Pennsylvania	1,263	Dairy operation, beef cattle, produces maple syrup	PA Clean and Green
Deal (FT)	Pennsylvania	523	Dairy operation	PA Clean and Green
Yoder (FT)	Pennsylvania / Maryland	276	Dairy operation	PA Clean and Green Maryland Agricultural Land Preservation program
Blocher – Milroy Farms (FT)	Pennsylvania	407	Produces maple syrup	None
Pope (PT)	Pennsylvania	56	Produces maple syrup, hay	None
McKenzie/Miller (PT)	Pennsylvania	329	Produces maple syrup, beef	Conservation Reserve Enhancement Program (CREP)
Palmer/Maust (PT)	Pennsylvania / Maryland	518	Corn, hay, produces maple syrup	None
Merrill (FT)	Maryland	140	Various crops	None

* Size of operation provided in total acreage within the overall property boundaries (i.e., acreage provided is not an indicator of amount of cropland, pasture land, etc. but simply the overall size of the operation).



e. Geology & Mining

Geology

The study area is situated within the Allegheny Mountain section of the Appalachian Plateaus physiographic province, and lies on the eastern limb of the Berlin syncline, a basin formed by folding of the underlying bedrock. The edges of the basin are expressed topographically as two long, even-crested mountains: Meadow Mountain (Maryland) and Allegheny Mountain (Pennsylvania) on the east, and Negro Mountain on the west.

Bedrock is composed of repeated sequences of gray sandstone, shale, siltstone, claystone, limestone, and coal, with shale being the predominant lithology, and is divided into six groups and formations based on their lithologic characteristics. **Table 4-5, Estimated Thickness of Formation and Groups**, identifies the estimated thicknesses in descending order of the groups and formations present in the study area.

Formation/Group	Estimated Thickness meters (feet)
Casselman Formation	152.4 (500)
Glenshaw Formation	114.3 (375)
Allegheny Group	85.3 (280)
Pottsville Group	61.0 (200)
Mauch Chunk Formation	61.0 (200)
Loyalhanna Limestone (Greenbrier in MD)	15.2 (50)

A Phase I and Phase II Geotechnical Engineering Report was prepared within limited locations in the study area in 2003-2006. The study area crosses rugged topography and roadway construction will require areas of deep cuts and high embankments. Preliminary borings were completed throughout the study area; however, detailed geologic data is recommended in areas of potential issues and/or if a stand-alone project is proposed. Although limestone bedrock is present, no sinkhole development is anticipated due to karst terrain.

One concern in the study area is the potential presence of acid bearing rock (ABR). Areas with acid producing minerals may present difficulties associated with acid drainage when excavated. Based on DCNR mapping the study area has geologic units that contain minerals with a high acid-producing potential. Pyrite was identified in some of the borings in all of the alignments and further testing was recommended to further evaluate the potential of acid bearing rock in the study area (2006 Preliminary Design Phase II Alternatives Geotechnical Engineering Report). The borings conducted during



the 2006 study; however, were not abundant enough to make a determination on exact locations of potential bedded or vein pyrite. A second phase of borings will be conducted in future NEPA studies to better identify potential pyrite locations. For this PEL study, the 2005 Pennsylvania Geological Survey Map was reviewed. This map identifies “geologic units containing potentially significant acid producing sulfide minerals.” Based on a review of this map along with the other available information from the former NEPA efforts, it appears that the greatest potential for ABR would be in the area where all alignments are in the same location; therefore, it is not anticipated to influence alignment selection.

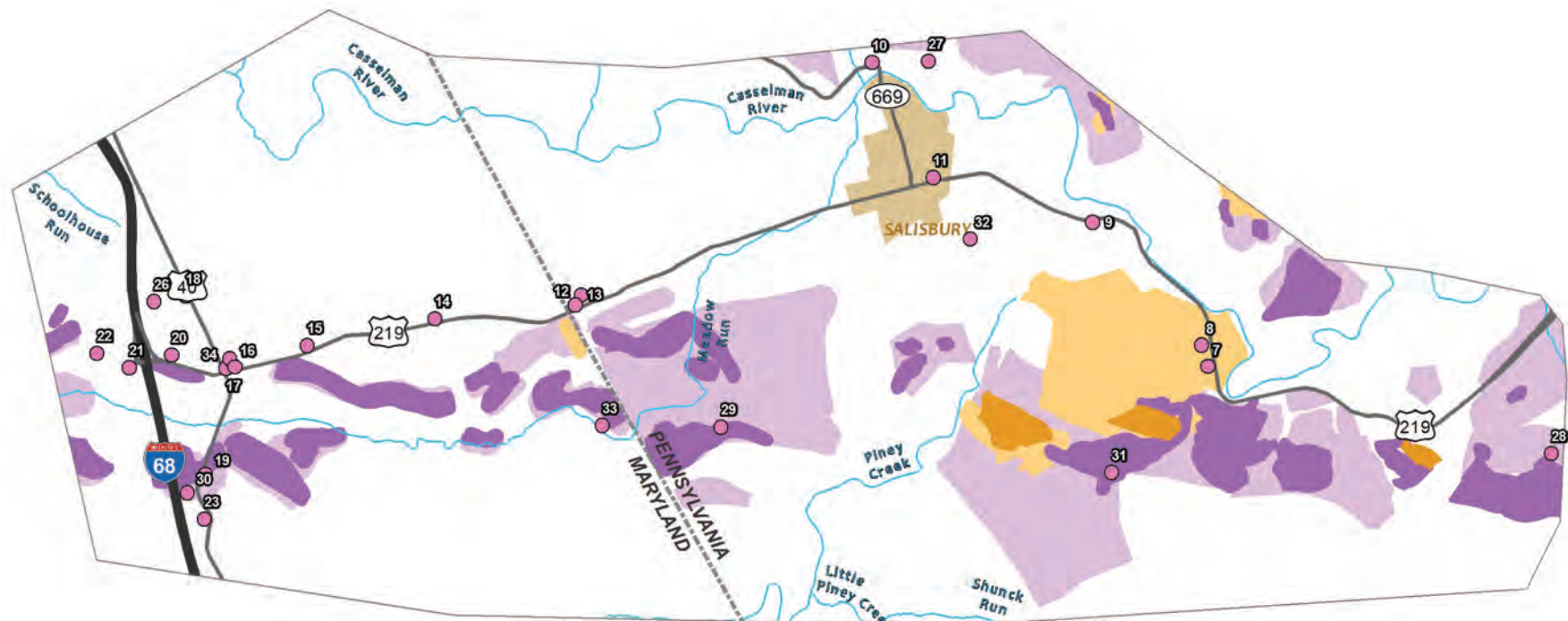
Bedrock samples will be collected as part of the geotechnical drilling activities for laboratory Acid-Base Accounting (ABA) testing. If the ABA assessment determines the bedrock has a high potential for acid producing bedrock, then special treatments of the excavated bedrock and the exposed cut slopes will be incorporated.

Mining

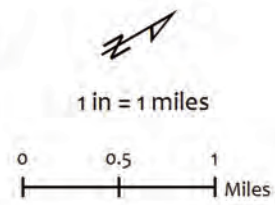
The study area has been extensively mined for coal using both deep and surface mining methods, see **Figure 4-5, Mine Permit Boundaries and Waste Sites**. Seventeen coal seams are known to have been mined in the study area.

In the eastern half of the study area, the more valuable coal seams of the Glenshaw formation and the Allegheny group occur near the surface. Consequently, mining activity is much more extensive in this section of the study area. Highway construction through this area would have the greatest potential for impact to coal reserves. The geotechnical concerns include the potential for mine related subsidence, settlement, and slope stability of thick (greater than 100± feet) unconsolidated surface mine spoil and the potential for acid mine drainage. No active deep or surface mine operations are known to exist in the study area. Acid mine drainage seeps have been observed in the northern portion of the study area. If a stand-alone project is identified within the study area, detailed geologic data and further analysis will be required to determine the location of potential acid mine drainage.

In addition to coal mining, the Redstone, Wymps Gap, Loyalhanna and Fishpot limestones have been quarried in the study area. However, there are no known active limestone quarries in the study area. Sandstone has also been quarried near the study area for use as building stone or crushed for aggregate. A small sandstone quarry was observed during the field reconnaissance on Meadow Mountain within a private residential community, the Highlands. It appears that the sandstone is used on a local basis only.



- Waste Sites*
- NHD Streams
- Urban Area
- Reported Deep Mined Areas
- Apparent Areas Disturbed By Surface Mining
- Deep Mine Permit Boundaries
- Surface Mine Permit Boundaries



*Note: Waste site numbers - see Table 4-14.
2004 Data Depicted on Map

Figure 4-5
Geology and Mine Permit Boundaries
US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



2. Cultural Resources

Cultural resources include historical and archaeological resources. The term "historic resource" refers to any aboveground building, structure, district, or object that relates to our cultural past. The term "archaeological resource" refers to the material evidence of past human activities that can be used to reconstruct the lives and cultures of past peoples. This might include sites, artifacts, environmental and other relevant information, and the contexts in which they occur.

Cultural resource studies initially took place between 2002 and 2007. An update of historic structures in the Pennsylvania portion of the study area was completed in March 2014 to include an assessment of properties that were built between 1954 and 1964; however, no formal report has been submitted at this time. Additionally, previously identified historic properties were examined to determine whether there have been any significant changes since the initial evaluation that would affect eligibility. A predictive model was developed in 2003 to estimate the probability of archaeological potential throughout the study area and will be used in the alignment screening in Chapter 6.

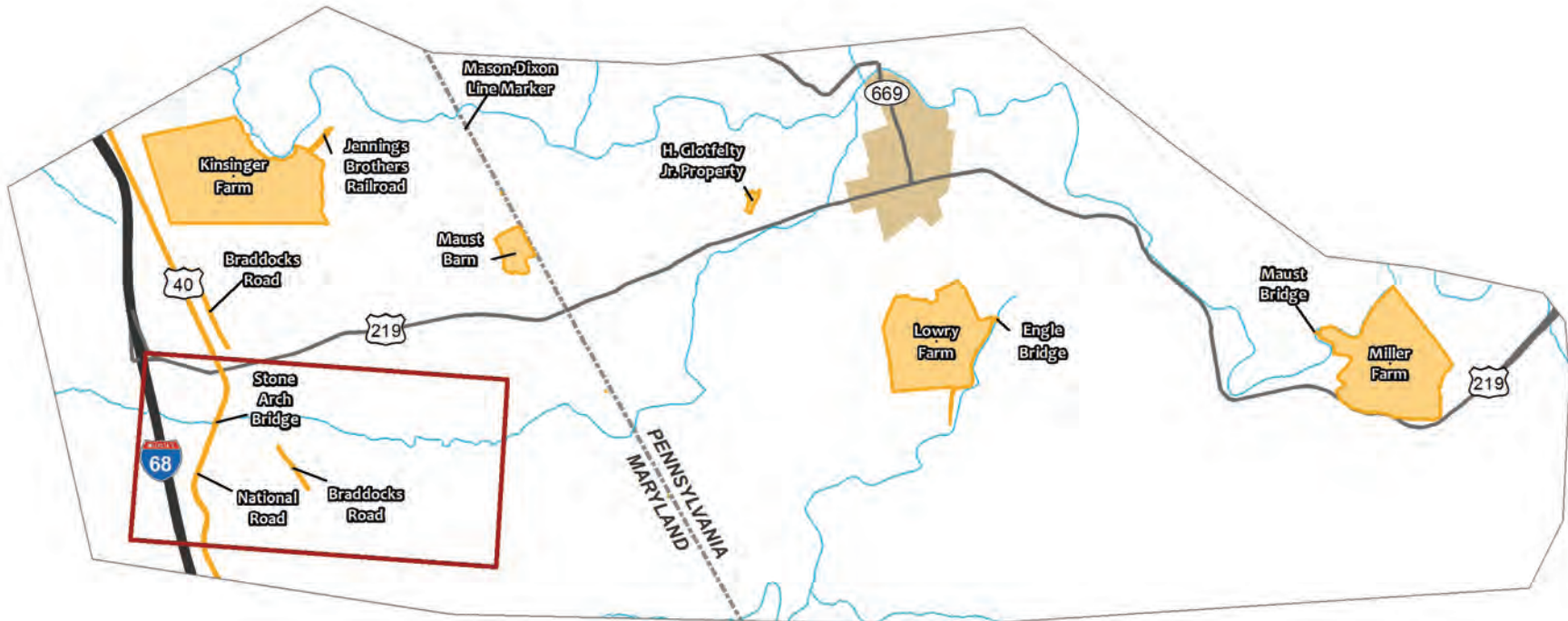
a. Historic Architecture

The historic structures surveys completed between 2003 and 2007 documented 173 potential resources (structures, sites, and objects) in the study area. The survey included a review of previous surveys, historical background research, field survey, and extensive public involvement. Abbreviated Pennsylvania Historic Site Survey forms were completed for Pennsylvania properties that clearly lacked the level of significance and integrity required for National Register of Historic Properties (NRHP) eligibility. In Maryland, Determination of Eligibility (DOE) short forms are anticipated for most of the potential resources.

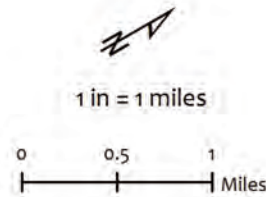
All farmsteads and other properties that might meet the NRHP eligibility criteria were advanced to more detailed assessment, involving additional field and archival documentation, preparation of standard Pennsylvania Historic Site Survey forms, and application of the NRHP criteria for evaluation. The report also included a detailed historic context to assist in the evaluation of individual properties. The following properties are listed or determined to be eligible for the NRHP and are depicted on **Figure 4-6, Historic Resources** and summarized in **Table 4-6, Existing and Recommended Historic Properties within the Study Area**.

b. Archaeology

An archaeological reconnaissance for both prehistoric and historic sites was prepared to define zones of archaeological sensitivity to guide development of preliminary alignments to avoid the most sensitive areas. Following the reconnaissance survey, a predictive model for archaeological resources within the study area was prepared using



- Potentially Eligible Resources
- Tomlinson Inn and Little Meadows (Stone House) National Register Historic Site
- Urban Area



**Figure 4-6
Historic Resources**

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland

Table 4-6 Existing and Recommended Historic Properties within the Study Area		
Historic Name	Survey Code	National Register Recommendation
Engle Bridge*	BMS 55720603253024	Eligible
Lowry Farm	111-EL-441, 443-444	Criterion A: Agriculture, Rural Industry c. 1850-1950 Criterion C: Federal Architecture c. 1850
Maust Bridge*	HAER 1 BMS 55720603513021	Eligible
Miller Farm	111-SU-423-427	Criterion A: Agriculture, Rural Industry c. 1880-1930 Criterion C: Progressive Barn Architecture 1883 c. 1930 Modern Industry Vernacular 1912
H. Glotfelty Jr. Property	111-EL-450-451	Criterion C: Log Architecture Log Barn Architecture c. 1850
Jenning Brothers Railroad (Maryland portion only)	G-I-A-225	Criterion A: Twentieth Century Transportation c. 1900-1950
National Road	G-I-A-227	Criterion A: Transportation Migration and Settlement c. 1851-1838
Braddock's Road	G-I-A-224	Criterion A: Exploration and Settlement 1755- c. 1820's Criterion B: Association with General Braddock and George Washington Criterion C: Braddock's Campaign 1755
Tomlinson Inn and the Little Meadows (Stone House)*	G-I-A-012	National Register Listed
Kinsinger Farm	G-I-A-122	Criterion A: Agriculture, Development of farmsteads along National Road c. 1850- 1950 Criterion C: Italianate Architecture c. 1897
Truman Maust Barn	G-I-A-116	Criterion C: Progressive Barn Architecture c. 1898
Mason-Dixon Line Markers	G-I-A-188 G-I-A-189 G-I-A-190 G-I-A-191 G-I-A-192	Criterion A: Mason-Dixon Line Survey 1765, Resurvey 1902
Stone Arch Bridge*	G-I-A-198	National Register Listed



GIS. A number of environmental and cultural variables were defined and mapped within GIS, with the purpose of predicting likely locations for prehistoric and historic archaeological sites. The results of the predictive model, contained in the former NEPA efforts Technical File in a report by Coppock et al. (2003), will be used in the alignment screening in **Chapter 6**.

3. Socioeconomic Resources

This section overviews the demographic features (population, housing, race, income, etc.) of the study area along with the economic development potential and community resources in the study area. Information is provided on existing land use and zoning in the study area, air quality, noise, and hazardous waste potential. See **Figure 4-7, Socioeconomic Resources**, for resources within the study area.

a. Population, Housing, & Demographics (Environmental Justice)

Data from the 2000 and 2010 decennial US Census was collected to analyze the demographic characteristics of the study area, including population, race, age and income. Data for both Garrett (Maryland) and Somerset (Pennsylvania) counties was gathered at the block group level and county level. **Figure 4-8, Study Area Block Groups**, illustrates the location of the block groups within each county. A Disproportionate Effects Test was completed to examine the study area block groups in comparison to each county. The results of this analysis were used to determine if the study may potentially have a disproportionate high and adverse effect on environmental justice populations.

US Census Data (2010) for each block group within the study area and for Garrett (Maryland) and Somerset (Pennsylvania) counties indicates the study area is primarily Caucasian (99.2 percent) and contains a slightly higher Caucasian population than either Garrett (Maryland) or Somerset (Pennsylvania) counties. Conversely, none of the study area's minority population percentages exceeds the Garrett (Maryland) and Somerset (Pennsylvania) counties levels. Therefore, the results of the Disproportionate Effects Test indicate the study area does not contain a disproportionate level of minority populations.

Similarly, the study area does not contain a disproportionately high population of elderly when compared to the county levels. **Table 4-7, Study Area Data by Age, Income & Household Size**, compares the percentage of the population over the age of 65 years for the study area and both counties. The study area contains an elderly population of 17.7 percent, which is below Somerset County's, Pennsylvania, percentage, although slightly above Garrett County's (Maryland) percentage. Half of the block groups within the study area do contain slightly elevated percentages; however, the only known concentrated elderly populations in the study area are retirement/elderly care homes located in Salisbury Borough, Pennsylvania.



An analysis was completed to determine if the study area population contains a disproportionate number of households below the federal guidelines for poverty status. The evaluation was completed using block group data from the 2000 and 2010 US Census. The Somerset County [Pennsylvania] Planning Commission, Redevelopment Authority of Somerset County (RASC), Pennsylvania, and the Garrett County [Maryland] Planning Department were also contacted to obtain any available information on poverty levels in the study area beyond that obtained from the census. Neither county could offer any specific information beyond the census data.

Table 4-7, Study Area Data by Age, Income & Household Size information was compared to the HHS poverty guidelines for 2014. The average household size in the study area is approximately three people. The median household income ranges from \$34,688 to \$54,167. The HHS poverty income for a three-person family in 2014 was \$19,790. All block groups within the study area contain a median household income well above the HHS poverty guidelines. **Table 4-7, Study Area Data by Age, Income & Household Size** also shows the study area's average household income is roughly equivalent to the counties' levels. Therefore, the study area population would not be considered a poverty or low-income population, even though as discussed in Chapter 3 there are still economic concerns in the study area counties, such as unemployment higher than and per capita incomes lower than the statewide averages.

Table 4-7 Study Area Data by Age & Income								
	Total Population		Over 65 Years of Age (%)		Median Household Income (\$)*		Average Household Size	
	2000	2010	2000	2010	2000	2010	2000	2010
Garrett County, MD	29,846	30,097	14.9	17.4	32,238	45,354	3.00	2.45
Census Tract 2								
Block Group 1	1,879	1,950	19.4	21.7	30,313	49,183	2.52	2.43
Block Group 2	1,998	1,987	11.1	14.4	28,276	50,987	2.77	2.65
Census Tract 3								
Block Group 1	1,236	1,355	12.3	12.2	34,250	45,250	2.77	2.65
Block Group 2	1,449	1,502	10.8	14.4	46,429	47,583	2.82	2.66
Somerset County, PA	80,023	77,742	18	18.6	30,911	42,424	2.45	2.35
Census Tract 215								
Block Group 1	1,136	1,122	18.5	26.4	32,011	54,167	2.55	2.42
Census Tract 217								
Block Group 1	1,101	1,061	14.9	12.6	30,268	35,083	2.98	2.96
Block Group 2	1,067	905	21.4	22.2	27,250	34,688	2.48	2.22
Block Group 3	1,003	1,002	17.9	17.6	31,094	48,990	2.77	2.96
Study Area Total	10,869	10,884	15.4	17.7	32,486	43,823	2.71	2.62

*Note: Average Household Income based on 2010 income data



Planning & Environmental Linkages

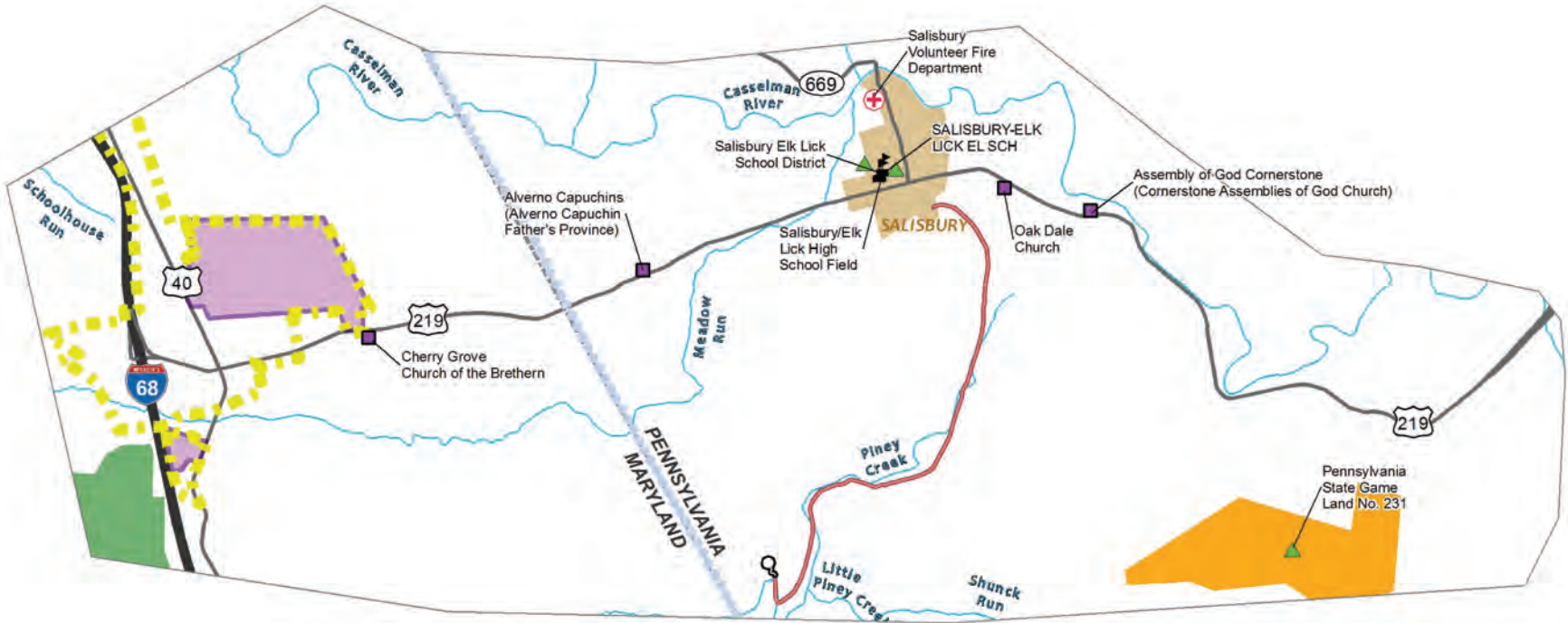


Figure 4-7
Socioeconomic Resources
 US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland

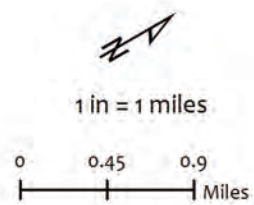
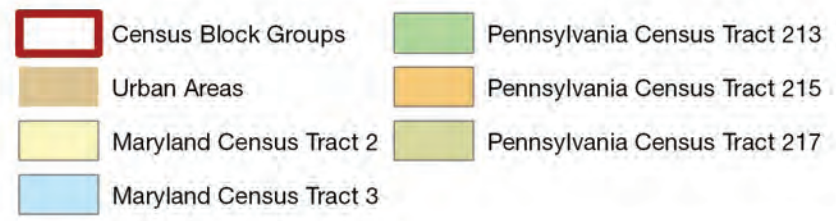
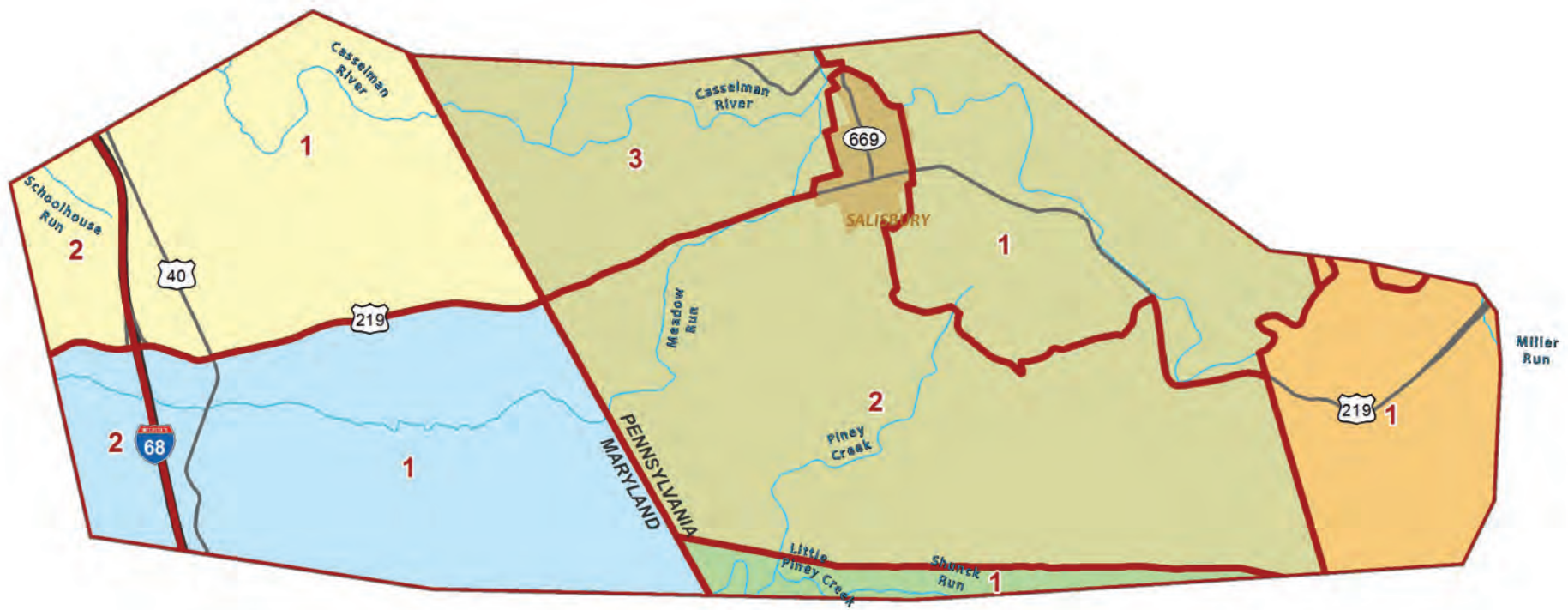


Figure 4-8
Study Area Block Groups
 US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland



Table 4-8 Percent of Study Area Linguistically Isolated (2000 Census Data)									
	English	Spanish		Other Indo-European Languages***		Asian & Pacific Island Languages		Other Languages	
	Total*	Total*	Isolated**	Total*	Isolated**	Total*	Isolated**	Total*	Isolated**
Garrett County, MD	94.9	1.1		3.8	7.2	0.2	40.0	0.2	0.0
Census Tract 2									
Block Group 1	90.8	0.7	0.0	8.5	20.3	0.0	0.0	0.0	0.0
Block Group 2	91.4	1.8	0.0	6.8	0.0	0.0	0.0	0.0	0.0
Census Tract 3									
Block Group 1	96.5	2.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0
Block Group 2	95.2	1.4	0.0	3.5	0.0	0.0	0.0	0.0	0.0
Somerset County, PA	94.6	1.4	4.4	3.5	12.1	0.2	36.5	0.2	21.3
Census Tract 215									
Block Group 1	99.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
Census Tract 217									
Block Group 1	82.8	3.8	0.0	13.4	34.7	0.0	0.0	0.0	0.0
Block Group 2	95.0	1.2	0.0	3.8	0.0	0.0	0.0	0.0	0.0
Block Group 3	80.1	0.0	0.0	19.4	32.4	0.5	0.0	0.0	0.0
Study Area Total/Avg.	91.8	1.3	0	6.8	19	0.1	0	0.0	0

*Note: Total is based on number of households

**Note: A linguistically isolated household is one in which all members 14 years old and over (1) do not speak English or (2) speak a non-English language and do not speak English

***Note: Other Indo-European languages include: Albanian, Gaelic, Lithuanian, German, Pennsylvania Dutch and Romanian languages



The term “linguistically isolated” was replaced with the “no one age 14 and over speaks English or speaks English ‘very well’ in the 2010 Census. **Table 4-9, Percent of Study Area With LEP**, provides the five language categories spoken in the study area. The total percentage of the households that speak each language, as well as the percent considered to have LEP, is also shown.

Table 4-9 Percent of Study Area with Limited English Proficiency (2010 Census Data)									
	English	Spanish		Other Indo-European Languages***		Asian & Pacific Island Languages		Other Languages	
	Total*	Total*	LEP**	Total*	LEP**	Total*	LEP**	Total*	LEP**
Garrett County, MD	94.6	1.1	3.7	3.8	10.8	0.5	0.0	0.2	0.0
Census Tract 2	93.7		0.0	5.3	43.0	0.0	0.0	0.0	0.0
Block Group 1	90.2	0.7		9.4		0.0		0.0	
Block Group 2	96.4	1.8		1.3		0.0		0.0	
Census Tract 3	96.1		0.0	2.2	0.0	0.0	0.0	0.0	0.0
Block Group 1	96.8	2.0		1.9		0.0		0.0	
Block Group 2	95.6	1.4		2.5		0.0		0.0	
Somerset County, PA	95.5	1.4	1.2	2.8	17.2	0.4	18.8	0.2	0.0
Census Tract 215	93.9		0.0	5.5	21.6	0.0	0.0	0.0	0.0
Block Group 1	97.5	0.0		2.5		0.0		0.0	
Census Tract 217	84.6		100.0	15.0	33.5	0.0	0.0	0.0	0.0
Block Group 1	78.7	3.8		20.3		0.0		0.0	
Block Group 2	100.0	1.2		0.0		0.0		0.0	
Block Group 3	74.1	0.0		25.9		0.0		0.0	
Study Area Total/Avg.	91.2	1.3		8.0		0.0	0	0.0	0.0

*Note: Total is based on number of households

**Note: LEP data available in 2010 Census data at the Census Tract level only and not the Block Group level.

***Note: Other Indo-European languages include: Albanian, Gaelic, Lithuanian, German, Pennsylvania Dutch and Romanian languages



According to the census data, roughly 91.2 percent of the study area's households speak English, in comparison to 94.6 and 95.5 percent in Garrett (Maryland) and Somerset (Pennsylvania) counties, respectively. Spanish (0.9 percent) is spoken in the study area; however, there are no linguistically isolated households with these languages.

A small portion of the study area (8.0 percent) speaks other Indo-European languages, which the US Census categorizes as Albanian, Gaelic, Lithuanian, German, Pennsylvania Dutch and Rumanian languages. Of these households, approximately 25 percent have limited English proficiency. This percentage exceeds both the Garrett County, Maryland level of 10.8 percent and the Somerset County, Pennsylvania, level of 17.2 percent. Census Tract 2 in Garrett County, Maryland and Census Tract 217 in Somerset County, Pennsylvania contain a sizeable percentage of limited English proficiency households. Coordination with local officials and planning agencies has indicated the overwhelming majority of these non-English speaking people are Amish who speak German or Pennsylvania Dutch. A meeting with Bishop Bennie A. Yoder of the Amish Community in West Salisbury was held on September 10, 2002. Two Amish Communities exist in the study vicinity - one in West Salisbury and the other in Pocahontas. According to Bishop Yoder, the Amish occasionally travel between the two towns. From west Salisbury they would travel east through Salisbury, crossing US 219 in town. Just out of Salisbury, they would pick up Greenville Road, which would take them directly to Pocahontas. The length of the trip is approximately nine miles. According to Bishop Yoder, all of the members of both communities speak and read the English language, as state laws mandate Amish schools teach the English language. At home, the Amish speak Pennsylvania Dutch; church services are conducted in High German.

b. Economy and Development Potential

The current economic conditions and employment situation in the study area and Appalachian Region was analyzed using data from the 2000 US Census and 2010 US Census. Information gathered by Appalachian Regional Commission (ARC) for the Appalachian Region was also used to establish a baseline for evaluating the economy of the study area. Data on the county economic status, income, poverty, unemployment, and employment industries was gathered at the national, state, county, and county subdivision level. Data for the entire Appalachian Region, Appalachian Maryland, and Appalachian Pennsylvania was also gathered as available from ARC.

ARC determined the economic status of the counties in the Appalachian Region for the fiscal years 2014 and 2015. The purpose of this evaluation was to determine which counties were in greater need for ARC funding. ARC classifies counties according to four criteria: distressed, transitional, competitive, and attainment. Both Garrett (Maryland) and Somerset (Pennsylvania) counties are rated as transitional counties by ARC. See **Table 4-10 County Economic Status, Fiscal Year 2014** and **Table 4-11, County Economic Status, Fiscal Year 2015**. Transitional counties are classified as



those that are below the national average for one or more of the three economic indicators (three-year average unemployment, per capita market income, and poverty), but do not satisfy the criteria of the distressed category.

**Table 4-10
County Economic Status, Fiscal Year 2014**

Location	County Economic Status FY 2014	Three-Year Average Unemployment Rate 2009-2011 (%)	Per Capita Market Income (PCMI) 2010 (\$)	Poverty Rate Year 2007-2011 (%)
Garrett County, Maryland	Transitional	8.1	27804	12.7
Somerset County, Pennsylvania	Transitional	8.8	21537	12.8
Appalachian Maryland		9.6	26358	12.4
Appalachian Pennsylvania		8.2	27497	13
Appalachia		9.4	24425	16.1
Maryland		7.4	42341	9
Pennsylvania		8.1	31982	12.6
United States		9.3	32562	14.3

**Table 4-11
County Economic Status, Fiscal Year 2015**

Location	County Economic Status FY 2015	Three-Year Average Unemployment Rate 2010-2012 (%)	Per Capita Market Income (PCMI) 2010 (\$)	Poverty Rate Year 2008-2012 (%)
Garrett County, Maryland	Transitional	7.9	31,830	13
Somerset County, Pennsylvania	Transitional	8.8	25,144	13.1
Appalachian Maryland		9.2	28,775	13.2
Appalachian Pennsylvania		8.1	31,930	13.4
Appalachia		8.9	27,359	16.6
Maryland		7.3	46,930	9.4
Pennsylvania		8.1	36,336	13.1
United States		8.9	36,223	14.9



Garrett County's, Maryland, and Somerset County's, Pennsylvania, three-year average unemployment rates for 2009 to 2011 and 2010 to 2012 are both less than that of the US average. Garrett County, Maryland, has a per capita market income of approximately 88 percent of the US average, which has grown from a low of approximately 65 percent in the 1990's and early 2000 timeframe. Somerset County, Pennsylvania, has a per capita market income only slightly higher in that same timeframe (approximately 65 to 69 percent of the US average, respectively).

Unemployment rates from 2009 to 2012 have decreased slightly in Garrett County, Maryland and remained relatively unchanged in Somerset County, Pennsylvania. Garrett County's (Maryland) unemployment rates are lower than the average rates for the Appalachian Region and the US, but remain slightly higher than the Maryland statewide unemployment rates (7.9 to 7.3, respectively). Somerset County's, Pennsylvania, unemployment rates remain lower than the US and Appalachian region rates; however, they remain higher than the Pennsylvania and Appalachian Pennsylvania regional rates. However, Tables 4-10 and 4-11 suggest that the economic situation may be improving as per capita income increased from 2000 to 2010 and poverty rates significantly decreased.

While a majority of the population in the study area is employed in the education, health, and social services sectors, manufacturing and construction is still a mainstay of the study area economy. See **Table 4-12, Employment Industries, 2010**.

c. Community Facilities / Services

Services and facilities listed are located within the study area as shown on **Figure 4-7**.

Public Water Supply and Wastewater Facilities¹⁸

- The Salisbury Borough public water supply, under the authority of the Salisbury Commission of Water Works, is Findley Spring. Findley Spring is located on Meadow Mountain southeast of Salisbury. The transmission line extends northwest from the springhead to the northeastern corner of Salisbury where it empties into the Borough's underground reservoir and 70,000 gallon storage tank.
- The Salisbury Borough wastewater system currently services properties within the borough only.

Emergency Service Provider

- Salisbury Volunteer Fire Department in Salisbury, Pennsylvania

¹⁸ Note this section only discusses resources within the study area. Grantsville, Maryland is located outside of the study area to the west and has many of the same facilities.



**Table 4-12
Employment Industries, 2010 (in %)**

Location	Agriculture, Forestry, Fishing, Hunting & Mining	Construction	Manufacturing	Wholesale Trade	Retail Trade	Transportation & Warehousing, & Utilities	Information	Finance, Insurance, Real Estate & Rental & Leasing	Professional, Scientific, Management,	Education, Health & Social Services	Arts, Entertainment, Recreation,	Public Administration	Other
Garrett County, Maryland	5.4	11.4	7.8	2.6	10.5	6.8	1.2	5.2	8.0	19.6	10.0	6.0	5.7
Census Tract 2	9.0	18.5	7.6	1.7	7.6	7.4	1.0	6.9	6.5	17.3	5.9	4.4	6.3
Census Tract 3	0.5	5.2	8.6	2.9	9.9	13.5	1.5	7.4	9.2	18.5	13.4	5.9	3.4
Somerset County, Pennsylvania	5.3	8.2	13.7	2.4	12.2	6.7	1.2	3.6	5.9	21.9	9.0	5.2	4.7
Census Tract 215	7.1	9.3	16.1	0.8	11.7	4.4	1.0	3.9	3.3	28.1	7.0	4.6	2.2
Census Tract 217	14.2	11.9	11.3	1.3	13.6	5.7	0.9	1.7	4.4	20.9	6.6	1.5	6.0
Maryland	0.5	7.1	5.2	2.1	9.7	4.4	2.4	6.4	14.9	23.0	7.8	11.2	5.4
Pennsylvania	1.3	5.9	12.6	2.9	11.7	5.2	1.9	6.5	9.6	25.6	8.0	4.2	4.7
United States	1.9	6.5	10.6	2.8	11.6	5.0	2.2	6.7	10.7	22.9	9.2	4.9	5.0



Educational Facilities

Somerset County, Pennsylvania:

- Salisbury Elk Lick School District, located in Salisbury, Pennsylvania and serving both the Borough of Salisbury and Elk Lick Township, Pennsylvania.

Garrett County, Maryland:

- No Garrett County, Maryland, schools are located within the study area. The Maryland portion of the study area is served by Northern Garrett School District.

Recreational Facilities

- Salisbury/Elk Lick High School field is located on the west side of Smith Avenue in the Borough of Salisbury, Pennsylvania, and includes a new grandstand, restrooms, and concession stand. The field is open to the public from spring to the end of fall. Additionally, south of the school are a basketball court, large wooden play area, swings, climbing apparatus, baseball and softball fields, and tennis courts, which are also open to the public from spring until fall.
- Pennsylvania State Game Land No. 231 is located in the northeastern corner of the study area, just southeast of Hunsrick Summit, Pennsylvania.

At 54,000 acres, the Savage River State Forest (Maryland) is the largest multi-use facility in the Maryland state forest and park system and includes three state park areas (New Germany, Big Run, and Casselman River Bridge). The forest is managed and maintained by the MD DNR with Program Green Space Funding. The forest provides opportunities for hiking/biking, camping, boating, fishing, canoeing, white water rafting, snow mobile riding, and hunting. A portion of the Savage River State Forest extends into the extreme southeastern section of the study area. Within this section of the forest is the Meadow Mountain Trail, which functions as a bike, snowmobile and Off-Road Vehicle (ORV) trail. The trail currently extends for 16 miles to the south and is on average approximately 15 feet wide. The remaining sections of Savage River State Forest within the study area are designated in MD DNR's "Ten Year Resource Management Plan Savage River State Forest" (June 1992) as "General Forest Management Areas."

Religious Facilities

- The Alverno Capuchin Father's Province (a religious retreat located south of Salisbury and west of US 219)
- Cornerstone Assemblies of God Church, Boynton, Pennsylvania
- Oak Dale Church, Boynton, Pennsylvania
- Cherry Grove Church of the Brethren in Maryland
- Numerous cemeteries in Pennsylvania



d. Land Use & Zoning

Land use and land cover types in the study area were classified to Anderson Land Use Classification Level II, as discussed in **Section 1.b, Vegetation and Wildlife**. See **Figure 4-2, Anderson Land Use Map, Level II**. As stated, the majority of the study area is forested or cropland/pasture. Forestland (deciduous, evergreen, and mixed) is the predominant land use/cover in the study area. The second most predominant land use/cover is agricultural land. Scattered residential and commercial development exists throughout the study area. Concentrated development areas include the town of Boynton and Salisbury Borough in Pennsylvania, and the area surrounding the US 219/ US 40 Alternate intersection and US 219/I-68 interchange in Maryland.





The Somerset County [Pennsylvania] 2006 Comprehensive Plan includes plans to pursue an upgrade of US 219 to a four-lane, limited-access facility. Somerset County, Pennsylvania, has enacted countywide zoning and subdivision ordinances that have been adopted by several Somerset County, Pennsylvania, municipalities. Summit Township, Elk Lick Township and Salisbury Borough, Pennsylvania have each adopted the county subdivision ordinance. Garrett County, Maryland, has adopted a countywide subdivision plan and a Comprehensive Plan called a “New Development Plan for Garrett County” (NDPGC). The US 219 study area falls within the Casselman River Drainage Basin. A map displaying existing conditions of the drainage basin is shown on Figure 4-9, Existing Characteristics. The NDPGC calls for additional commercial growth on both sides of existing US 219 from I-68 northward past US 40 Alternate. The plan also suggests more residential development on the northern section of existing US 219 in Maryland. This is shown on Figure 4-10, Land Use Plan from the NDPGC. Garrett County's, Maryland, plan states that arterials such as US 219 should be limited-access facilities, based on the principal that improved access will aid in economic development.

Garrett County, Maryland, last updated their Comprehensive Plan in 2008. The Comprehensive Plan includes the goal for an upgrade to US 219 to avoid a degradation in operating condition by 2030. General improvements discussed included improvements to traffic flow, providing for safe pedestrian and bicycle movements, and separating short and long-distance traffic.




The study is partially within a Garrett County (Maryland) Priority Funding Area (PFA), as defined under the Maryland Smart Growth Priority Funding Areas Act of 1997, as shown on **Figure 4-7**. The intent of this act is to limit sprawl and direct state funds toward growth-related projects in designated PFAs. Before receiving funding for construction, any project must be evaluated by both Garrett County, Maryland, and the Maryland Department of Planning for compliance with the Smart Growth Act.



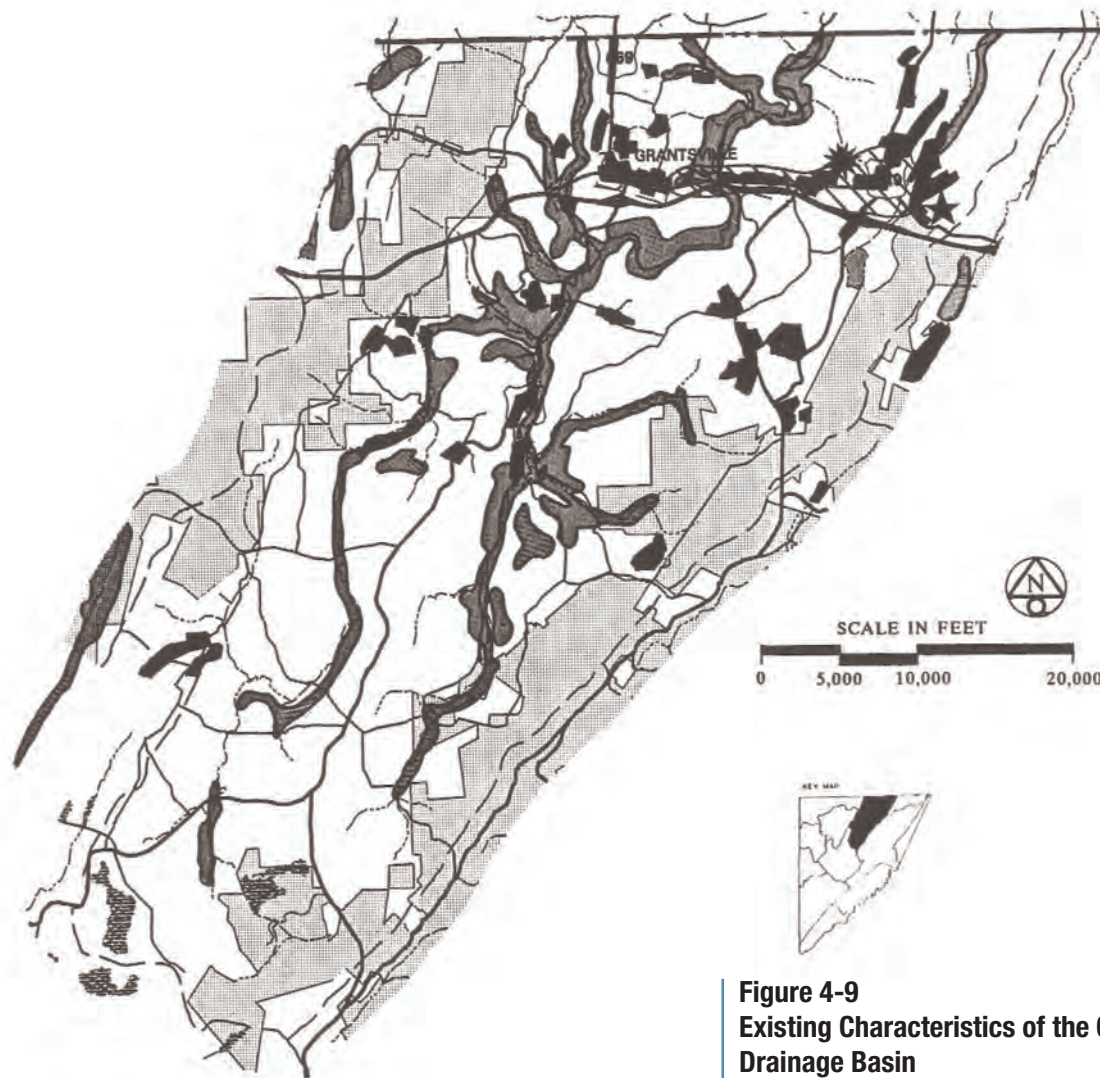
EXISTING CHARACTERISTICS

-  Publicly Owned Lands
-  Developed Land *
-  Sensitive Areas
-  Major Roads

SIGNIFICANT PAST & POTENTIAL INFLUENCES

-  Future Water & Sewer Service Area
-  Potential Industrial Park
-  Little Meadows Historic Area

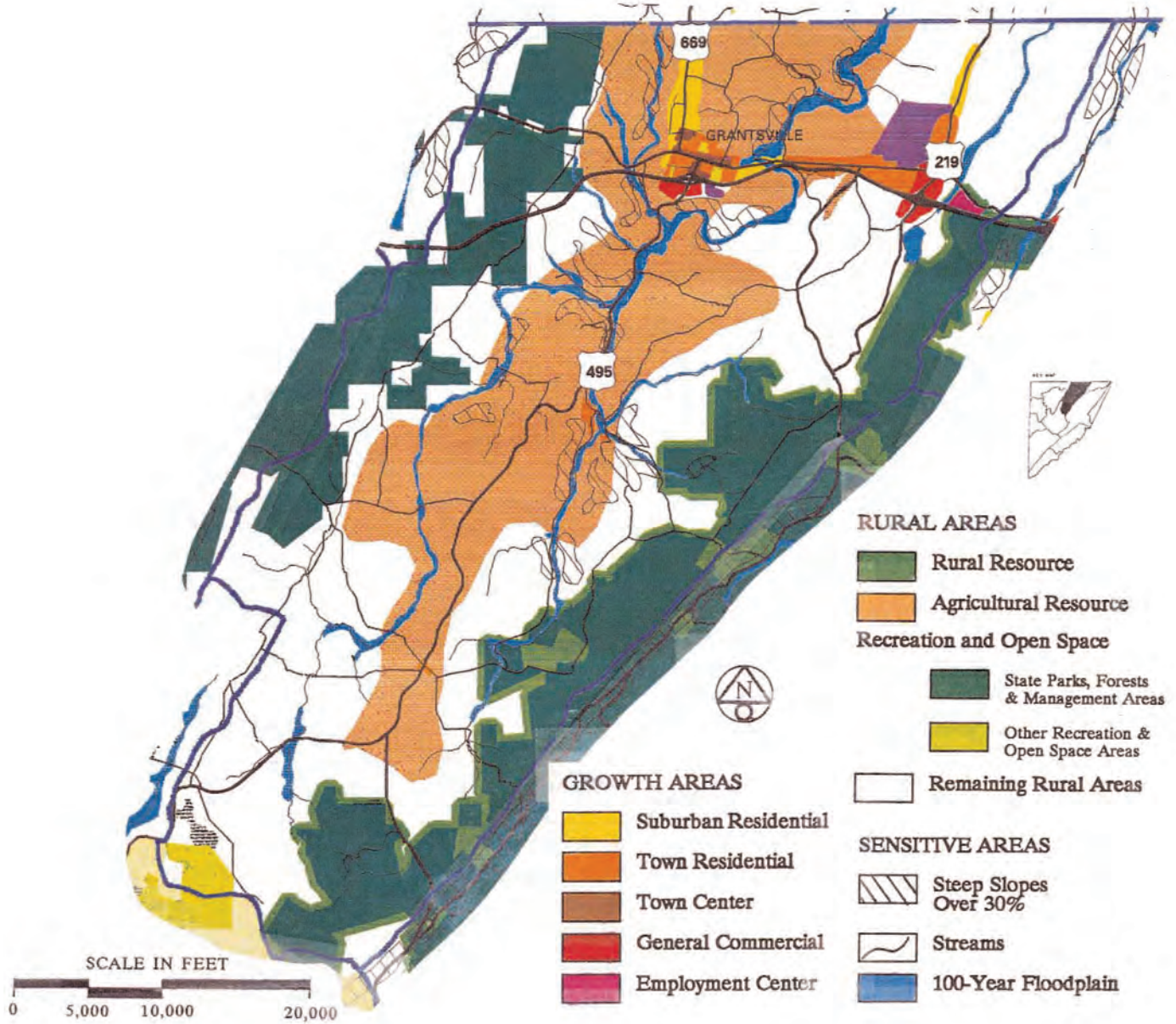
* Source: Maryland Office of Planning's 1990 Land Use Land Cover Database



Map provided by the [New Development Plan for Garrett County](#)

Figure 4-9
Existing Characteristics of the Casselman River
Drainage Basin

US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland



Map provided by the New Development Plan for Garrett County

Figure 4-10
Land Use Plan from NDPGC

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



e. Air Quality

Air quality became a national concern in the mid-1960s, leading to the passage of the Air Quality Act (1967). Following the passage of the Federal Clean Air Act Amendments of 1990 (CAAA90), states were mandated to implement additional steps to reduce airborne pollutants, and improve local and regional conditions. The US Environmental Protection Agency (EPA) is tasked with setting National Ambient Air Quality Standards (NAAQS) for wide-spread pollutants from numerous and diverse sources considered harmful to public health and the environment. Automobile emissions have been identified as a critical element in attaining the NAAQS for carbon monoxide (CO) and ozone (O₃).

Both Somerset County, Pennsylvania and Garrett County, Maryland are in attainment for all criteria pollutants including: ozone (8-hour and 1-hour); Particulate Matter (PM) 2.5 and 10, sulfur dioxide, lead, carbon monoxide, nitrogen dioxide and the multi-pollutant category. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

f. Noise

Existing noise conditions within the study area were evaluated in 2003 through both in-field monitoring and validated through computer modeling.

Noise monitoring results are summarized in the Monitored Noise Level column of **Table 4-13, Sound Level Summary**. **Figure 4-11, Noise Monitoring Sites**, shows the locations of the sites presented in **Table 4-13**. As shown, existing noise levels ranged from 42 to 69 dBA in Maryland, and 42 to 65 dBA in Pennsylvania. As expected, noise levels were greatest at those sites in close proximity to existing US 219 and US 40 Alternate. The Modeled Noise Level column of **Table 4-13** provides the modeling verification results for existing noise levels for 2003 conditions.

Once again, noise levels are greatest in close proximity to US 219 and US 40 Alternate, and at those locations with little or no shielding from existing buildings or residences.

Following the calibration of the existing conditions model, additional noise analysis was performed to represent existing worst-case noise levels throughout the corridor. The Existing (2003) Worst-Case column of **Table 4-13** provides a summary of existing, worst-case noise levels throughout the study area, based on worst-case traffic data.



Table 4-13

Sound Level Summary

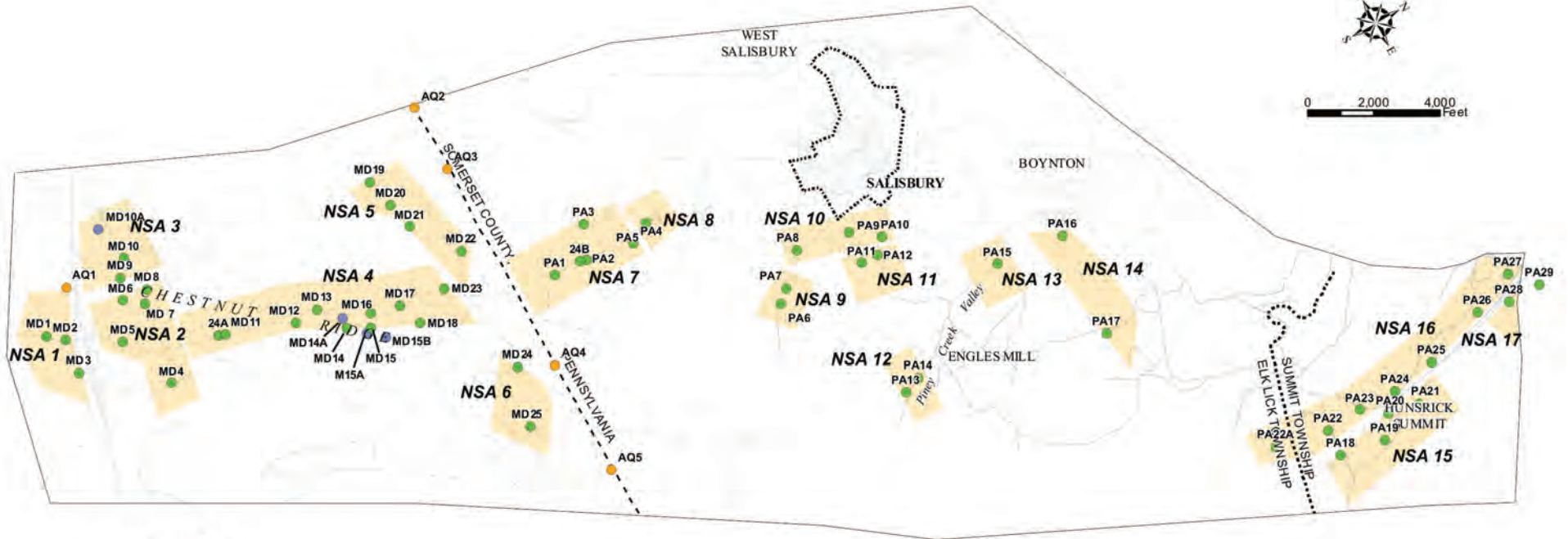
	Site Number	Site Representation	Monitored Noise Level	Modeled Noise Level	Difference (mon-mod)	Existing (2003) Worst-Case
NSA 1	MD1	2 Residences	64	63	1	63
	MD2	2 Residences	59	58	1	58
	MD3	Park	58	56	2	56
NSA 2	MD4	Historic Prop.	59	57	2	57
	MD5	3 Residences	60	60	0	60
	MD6	2 Residences	52	51	1	51
	MD7	7 Residences	65	65	0	65
NSA 3	MD8	2 Residences	62	61	1	61
	MD9	2 Residences	58	59	-1	59
	MD10	5 Residences	62	61	1	61
NSA 4	MD10A	3 Residences	--	--	--	50
	MD11	4 Residences	69	68	1	66
	MD12	4 Residences	57	56	1	53
	MD13	6 Residences	69	67	2	65
	MD14	2 Residences	46	48	-2	45
	MD14A	3 Residences	--	--	--	50
	MD15	2 Residences	46	46	0	44
	MD15A	4 Residences	--	--	--	45
	MD15B	2 Residences	--	--	--	45
	MD16	5 Residences	52	51	1	48
	MD17	3 Residences	52	52	0	50
NSA 5	MD18	1 Residence	47	--	--	47
	MD23	2 Residences	54	55	-1	53
	MD19	1 Residence	49	--	--	49
	MD20	1 Residence	53	--	--	53
NSA 6	MD21	1 Residence	45	--	--	45
	MD22	1 Residence	50	--	--	50
NSA 7	MD24	1 Residence	42	--	--	42
	MD25	1 Residence	46	--	--	46
NSA 8	PA1	3 Residences	59	58	1	57
	PA2	3 Residences	65	66	-1	65
	PA3	1 Residence	47	46	1	44
	PA4	2 Residences	61	60	1	59
NSA 9	PA5	1 Residence	60	59	1	59
	PA6	1 Residence	45	--	--	45
	PA7	1 Residence	50	--	--	50



Table 4-13

Sound Level Summary

	Site Number	Site Representation	Monitored Noise Level	Modeled Noise Level	Difference (mon-mod)	Existing (2003) Worst-Case
NSA 10	PA8	1 Residence	45	--	--	45
	PA9	3 Residences	49	--	--	49
	PA10	3 Residences	47	--	--	47
NSA 11	PA11	1 Residence	46	--	--	46
	PA12	2 Residences	47	--	--	47
NSA 12	PA13	1 Residence	54	--	--	54
	PA14	1 Residence	47	--	--	47
NSA 13	PA15	1 Residence	49	--	--	49
NSA 14	PA16	2 Residences	46	--	--	46
	PA17	1 Residence	42	--	--	42
NSA 15	PA18	1 Residence	47	--	--	47
	PA19	5 Residences	47	--	--	47
	PA20	1 Residence	50	49	1	48
	PA21	3 Residences	53	51	2	50
NSA 16	PA22	1 Residence	51	--	--	51
	PA22A	2 Residences	--	--	--	45
	PA23	2 Residences	64	63	1	62
	PA24	1 Residence	51	49	2	48
	PA25	1 Residence	52	53	-1	52
	PA26	2 Residences	55	55	0	50
	PA27	3 Residences	55	53	2	48
NSA 17	PA28	3 Residences	55	56	-1	51
	PA29	3 Residences	55	53	2	48



Legend

- Noise and Air Quality Sites
- Air Quality Sites (only)
- Noise Modeling Sites (only)
- Noise Sensitive Areas

Figure 4-11

Noise Monitoring Sites

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



g. Hazardous/Residual Waste Sites

Hazardous and residual waste sites were evaluated for the study area in 2003. The Phase I investigation was a standard, non-invasive records search and on-site survey to determine the characteristics of a real estate parcel within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Superfund Amendments Reauthorized Act (SARA), 42 USC 9601 (35)(B). The objective of the investigation was to identify the location of any current or previous sites that stored, generated, treated, or disposed of hazardous or non-hazardous materials located within the study area.

A field reconnaissance was conducted in 2002-2003 to confirm the location of potential waste sites identified in various state and federal government databases. During the field reconnaissance, potential waste sites that were not recorded in the state and federal government databases were identified. Interviews of property owners/property managers and government officials were conducted when possible. The interviews aided in determining the environmental conditions of the sites investigated. As part of the PEL process, a visual field inspection of the study area was conducted and aerial mapping was used to identify any new potential hazardous waste sites. The Pilot Truck Stop near Route 40 in Maryland has been identified as the only new potential hazardous waste site. No other new sites were identified and it appears that all previously identified sites are still present. Based on the previous NEPA analysis, it is unlikely that impacts to waste sites would have any influence on alignment selection; therefore, the analysis was not used as a decisional point in the environmental screening.

Twenty-six potential waste sites were identified within the study area, as shown on **Table 4-14, Phase I ESA Results**. These locations can be found on **Figure 4-5**. Of the 26 sites, 20 were identified as containing underground or above ground storage tanks. One site is a conditionally-exempt, small quality generator of hazardous waste and three are unpermitted waste dumping sites. One site is a natural gas gate and metering facility, and the others are surface mine sites.

**Table 4-14
Phase I ESA Results**

Site number (See Figure 4-6)	Description	Site in Maryland (MD) or Pennsylvania (PA)?	Phase II or III Recommended?
Site 7	Automotive repair shop	PA	Yes
Site 8	Trailer manufacturing facility	PA	Yes
Site 9	Manufacturer	PA	Yes
Site 10	Foundry and machine shop	PA	Yes
Site 11	Gasoline station	PA	Yes
Site 12	Trucking company	PA	Yes
Site 13	Natural gas metering/gate facility	PA	Yes
Site 14	Auto body shop	MD	Yes
Site 15	Trucking company	MD	Yes
Site 16	Municipal road department	MD	Yes
Site 17	Gasoline station	MD	Yes
Site 18	Trucking repair facility	MD	Yes
Site 19	Welding shop	MD	No
Site 20	Gasoline station	MD	Yes
Site 21	Gasoline station	MD	Yes
Site 22	Agricultural property	MD	Yes
Site 23	Truck repair shop	MD	Yes
Site 26	Gasoline/diesel bulk plant	MD	Yes
Site 27	Mine waste site	PA	No
Site 28	Mine waste site	PA	Yes
Site 29	Mine waste site	PA	Yes
Site 30	Recycling of household wastes	MD	No
Site 31	Waste dump site	PA	No
Site 32	Abandoned garment factory	PA	Yes
Site 33	Abandoned strip mine	MD	Yes
Site 34	Truck repair facility	MD	Yes



Chapter 5 – Possible Solutions

1. Development of Possible Solutions

The solutions screened as part of this PEL study began with revisiting alignments and other traditional solutions such as upgrades to existing US 219 and a TSM Alignment that were developed during the former NEPA efforts. The PEL solutions include prior agency and public suggestions, as well as an additional alignment (Westerly Alignment). Fourteen alignments were studied during the former NEPA study. These solutions include an Upgrade Alignment, a Transportation System Management (TSM) and Alignments A, B, C, D, E, E-Shift, AE, USACOE1, USACOE2, USFWS, Agency, and Ridge. The agency and public solutions were included within these 14 original alignments. With the addition of a Westerly Alignment, this PEL also includes a no-build option, bringing the total to 16 possible alignments.

During the former NEPA efforts, solutions/alignments were developed through a fatal flaw analysis that considered, based on readily available environmental, demographic, cultural, and economic information that was available from county planning departments, whether any areas existed where no alignment should be placed. This fatal flaw analysis identified the area to the west of the Casselman River as an area to be avoided due to existing known environmental resources, including threatened and endangered species and known archaeology sites. In addition, the environmental resource agencies had requested that crossings of the Casselman River be avoided and that solutions/alignments be kept as far from the river as possible due to sensitive aquatic species (see Maryland Department of Natural Resources letters dated June 25, July 24, and December 2 of 2002 in **Appendix A**). For these reasons, this PEL study also does not consider any alignments that cross the Casselman River or that are located west of the Casselman River.

2. Possible Solutions

Figure 5-1 depicts all the possible solutions under consideration as part of this PEL study. The TSM is not a specific alignment, as it involves upgrading existing US 219, and is not shown on the figure. Also, note that an interchange layout at I-68 (Maryland) is not shown for the Westerly Alignment; this is because no interchange was conceptually developed for that alignment as it was screened out of the process. Included in each individual alignment discussion is information on why the alignment was originally suggested.

a. Upgrade Existing US 219 Alignment

Analysis of an Upgrade Alignment was considered because improvements to existing US 219 would be anticipated to be the least expensive and least impactful to the natural environment. The Upgrade Alignment consists of a four-lane limited access

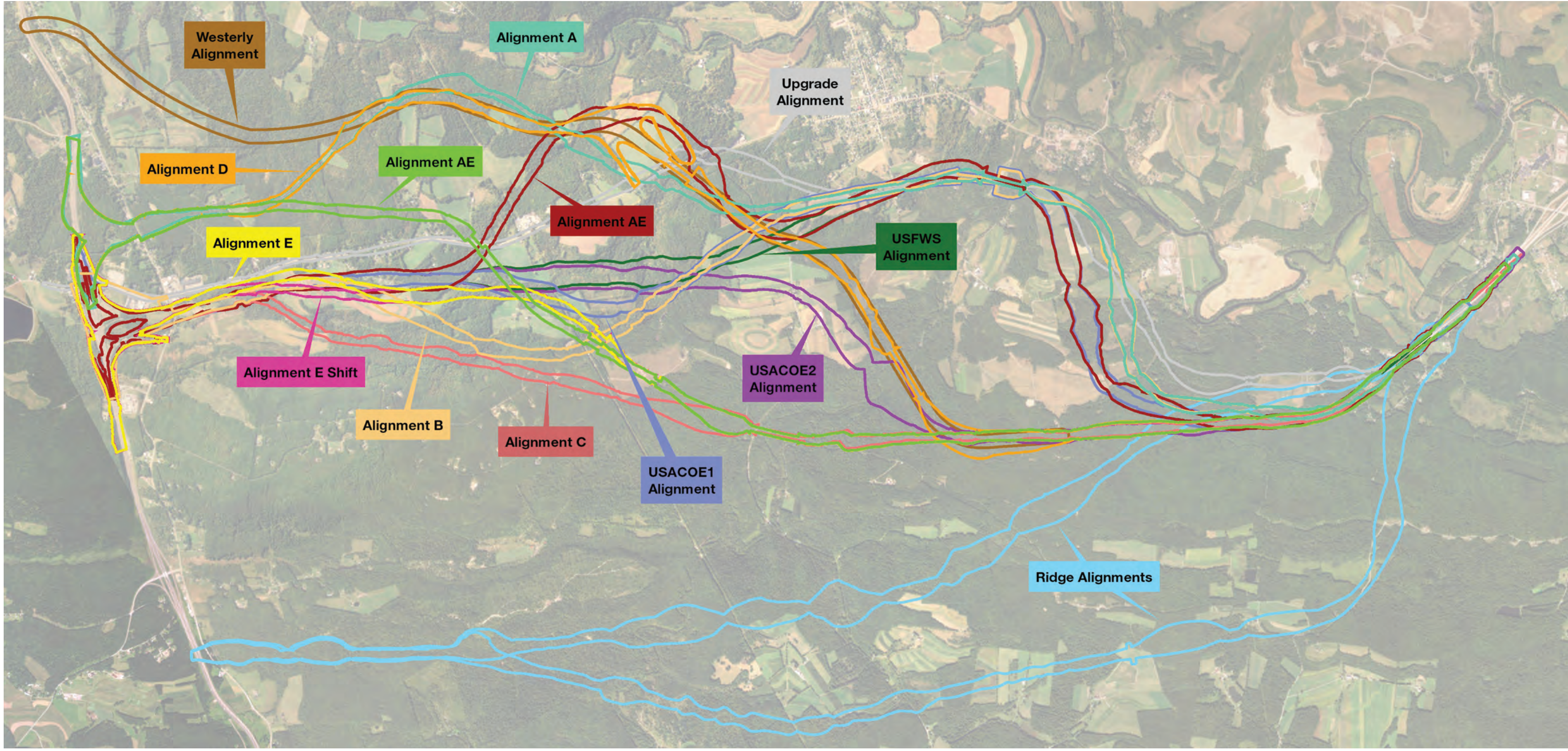


Figure 5-1
Alignments Under Consideration
 US 219
 Summit and Elk Lick Townships
 Somerset County, Pennsylvania and Garrett County, Maryland



facility (as opposed to a two-lane on alignment upgrade), because a four-lane limited access facility currently exists at either end of the study area terminus.

The Upgrade Alignment is not a true upgrade of the entire existing facility, as the first four miles of this alignment are shifted to the east of existing US 219. A true upgrade of the existing alignment would require extensive earthwork and would almost completely displace, both, Boynton and Salisbury, Pennsylvania. Therefore, from the end of the Meyersdale Bypass (Pennsylvania) south to just south of Salisbury, Pennsylvania, the Upgrade is on new alignment. From just south of Salisbury (Pennsylvania) to I-68 (Maryland), the Upgrade follows and improves the existing US 219. The interchange with I-68 in Maryland would be at the existing US 219/I-68 interchange.

b. Transportation System Management (TSM) Alignment

TSM techniques aim at improving transportation facilities without major construction investment; therefore, it was proposed as a low cost option that would be less impactful than offline alignments. Techniques include high occupancy vehicle lanes, improved public transportation, ride sharing, and park-and-ride lots. TSMs predominantly improve transportation corridors by better utilizing the existing capacity by moving more people with fewer vehicles. Capacity is not a concern with this section of US 219; the inadequate levels of service result from a high truck percentage and the existing grades and terrain of the roadway.

c. Alignment A

Suggested by the former NEPA efforts team to avoid the mountain slope / ridge and stay closer to US 219 in an attempt to reduce natural resource impacts. It also was suggested to avoid the Little Meadows in Maryland. As with all alignments under study, Alignment A starts at the southern end of the Meyersdale Bypass proceeding in a southerly direction to just north of the Mast farm, where it heads westward toward existing US 219. The alignment then turns in a southerly direction, just east of existing US 219 and crosses Piney Run near Engle Bridge. Alignment A continues southward across existing US 219 just south of Salisbury, Pennsylvania. The alignment then continues in a southwesterly direction toward the Casselman River, crossing the Mason-Dixon line approximately one mile west of existing US 219. Alignment A then heads southward to an interchange with I-68 just west of the existing US 219 interchange.

d. Alignment B

Suggested by the former NEPA efforts team to avoid the mountain slope / ridge and stay closer to US 219 and further from the Casselman River than Alignment A in an attempt to reduce natural resource impacts. Alignment B starts at the southern end of the Meyersdale Bypass and generally follows Alignment A to a point just south of Greenville Road. At this point, Alignment A heads westward across existing US 219



and Alignment B continues in a southerly direction toward the Mason-Dixon Line. Alignment B crosses the Mason-Dixon line, approximately 3,000 feet east of existing US 219. Alignment B then heads southward to an interchange with I-68 just east of the existing US 219 interchange.

e. Alignment C

Suggested by the former NEPA efforts team to avoid all farmland in Pennsylvania and most farmland in Maryland. Alignment C starts at the southern end of the Meyersdale Bypass and proceeds in a southerly direction along the face of Meadow Mountain. Alignment C crosses the Mason-Dixon line approximately one mile east of existing US 219. Alignment C then heads southward to an interchange with I-68 just east of the existing US 219 interchange.

f. Alignment D

Suggested by the study area farmers during the former NEPA efforts to avoid the mountain slope / ridge and stay closer to US 219 in an attempt to reduce natural resource impacts. It also was suggested to avoid the Little Meadows in Maryland. Alignment D starts at the southern end of the Meyersdale Bypass proceeding in a southerly direction to just south of the Mast farm where it heads westward toward existing US 219. The alignment crosses between the Deal and Mast farms then turns in a southerly direction crossing existing US 219 just south of Salisbury, Pennsylvania. The alignment then continues in a southwesterly direction toward the Casselman River crossing the Mason-Dixon line approximately one mile west of existing US 219. Alignment D then heads southward to an interchange with I-68 just west of the existing US 219 interchange.

g. Alignment E

Suggested by the former NEPA efforts team to avoid farmland in Pennsylvania and avoid residential areas along existing US 219. Alignment E is the same as Alignment C in Pennsylvania with the exception of a small portion just north of the state line. At the Pennsylvania/Maryland border, Alignment E would extend in a southwesterly direction east of existing US 219 and west of Alignment C. Alignment E was developed as a shift to Alignment C in Maryland to reduce direct impacts on the Tomlinson Inn and the Little Meadows (Stone House) Historic Site.

h. Alignment E-Shift

Suggested by residents along Old Salisbury Road, during the former NEPA efforts, to move Alignment E further away from residences on Old Salisbury Road. Alignment E-Shift is a similar alignment as Alignment E; the only difference being a small shift in Maryland, near Old Salisbury Road. The shift moves the alignment slightly eastward away from the homes along Old Salisbury Road. Alignment E does not directly impact the homes along Old Salisbury Road; however, residents requested an evaluation of a



slightly eastward shift to move the alignment further from their homes. The trade-off is that Alignment E-Shift bisects a farm field that is only slightly impacted by Alignment E.

i. Alignment AE

Suggested by the former NEPA efforts team to connect the northern portion of Alignment E with the southern portion of Alignment D in Maryland. The intent was to avoid the farmland in Pennsylvania and the Little Meadows in Maryland. Alignment AE is the same as Alignments C and E in Pennsylvania, with the exception of a small portion just north of the state line. At the Pennsylvania/Maryland border, Alignment AE would head in a westerly direction crossing existing US 219 just south of the Mason-Dixon line. Alignment AE was developed as a connection between Alignment E and Alignment D to reduce direct impacts on the Tomlinson Inn and the Little Meadows (Stone House) Historic Site. Alignment AE then heads southward to an interchange with I-68 just west of the existing US 219 interchange.

j. USACOE 1 Alignment

Suggested by the USACOE, during the former NEPA efforts, to combine the northern portion of Alignment A with the southern portion of Alignment E. The intent was to avoid the mountain slope / ridge in Pennsylvania, stay further away from Salisbury Mine,

avoid crossing existing US 219, and stay away from residential areas along existing US 219. This alignment was developed through coordination with the USACOE. Beginning in Hunsrick Summit, USACOE 1 would follow Alignment A to a point just south of Greenville Road. It would then extend southeasterly and swing back to the southwest as it crosses the Mason-Dixon Line. The alignment would converge with Alignment E following it south to the proposed I-68 interchange.

k. USACOE 2 Alignment

Suggested by the USACOE, during the former NEPA efforts, to combine the portion of Alignment D that is north of Piney Creek with the southern portion of Alignment E by crossing between and (hopefully) around the two large farms in Pennsylvania. The intent was to stay further away from Salisbury Mine, avoid crossing existing US 219, and stay away from residential areas along existing US 219, while still trying to avoid farmland. USACOE 2, also developed through coordination with the USACOE, would follow Alignment D south to the crossing of Piney Creek then swing south across the Deal farming operation and Greenville Road. The alignment would continue southwesterly to a connection with Alignment E just south of the Mason-Dixon Line. USACOE 2 would continue south along the same alignment as Alignment E to a connection with I-68 slightly east of the existing I-68/US 219 interchange. In order to make the connection between Alignment D and Alignment E, an encroachment through the center of the Deal Farm would result.



I. USFWS Alignment

Suggested by the USFWS, during the former NEPA efforts, to combine the northern portion of Alignment A with the southern portion of Alignment E. The intent was to avoid the mountain slope / ridge in Pennsylvania and reduce potential impacts to terrestrial wildlife. Developed through coordination with the USFWS, The only difference in the USFWS Alignment compared to USACOE 1 is the connection made between Alignment A and Alignment E. The USFWS option would extend to the west of USACOE 1 between two fields farmed by Lowell Merrill, encroaching onto the Deal Farm.

m. Agency Alignment

Suggested through coordination with various resource agencies, during the former NEPA efforts, intended to combine northern portion of Alignment A (or D) with Alignment E south of the state border. The thought was to keep the alignment further from Salisbury Mine, while still allowing for a crossing of existing US 219 at Salisbury, Pennsylvania – in case a local access interchange was desired by the community. This alignment would follow Alignment D from Hunsrick Summit south to just south of Greenville Road, cross existing US 219 in Pennsylvania south of the Salisbury Builders Supply, and continue in a westerly direction around the Alverno Friary. After skirting the Alverno Friary to the west, the alignment would continue to the southeast crossing existing US 219 for a second time south of the Mason-Dixon Line. The Agency Alignment would join Alignment E, following it south to a connection with I-68 slightly east of the existing I-68/US 219 interchange.

n. US 219 Citizen's Impact Group Alignment (Ridge Options)

Suggested by a Citizen's Group, during the former NEPA efforts, to avoid the Highlands Residential Area and other residential areas along US 219.. Following the November 2004 Public Meeting, the Route 219 Citizens' Impact Group proposed another option for consideration. This option, called the Ridge Option, would extend eastward from Hunsrick Summit, cross Meadow Mountain and connect with I-68 in the area of the Piney Grove Interchange (east of and outside of the study area). The group's goal for the route was to reduce property acquisitions and utilize areas that had been previously disturbed by timbering and tornados.

o. US 219 Western Alignment (Westerly)

Suggested by the current study team in response to public comment to consider a southern connection at New Germany Road (west of the PEL study area in Maryland). The public suggesting this connection wanted to avoid existing built up areas near the I-68 interchange in Maryland. In order to attempt to avoid the Garrett County (Maryland) Employment Center and potential development area located just north and west of the US 219/US 40 Alternate intersection, an alignment was proposed that would extend



further to the west towards Grantsville, Maryland. This alignment was also considered because it avoids the Little Meadows Historic Site.

This alignment would generally follow either the alignment of D or AE from the Meyersdale Bypass south to just south of the Mason-Dixon Line. From the Mason-Dixon Line, the alignment would head in a southwesterly direction to an interchange with I-68 approximately 1.5 miles west of the existing US 219 and I-68 interchange. The proposed I-68 interchange with this alignment would also be approximately 1.5 miles east of the Grantsville Interchange (Maryland Route 495) on I-68. No engineering was done on this alignment; instead a desktop and GIS analysis was completed to evaluate potential concerns and issues.

3. I-68 Interchange Options

Two options were analyzed for connecting to existing I-68 (**See Figure 5-2**). The first interchange layout, Option 1, would provide full directional, freeway-to-freeway access between I-68 and the new US 219. This interchange layout would use long ramps and fly-over ramps on bridge structures. Local access to existing US 219 and US 40 Alternate would be provided.

The second option, Option 2, is also a full directional, freeway-to-freeway access. This interchange would use a trumpet shaped or loop ramp design, therefore local access to existing US 219 and US 40 Alternate would also be provided.

4. Public and Agency Opportunity to Review, Comment and Recommend Alignments

a. Prior to PEL (Former NEPA efforts)

Agency Coordination

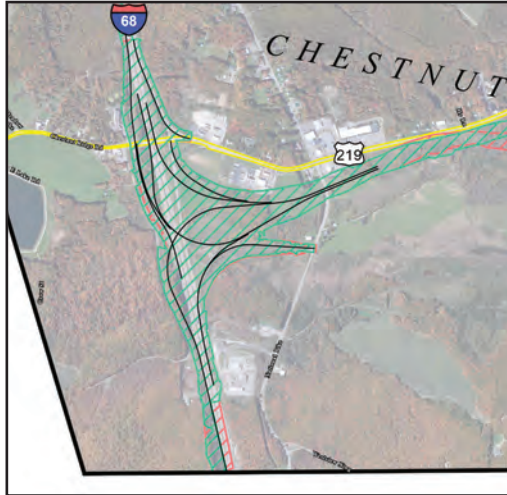
- April 22, 1998 - Project Needs Development Introduction and Overview Agency Coordination Meeting (ACM);
- June 7-8, 1998 - Special Agency Coordination Meeting Field View (ACM);
- January 26, 1999 - Presentation and Concurrence on Needs Study (ACM);
- May 15, 2002 Interagency Review Meeting (IRM) - Introduction to the Environmental Impact Statement (EIS) Project;
- May 22, 2002 ACM - Introduction to the EIS Project;
- June 18, 2002 agency field view - bus tour of the project area;
- December 4, 2002 ACM and December 18, 2002 IRM - Review of resource identification methodology and to seek input on Corridors;
- February 12, 2003 Natural Resource Meeting - Proposed wetland and terrestrial habitat methodologies;
- September 17, 2003 IRM and September 24, 2003 - Requested concurrence with the Alternatives Retained for Detailed Study (ARDS). The retained alternatives



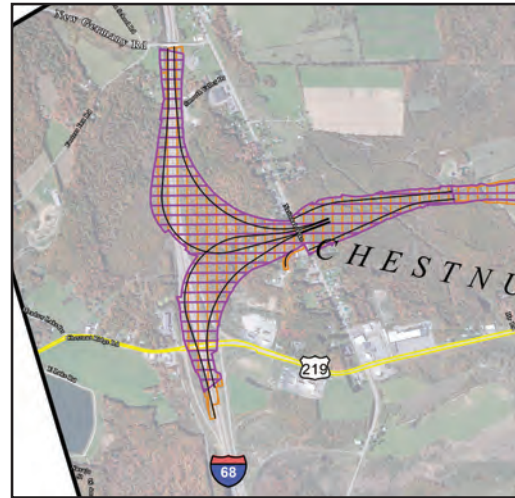
Planning & Environmental Linkages

Flyover (High Speed)

- Uses flyover ramps on bridges
- Requires longer ramps
- Would be free-flowing



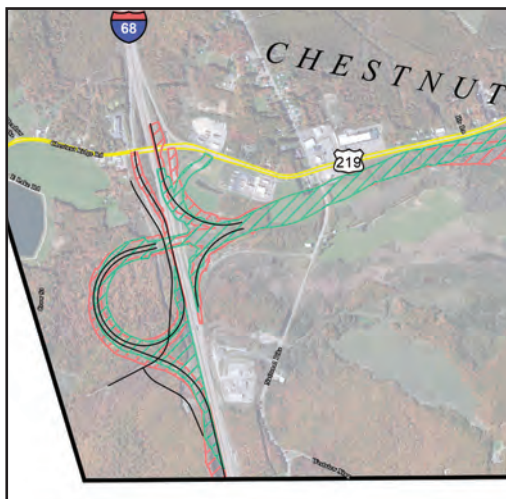
Alignments E and E Shift



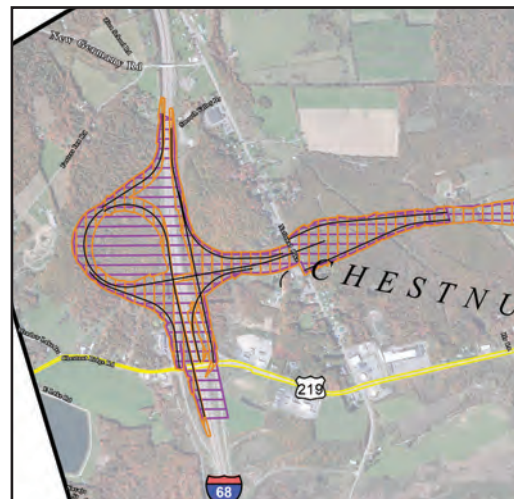
Alignments D and AE

Loop Ramp (Low Speed)

- Does not use flyover ramps
- Requires a greater footprint
- Would be free-flowing



Alignments E and E Shift



Alignments D and AE

**Figure 5-2
Interchange Options**

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



included Alternatives A, D and E (**Agency Concurrence Point in the former NEPA efforts**);

- January 14, 2004 Agency Field View - Review of delineated wetland areas;
- July 21, 2004 IRM and July 28, 2004 ACM - Update on the analysis of the ARDS (Alternatives A, D, and E), and to present Alternative AE. Alternative A dismissed at this meeting (**Agency Concurrence Point in the former NEPA efforts**);
- October 4, 2004 field view - Visit to the Indiana Bat hibernaculum;
- December 21, 2004 USFWS and PGC meeting - Follow-up to October 4, 2004 field view; and
- March 28 and 29, 2006 resource agencies meeting - Project update and presentation on two preliminary sites for mitigation.

Public Coordination

- Website (www.us219.com) April 2002 to November 2007.
- Meyersdale Maple Festival Booths (March/April 2002 and March/April 2003).
- Somerset County, Pennsylvania, Fair Booths (August 2002 and 2003).

Community Advisory Committee

- January 16, 2003 - CAC Orientation and project introduction;
- June 19, 2003 - Presentation of Corridors and Preliminary Alternatives Workshop;
- October 30, 2003 - Presentation of updated Preliminary Alternatives;
- June 2, 2004 - Presentation of ARDS (Alternatives A, D, E, and AE; dismissal of Alternative A); and
- May 15, 2005 - Input on local access interchanges.

Public and Public Official Meetings

- June 17, 2002 - Introductory Public Officials (31 attendees) and Public Meeting (300 attendees) in Salisbury, Pennsylvania;
- February 25, 2003 - Proposed Corridors presentation to public officials and public (220 attendees) in Grantsville, Maryland;
- November 6, 2003 - Presentation on Preliminary Alternatives, including local access interchanges, in Salisbury, Pennsylvania (16 public official attendees and 200 public meeting attendees); and
- November 9, 2004 - Presentation on ARDS in Grantsville, Maryland (200 public meeting attendees).

Newsletter updates (Summer of 2002, Spring of 2003, Winter of (January) 2004 and September of 2004).

Special Interest Group Meetings

- Meyersdale "Think Tank" (February 28, 2002) - Project introduction and explanation of the Environmental Impact Statement (EIS) Process;



- Somerset [Pennsylvania] Chamber of Commerce (February 28, 2002) - Project introduction and explanation of the Environmental Impact Statement (EIS) Process;
- Salisbury Borough and Elk Lick Township, Pennsylvania (December 9, 2003) - Discuss considerations for local access from the Salisbury Borough and Elk Lick Township areas to the improved US 219;
- Presentation to Garrett County (Maryland) Commissioners (September 30, 2003) - Project update, review preliminary alternatives, and interchange considerations;
- Presentation to residents from The Highlands (Maryland) (October 15, 2004) - Review of project alternatives and answer project related questions from the residents;
- Presentation to residents from Windy Acres Lane (Maryland) (October 25, 2004) - review of project alternatives and answer project related questions from the residents;
- Presentation to the Citizens Impact Group (October 27, 2005) - review the results of the preliminary analysis of the Ridge Alignments.

During 2014 Update to the former NEPA efforts

- April 23, 2014 ACM and April 26, 2014 IRM – project update
- June 16, 2014 meeting with USFWS and PGC to discuss bat studies
- June 18, 2014 IRM – project update
- July 1, 2014 Agency meeting and field view – project update and field view of ARDS alignments
- July 23, 2014 – NOI published to establish intent to pursue an EIS (rescinded on February 17, 2016)
- August 18, 2014 Agencies field view of wetlands and streams
- September 23, 2014 Public Informational Meeting - update on project and change from PennDOT lead to MDOT/SHA lead.

b. During PEL Study

- Community Advisory Committee Meetings (August 19, 2015 and December 10, 2015) - Update on the study and change from EIS to a PEL Study;
- Public Informational Workshop (January 6, 2016); and
- July 15, 2015 Findley Spring meeting with Salisbury Borough, Pennsylvania, and PA DEP
- ACM / IRM meetings:
 - July 15 (IRM) and 22 (ACM), 2015 – introduce the PEL study, how PEL compares to NEPA and overview the anticipated agency and public involvement activities



- August 19 (IRM) and 26 (ACM), 2015 – overview of draft PEL Goals and Objectives, introduction to the Chestnut Ridge Development Corridor, and updates on the Indiana bat and northern long-eared bat studies
- September 16 (IRM) and 23 (ACM), 2015 – Update on the Chestnut Ridge Development Corridor and presentation on alignments
- October 28, 2015 Joint IRM / ACM – presentation of anticipated PEL resources, how PEL is the foundation for NEPA, and update on agency / public involvement activities
- December 9, 2015 Joint IRM / ACM – preview of the first four PEL chapters
- January 27, 2016 Joint IRM / ACM – update on PEL Chapters 1 – 4 and presentation of Chapters 5 and 6



Chapter 6 – Steps 1 and 2 Screening of Alignment(s)

1. Screening Criteria and Process

The PEL screening process begins with an analysis as to how well the alignments, described in **Chapter 5**, meet the PEL Vision, Goals, Objectives and Needs (as documented in **Chapters 2 and 3**). Alignments that were found to meet the vision, goals, objectives and needs were then evaluated based on their ability to provide the desired facility performance (**Chapter 3**). All alignments that were able to demonstrate the intended desired performance were then analyzed for potential environmental impacts.

The PEL screening process (see **Figure 6-1**) is an entirely new analysis; it is not a reiteration of the screening completed during the former NEPA efforts. The PEL screening was based on information that was readily available. The PEL study screening included three steps:

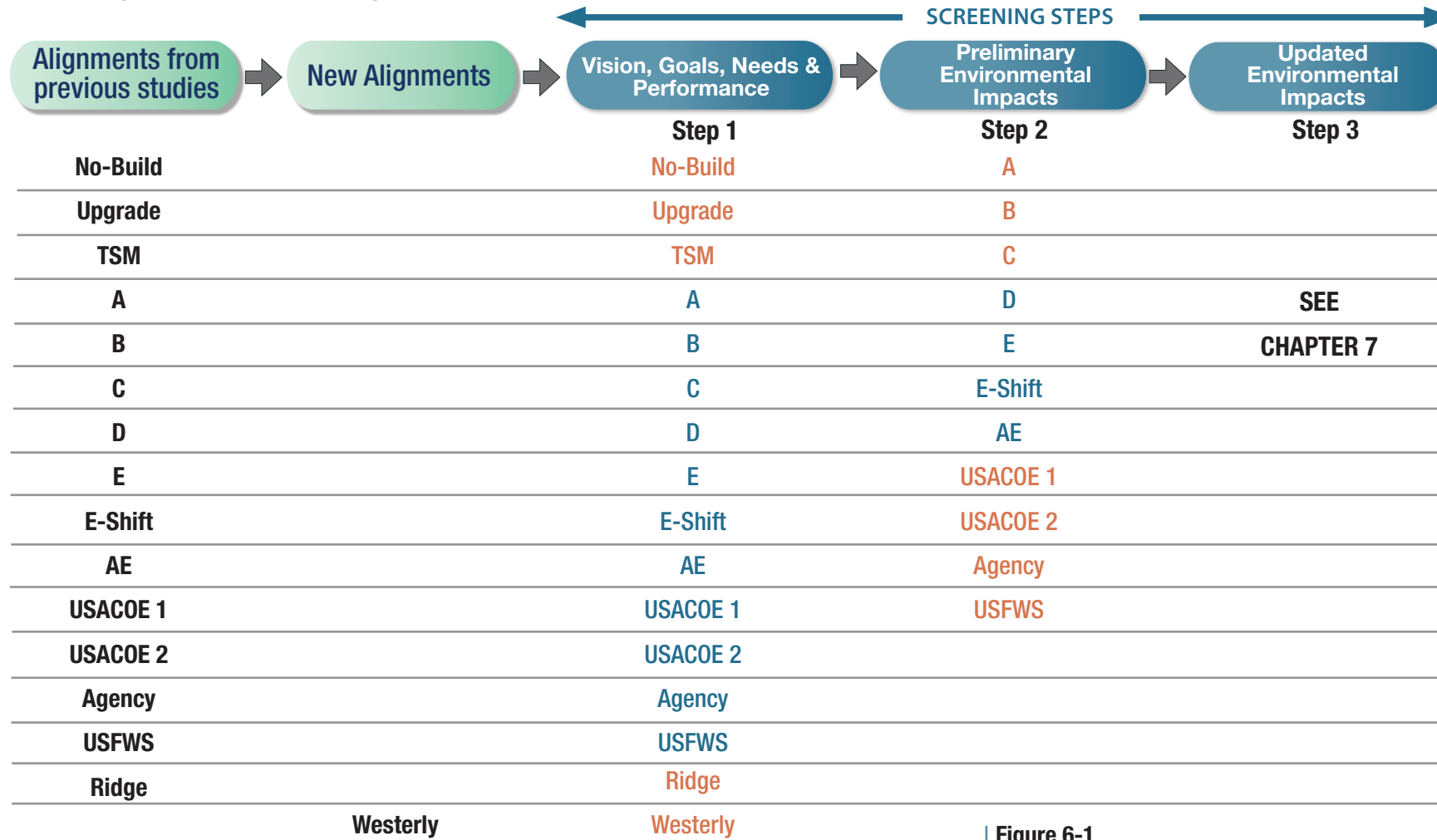
- Step 1. The PEL Vision, Goals, Objectives and Needs, and Performance Measures screening,
- Step 2. An initial environmental and cultural screening of all alignments that passed Step 1. Alignments were assessed using a limit of disturbance of a 50 foot wide buffer outside of the preliminary roadway cut/fill limits and readily available data for the entire study area, and
- Step 3. A second environmental and cultural screening of all alignments that passed Step 2 using an expanded limit of disturbance to account for preliminary stormwater management and a buffer of 50 to 100 foot depending on general topography against recently generated economic and environmental information. This step is documented in **Chapter 7**.

2. Step 1 - Alignments Ability to Meet PEL Vision, Address Identified Problems, and Achieve Desired Facility Performance

Table 6-1 assesses which alignments would meet the PEL Vision, Goals, Objectives and Needs (page one of the table), and whether the alignment could achieve the desired facility performance (page two of the table). As shown on **Table 6-1**, the screening process found the No-Build, Upgrade, TSM, Ridge, and Westerly alignments to be unreasonable, as discussed below. The Limit of Disturbance (LOD) for each alignment during Step 1 and Step 2 is as described above.

Planning & Environmental Linkages

PEL Alignment Screening Process



Considered reasonable at this step
Considered unreasonable at this step

Figure 6-1
PEL Alignment Screening Process

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



**Table 6-1
Step 1 - PEL Vision & Goals and Desired Performance Screening**

Alignments:		No-Build	Upgrade	TSM	A	B	C	D	E	E-Shift	AE	USACOE1	USACOE2	USFWS	Agency	Ridge	Westerly
PEL VISION, GOALS, OBJECTIVES & NEEDS																	
Vision:	<i>To assist ARC in working toward the completion of Corridor N of the Appalachian Development Highway System (ADHS) through improvements to the section of US 219 between Meyersdale, Pennsylvania and I-68 in Maryland. The vision includes the desire to generate economic development in previously isolated areas, supplement the interstate system through connecting I-68 and the Pennsylvania Turnpike (I-76), connect the Study Area portion of Appalachia to the interstate system, provide access to areas within the region as well as to markets in the rest of the nation, improve (the level of) safety for motorists traveling on US 219.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Regional & Local Economics																	
Goal	<i>Provide safe and efficient access for the southern Somerset County (Pennsylvania) and northern Garrett County (Maryland) regions in order to improve their economic development potential.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially**	Partially**
Objectives	<i>Link the Appalachian Region to the rest of the United States and Canada to be consistent with other completed ADHS highways (four-lane, limited access type facility).</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	<i>Contribute to the growth of economic development within the Appalachian Region.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially	Partially**
Need(s)	<i>Economic growth in the study area is stagnant due to lack of efficient highway access.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially	Partially**
	<i>Safe and efficient access to southern Somerset County, Pennsylvania and northern Garrett County, Maryland is hampered by lack of north-south interstate type facility access.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially	Yes
Mobility																	
Goal	<i>Improve mobility in the US 219 corridor.</i>	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially	Yes
Objectives	<i>Improve the system linkage between I-68 and the Meyersdale Bypass.</i>	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	<i>Provide a facility consistent with adjacent four-</i>	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**Table 6-1
Step 1 - PEL Vision & Goals and Desired Performance Screening**

Alignments:		No-Build	Upgrade	TSM	A	B	C	D	E	E-Shift	AE	USACOE1	USACOE2	USFWS	Agency	Ridge	Westerly
	<i>lane limited access facilities to the north and south of the study area corridor.</i>																
Need(s)	<i>Mobility on this section of US 219 is affected by high truck volumes, which may increase when the new US 219 four-lane from Somerset to Meyersdale in Pennsylvania is completed, and may be further affected by increased traffic resulting from a proposed Casselman Farm development in Maryland.</i>	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partially*	Yes
Safety																	
Goal	<i>Improve (the level of) safety for motorists traveling on US 219.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
Objectives	<i>Reduce traffic volumes on existing US 219.</i>	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
	<i>Separate heavy truck traffic from local automobile traffic.</i>	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
Need(s)	<i>Numerous roadway geometric features on existing US 219 (when combined with high truck volumes) result in safety issues that do not meet current design standards with regards to lane and shoulder width, hills (vertical grade), curves (horizontal curvature), and sight distance.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	No***
	<i>Some areas of existing US 219 exhibit a crash history higher than the statewide average for similarly designed roads.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
	<i>Existing traffic volumes and a high truck percentage contribute to safety concerns.</i>	No	Partially	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
DESIRED FACILITY PERFORMANCE																	
Regional & Local Economics																	
Performance Measure	<i>Result in a net increase in the number of miles of the ADHS Corridor N open to traffic.</i>	No	No****	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mobility																	
Performance Measure	<i>Reduce north-south travel time within the study area by approximately 15% or greater</i>	No	Unlikely	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Safety																	



**Table 6-1
Step 1 - PEL Vision & Goals and Desired Performance Screening**

Alignments:		No-Build	Upgrade	TSM	A	B	C	D	E	E-Shift	AE	USACOE1	USACOE2	USFWS	Agency	Ridge	Westerly
Performance Measures	<i>Achieve approximately 15%, or greater, reduction in traffic volume on existing US 219.</i>	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
	<i>Achieve approximately 25%, or greater, reduction in truck volumes on existing US 219.</i>	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No*	Yes
	<i>Achieve a 40% to 60% reduction in crashes; available research^{19 20} suggests that converting a two-lane undivided rural highway into a four-lane divided highway can achieve this reduction.</i>	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

NOTES: * Would not be expected to remove sufficient truck traffic from existing US 219 due to longer route east and steeper grades required to cross Meadow Mountain - safety issues would remain on the existing roadway due to no reduction in traffic volumes
 ** Outside of a Maryland PFA, removed from any Employment Centers - unlike the remainder of the alignments, which are close to / within a PFA and Employment Center
 *** Interchange spacing on I-68 would not meet criteria (the proposed interchange design for alignments A, B, C, D, E, E-Shift, AE, USACOE1, USACOE2, USFWS, and Agency would function as one interchange with the existing US 219 / I-68 interchange; therefore, spacing on the other build alignments is not an issue).
 **** Upgrade on existing would include multiple local at-grade intersections to maintain existing entrances/accesses on US 219.

¹⁹ *Effects of Geometric Characteristics of Rural Two-Lane Roads on Safety, Final Report*, Samuel Labi, June 2006 (FHWA/IN/JTRP-2005/2) <http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1709&context=jtrp>

²⁰ *Safety Effects of the Conversion of Rural Two-Lane Roadways to Four-Lane Roadways*, Summary Report, US Department of Transportation, FHWA, Highway Safety Information System, November 1999. <https://www.fhwa.dot.gov/publications/research/safety/humanfac/pdfs/99206.pdf>



Details on the alignments that are not moving forward for further consideration, are as follows:

No-Build

The No-Build alignment would not meet the established PEL Vision of working toward completion of Corridor N of the ADHS. Additionally, not improving the existing transportation facility would do nothing to address any of the existing deficiencies or safety issues on US 219, nor would it do anything to enhance opportunities for economic growth and development. Because the No-Build alignment does not meet the PEL Vision, Goals and Needs, it is considered not reasonable, and is not moving forward for further consideration and analysis.

Upgrade Alignment

The Upgrade Alignment would not meet the safety objectives to reduce traffic volumes on existing US 219, or to remove truck traffic from the existing route. Because the Upgrade Alignment does not meet the PEL Vision, it is not moving forward for further consideration and analysis.

The following information, from Step 2, is provided to supplement and support the elimination of the Upgrade Alignment although this alignment is being screened out in Step 1 as mentioned above. The Upgrade Alignment would have the greatest impacts to existing communities by requiring the relocation of up to 100 residences, and approximately 24 businesses. The community impact of this alignment is much greater than any other alignments. An impact of this magnitude on existing communities would not align with the goals of ARC, which seeks to strengthen the capacity of Appalachian residents and communities to compete in the global economy.²¹ While the Upgrade Alignment would have fewer impacts to the natural environment than other alignments, the impact to communities would be more extensive than any of the other alignments. In Maryland, it is anticipated that most of the commercial properties located along US 219 (including the Pilot truck stop, Burger King, small shopping plazas, etc.), and one church would be displaced by this alignment.

The Upgrade Alignment would be expected to have an impact on the Tomlinson Inn and Little Meadows, Braddock's Road, and National Road. However, because the impact would be from an upgrade of an existing alignment, the impact would not be expected to be adverse. The Upgrade Alignment is being screened out due to not meeting the PEL Vision, Goals, Objectives and Needs and Performance measures as

²¹ Please see ARC's current Strategic Plan
<http://www.arc.gov/images/newsroom/publications/sp/InvestinginAppalachiasFutureARCs2016-2020StrategicPlan.pdf>



well as other remaining alignments, along with much greater impacts to communities when compared to other possible solutions.

TSM Alignment

Transportation Systems Management (TSM) improvements are aimed at finding ways to increase capacity and efficiency, and reduce congestion on existing facilities without extensive capital involvement. TSM techniques include such items as HOV lanes, signal retiming, ramp metering, roundabouts, and speed limit reduction and enforcement, to name a few. Incorporating TSM techniques would not meet the established PEL Vision. Additionally, TSM techniques would do nothing to address the existing deficiencies and safety issues on existing US 219, nor would they provide opportunities for economic development. Because the TSM Alignment option does not meet the PEL Visions, Goals, Objectives and Needs, it is considered unreasonable and is not being carried forward for further consideration and analysis.

Ridge Alignment

The Ridge Alignment would not meet the PEL Vision and does not meet all of the PEL Goals. The Ridge Alignment would require that the alignment of US 219 be moved eastward (by approximately three miles at the furthest point) this would take the alignment outside of the ADHS Corridor N intended route and therefore does not meet the Vision. The Ridge Alignment connects to I-68 east of the study area, approximately three miles outside of a PFA, and is removed from any county development centers. Therefore, it is only partially able to meet the regional and local economic goals and needs; and would not serve any known or reasonably foreseeable development areas. In addition, it is anticipated that the Ridge Alignment would not attract traffic away from existing US 219 as much as alignments that are closer to the existing corridor, thereby not addressing the mobility or safety objectives and needs on existing US 219, as shown in **Table 6-1**. The Ridge Alignment would connect with I-68 approximately four miles east of the existing US 219 interchange, adding approximately six miles to a trip on US 219 (considering the length of the Ridge Alignment compared to the other alignments under study). Adding six additional miles to a route that is currently only eight miles long from Meyersdale, Pennsylvania to the existing I-68 interchange in Maryland would likely discourage many motorists (especially trucks) from using this route. Therefore, this alignment does not meet the PEL objective to remove truck traffic from existing two-lane US 219, because it would not sufficiently reduce truck traffic on existing 219.

In addition, although the Ridge Alignment was not advanced through to the environmental screening process, it should be noted that this alignment would be located within the forest interior. Per letters from Maryland Department of Natural Resources (MD DNR) (September 10, 2002 and May 10, 2005 - see **Appendix 5A, Resource Agency Letters**), alignments within the forest interior should be avoided due to Forest Interior Dwelling Bird Species (FIDS). Also, the Maryland Department of



Natural Resources in their May 10, 2005 letter mention that the Ridge Alignment passes through areas of known locations for plant species of special concern. No other alignment has been identified to be within a known location for plant species of special concern. Finally, the Ridge Alignment is upslope of Findley Spring (Salisbury Borough's only water supply), and crosses through the spring's recharge area. The Ridge Alignment would likely have an adverse impact on the spring; the only alignment to impact the spring.

For these reasons, the Ridge Alignment is considered unreasonable and will not be carried forward for further study because it would not achieve the study vision, meet the goals and needs of the study, and has the potential for more environmental impacts.

Westerly Alignment

The Westerly Alignment (see **Figure 5-1, Alignments Under Consideration**) is a new alignment that was not studied during former NEPA efforts; therefore, the same level of design is not available for this alignment. The following discussion is based on a conceptual layout of the alignment that was performed using aerial mapping. The Westerly Alignment meets the PEL Vision but it is the only alignment that would not meet AASHTO's current design standards and it does not meet all of the PEL Goals. The Westerly Alignment would need to tie in to I-68 in a location that is less than 1.5 miles in each direction, from existing I-68 interchanges. This interchange spacing (1.5 miles at the center point of the interchange, not at the end of the ramp run-outs) does not meet current federal design standards for interstates. The end terminus of the proposed ramps for a Westerly Alignment interchange would be within several hundred feet of the ramp run-outs of the existing US 219 and Grantsville interchanges, with I-68 in Maryland. This close spacing would require a design exception and special considerations during design to provide adequate weave and merge transitions on I-68.

The Westerly Alignment is located approximately 1.5 miles outside of the PFA. The other remaining alignments are either within the PFA or immediately adjacent to the PFA. This location, removed from the PFA and the Garrett County Employment Center (in Maryland), would not address regional and local economics goals and needs, in comparison to the other remaining alignments.

In addition, although the Westerly Alignment was not advanced through to Step 2 (the initial environmental screening process), it should be noted that the alignment is in closer proximity to the Casselman River than any other alignment (within 800 feet from the approximate centerline of the alignment at the closest point - the limit of disturbance would be much closer to the river). In letters dated June 25, 2002; July 24, 2002; and December 2, 2002 - see **Appendix 5A**, the MD DNR discouraged any direct impact to the Casselman River, and any alignments within close proximity to the river. MD DNR stated that the Casselman River is a complex and unique resource with



numerous records of species of special concern along the banks / slopes and within the river. In more recent coordination (2014), MD DNR provided a list of known rare, threatened and endangered species associated with the Casselman River and the downstream Nontidal Wetlands of Special State Concern (regulated by MDE). The Casselman River has resident trout populations and reproducing small mouth bass populations. It is likely that the proposed I-68 interchange with a Westerly Alignment would have a direct impact on the river at the western end of the required ramp transitions on I-68, due to the required widening of I-68. Due to the limitations described above, the Westerly Alignment is not being carried forward for further consideration and analysis.

Remaining Alignments

Of the 15 alignments and the no-build option, five as described above are not considered reasonable, and are not included for further consideration because they either did not meet the PEL Vision, did not meet the PEL Goals, Objectives, and Needs, or, as with the Westerly Alignment, could not meet current design standards. As shown in **Table 6-1**, the remaining 11 possible alignments meet the initial screening criteria, and are considered for further analysis as described in the following section.

3. Step 2 - Initial Environmental and Cultural Screening

Table 6-2 provides an analysis of the anticipated environmental consequences of each alignment that was advanced through the vision, goals, objectives, needs and desired facility performance screening. The environmental information used to assess the Step 2 alignments was based on preliminary information gathered during previous NEPA efforts (2002-2007, 2014); as the PEL planning-level process typically utilizes readily available data to complete its analyses. In addition, some data has been supplemented with current secondary source information, such as GIS, resource agency mapping/databases, and other readily available information.

Step 2 Screening Methodology

In order to ensure a fair assessment of alignments, the Step 2 PEL environmental screening process used available data that would result in a consistent analysis using the same data for all alignments (a fair comparison). Data utilized included:

- Actual structure (residential and commercial) locations based on study area mapping updated with field view information;
- Productive agriculture (cropland / pasture) locations based on property information, aerial mapping, field views, and data from the 2003 / 2005 farmer interviews along with the current NLCD;
- National Wetland Inventory (NWI) wetland dataset;
- National Hydrography Dataset (NHD) streams;
- Forestland land use from the NLCD;



- State Game Land #231 boundary
- Eligible Historic Resources - based on data collected during the former NEPA efforts;
- Archaeology - based on the archaeology predictive model layers developed during the former NEPA efforts; and
- Garrett County (Maryland) Employment Center - property boundary corresponding to the employment center, per Garrett County, Maryland records.

Floodplains were not specifically evaluated in the analysis, as the linear feet of impacts to NHD streams would be similar to the potential for floodplain impacts. In addition, the major floodplain, associated with Piney Creek, in the study area that would be affected would be crossed by all alignments, via a large bridge.

None of the remaining alignments would impact Findley Spring (Salisbury's water supply), and all alignments would bridge the waterline from the spring with the structure crossing Piney Run. As stated previously, the Ridge Alignment would have come closest to the spring, and was the only alignment with the potential for an impact.

None of the remaining alignments would impact community facilities, including fire stations, churches, etc. No other socio-economic features in the study area would influence an alignment decision.

The greatest potential for any alignment to impact geological features of concern (such as acid mine drainage, deep mines, etc.) is along the steep slopes of Meadow Mountain, particularly north of Piney Creek (based on geological information collected during the former NEPA efforts). Because the alignments are on a generally common alignment through this area, it is not anticipated that any alignment would have substantially greater potential for impact than the other alignments to geological and mining resources. This issue would need to be further studied and analyzed during any potential future design and NEPA efforts.

While potential hazardous waste sites were documented, during the former NEPA efforts within Alignment D, E, E-Shift and AE, hazardous waste potential was not assessed as part of this analysis. Given the rural nature of the study, it is unlikely that any alignment would have impacts to potential waste sites of a magnitude greater than any other alignment. Therefore, hazardous waste sites are not likely to influence an alignment decision. This issue would need to be further studied and analyzed during any potential future design and NEPA efforts.

During field studies, including those conducted in the summer of 2014, trained field crews were tasked with identifying any plant species of special concern and / or habitat for animal species of special concern within the study area, based on 2014 data from the environmental resource agencies. Other than the Indiana, northern long-eared and eastern small-footed bats, no species of special concern or habitat features were positively identified in the study area. The potential for impact to the referenced bat



species is generally captured in the analysis of forestland impacts. In addition, the text below discusses whether any alignment would have the potential to directly impact any of the known hibernacula identified during the 2005 and 2014 bat studies. Note that none of the 11 alignments has a direct impact on Salisbury Cave, although two alignments (Alignment D and USACOE2) would potentially impact three hibernacula (abandoned mine portals). Similarly, none of the known roost locations identified during the 2014 studies would be impacted, and no known locations of high quality rocky habitat (northern long ear bat) would be impacted based on this preliminary analysis. The analysis and discussion on impacts to species of special concern would need to be resolved during any future NEPA project studies.

Impacts to the Pennsylvania State Game Lands #231 are anticipated to be the same for all alignments as this portion is on a common alignment. The impact to SGL #231 occurs on the western edge of the property in two separate locations and total approximately 1 acre. This impact will need to be further investigated during any potential future design and NEPA efforts to determine if the impact can be minimized or avoided altogether.

Impacts to noise and air quality from the alignments are anticipated to be very similar as traffic volumes on any future-build alignment. Therefore, no noise or air quality analysis was included in this PEL study screening. Noise and air quality impacts would also need to be evaluated during any potential future NEPA project studies.

Step 2 - Initial Environmental/Cultural Screening Results

Following the initial environmental and cultural analysis, the following Alignments are considered unreasonable due to their potential impacts in comparison to other solutions: A, B, C, USACOE 1, USACOE 2, Agency, and USFWS. Details on why these alignments are considered unreasonable are as follows (see **Table 6-2, Step 2 – Initial Environmental and Cultural Screening**):

**Table 6-2
Step 2 - Initial Environmental and Cultural Screening***

Alignments (former NEPA efforts cut/fill plus 50 feet each side):	A	B	C	D	E	E-Shift	AE	USACOE1	USACOE2	USFWS	Agency	Data Source
Residential Displacements (#)	10	11	8	7	2	2	5	15	11	15	7	County Tax Maps, Field Views, Aerial photography
Commercial Displacements (#)	1	7	7	1	1	1	1	1	1	1	2	
Community Facilities (#)	0	0	0	0	0	0	0	0	0	0	0	
Productive Agriculture (ac.)	80	113	36	102	39	42	16	118	95	115	177	NLCD - 2015
NWI Wetlands (ac.)	0.4	2.9	0.0	0.0	0.1	0.1	0.2	1.4	1.8	1.8	0.1	NWI - 2015
NHD Streams (linear feet)	3,719	7,345	2,336	2,954	2,302	2,302	1,470	5,648	6,682	6,725	4,552	NHD - 2015
Forestland (ac.)	275	227	242	375	235	235	294	259	284	294	298	NLCD 2015
Eligible Resources - Historic****												
<i>Tomlinson Inn and Little Meadows (Stone House)</i>	No Adverse Effect	Adverse Effect**	Adverse Effect***	No Adverse Effect	Adverse Effect	Adverse Effect	No Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	2005/2006 Section 106 determinations made during former NEPA efforts
<i>Braddock's Road</i>	Adverse Effect	No Effect	No Effect	Adverse Effect	No Effect	No Effect	Adverse Effect	No Effect	No Effect	No Effect	No Effect	
<i>Lowry Farm</i>	No Effect	No Effect	No Effect	Adverse Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	
<i>National Road</i>	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	Adverse Effect	
Archaeology												
<i>Pre-Historic Potential - High (ac.)</i>	31	45	19	32	20	20	28	35	27	30	30	2004 archaeology predictive model created during former NEPA efforts
<i>Pre-Historic Potential - Moderate (ac.)</i>	235	246	198	342	229	229	233	293	284	286	345	
<i>Historic Potential - (ac.)</i>	1.3	0.8	0.4	1.4	0.4	0.5	0.0	1.6	2.1	1.8	1.8	
Garrett County (Maryland) Employment Center / PFA	Bisects Property	No Impact	No Impact	Bisects Property	No Impact	No Impact	Bisects Property	No Impact	No Impact	No Impact	No Impact	Garrett County
Limit of Disturbance (acres)	416	462	392	529	476	418	396	504	501	539	571	GIS

General Impact Categories

	High Impact
	Medium / Moderate Impact
	Low Impact

Note: General Impact Categories were separated into high, medium, and low by segmenting the difference between the highest impact amount for each resource and the lowest impact into **approximately** thirds with the highest third = high impact; middle third = medium/moderate impact; and lowest third = low impact. Professional judgment was used in some categorizations to ensure the categories make sense. Some impact ranges include very high outliers (like the Upgrade Alignment residential displacement) that were not included in the segmenting process, as they would skew the categories.

* Impacts ran from GIS on 12/18/15 and 12/21/15

** Encroaches further into Little Meadows site and closer to Meadow Run and its wetland complexes than any other alignment other than Alignment C.

*** Encroaches further into Little Meadows site and closer to Meadow Run and its wetland complexes than any other alignment.

**** Based on the Section 106 determinations made during the former NEPA efforts. Historic resources not shown in this table are not impacted by any alignment.



Alignment A

Alignment A has higher impacts to productive agriculture and NHD streams than Alignment E, E-Shift, and AE, and would require approximately 10 residential displacements, one of the highest residential impacts. In addition, Alignment A would have an anticipated adverse effect on two historic sites, a potential no adverse effect on one historic property, a higher potential for archaeology impacts, and it would bisect the Garrett County Employment Center (in Maryland). Bisection of the employment center would affect the future of a known proposed development, which is counterproductive to the vision and goals of this study. When compared to the other possible solutions (especially, Alignments E, E-Shift, and AE), Alignment A does not compare favorably, and offers no advantages over these alignments. For these reasons, Alignment A has been screened out of the study.

Alignment B

Alignment B would also have one of the highest impacts to productive agriculture, and would require approximately 11 residential and seven commercial displacements. In addition, Alignment B would have the highest NWI wetland impacts, an anticipated adverse effect on two historic sites, and the highest impact to NHD streams. Alignment B would encroach further into the Little Meadows historic site than any other alignment, apart from Alignment C. This alignment would have the highest potential for impact to pre-historic archaeology. Therefore, Alignment B does not compare favorably to other alignments (specifically, Alignments E, E-Shift, and AE), and has been screened out of the study.

Alignment C

Alignment C would require approximately eight residential and seven commercial displacements. In addition, Alignment C would have an anticipated adverse effect on two historic sites, and would encroach further into the Little Meadows historic site than any other alignment. Alignment C would also come closer than any other alignment to, and potentially impact, the Meadow Run wetland complex that is located within the Little Meadows historic site. Alignment E was developed as a minimization measure for Alignment C's impacts on the Little Meadows Historic Site (Alignment E was shifted to the west). The Meadow Run wetland complex is a very unique ecological resource that would not be impacted by any other alignment. For these reasons, Alignment C does not compare favorably (especially to Alignment E, E-Shift, and AE) and has been screened out of the study.

USACOE 1 Alignment

USACOE1 Alignment will have 15 residential impacts, and one of the highest productive agriculture impacts. It also has higher NHD stream impacts, and higher forestland impacts than other alignments (including Alignment E, E-Shift, and AE; and



the previously dismissed Alignment C). Similar to the other alignments, USACOE1 Alignment is anticipated to adversely affect two historic properties. USACOE1 Alignment does not compare favorably to other alignments (especially Alignment E, E-Shift and AE), and therefore has been screened out of the study.

USACOE 2 Alignment

USACOE2 Alignment would displace 11 residences and would have higher streams and forest impacts than USACOE1 Alignment. Similar to Alignment D, USACOE2 Alignment would likely have a direct impact on three potential bat hibernacula identified during the 2014 Fall Harp Net surveys. These three hibernacula are located along Piney Creek. For these reasons, USACOE2 Alignment does not compare favorably to other alignments (especially Alignment E, E-Shift and AE) and has been screened out of the study.

USFWS Alignment

USFWS Alignment will have one of the highest impacts to productive agriculture, and will require approximately 15 residential displacements. In addition, USFWS Alignment would have an anticipated adverse effect on two historic sites, a higher potential for forestland impacts, and a higher potential for impact to NHD streams, when compared to other alignments (including Alignment E, E-Shift, and AE). USFWS Alignment would also impact the second highest amount of NWI wetlands (tie with USACOE1 Alignment). USFWS Alignment does not compare favorably to other alignments (especially Alignment E, E-Shift and AE) and has been screened out of the study.

Agency Alignment

Agency Alignment would have the highest impacts to productive agriculture, second highest impact to forestland, and would require approximately seven residential displacements. In addition, this alignment would have an anticipated adverse effect on two historic sites and would have greater potential for archaeology impacts, when compared to Alignment E, E-Shift, and AE. Agency Alignment has greater impacts than the other alignments and therefore, has been screened out as well.

Step 2 Summary

Of the 11 alignments included in the environmental (natural, socio-economic, and cultural environments) screening, all but Alignment E, E-Shift, AE, and D have been determined to be unreasonable by the Step 2 screening methodology, and will not be advanced for further consideration in Step 3. Should new information become available, the option exists that previously evaluated alignments, including those found unreasonable, may need to be reevaluated during future NEPA studies.



Remaining Alignments

Alignment E

As shown in **Table 6-2**, Alignment E has the least amount of residential impacts and the lowest commercial impact. Alignment E also has one of the lowest impacts to productive agriculture, NWI wetlands, NHD streams, and forestland. This alignment has similar historic resource effects as all of the other alignments, but has the least potential for archaeology impacts. Alignment E is a reasonable alignment and will be carried forward for additional study.

Alignment E-Shift

Alignment E-Shift is the same alignment as Alignment E, except for a small area in Maryland near Old Salisbury Road; therefore, its impacts are very similar. Alignment E-Shift has slightly more productive agriculture impact than Alignment E; although Alignment E-Shift has a slightly smaller limit of disturbance. **See Table 6-2.** Alignment E-Shift is a reasonable alignment and will be carried forward for additional study.

Alignment AE

Alignment AE has the second lowest residential impacts and the same commercial impact as alignments E and E-Shift. Alignment AE has the lowest productive agriculture impacts. **See Table 6-2.** It also has some of the lowest NWI wetland and NHD stream impacts. Alignment AE has the smallest limit of disturbance. Alignment AE is a reasonable alignment and will be carried forward for additional study.

Alignment D

Alignment D would displace seven residences and one business, and have an anticipated adverse effect to three historic properties (more than any other alignment); have one of the highest impacts to productive agriculture, when compared to all other alignments (including Alignments E, E-Shift, and AE), and have the greatest impact to forestland; have a higher potential for archaeology impacts in comparison to other alignments, and would bisect the Garrett County designated Garrett County Employment Center (in Maryland) in the same manner as Alignment AE; and would, likely, have a direct impact on three potential bat hibernacula identified during the 2014 Fall Harp Net surveys. Alignment D is one of only two alignments that have the potential for a direct impact on bat hibernacula.

During the former NEPA efforts, the study team evaluated each alignment (Alignments A, B, C, D, E, E-Shift, AE, Upgrade, USFWS, USACOE1, USACOE2) for inclusion of a local access interchange near Salisbury, Pennsylvania, which is centrally located within the study area. The study team felt that it was important to provide a local interchange to gauge public support or dissatisfaction with the local interchange. An interchange was added to Alignment D because Alignment A, which crosses US 219 at the same



location as Alignment D, has comparatively more residential displacements and higher potential for NHD stream impacts than Alignment D has with the interchange. In addition, adding an interchange to Alignment A would increase its productive agriculture impacts to a similar amount as with Alignment D. The addition of a local access interchange to Alignment A, Upgrade, USFWS, USACOE1, USACOE2, and Alignment B would increase their footprints and result in additional environmental impacts. The other alignments that met the Vision, Goals, Objectives and Needs (Alignment C, E, E-Shift, and AE) are all on the same alignment in Pennsylvania, which is farther removed (approximately two-miles) from Salisbury, PA; making them unsuitable for a local access interchange (the distance would not produce sufficient traffic attraction based on analyses completed during the former NEPA project). Therefore, no local access interchange was proposed for these alignments. The decision to consider Alignment D as the option with a local access interchange is further supported by the following:

- The Upgrade Alignment has higher residential displacements than Alignment D.
- Alignment A has higher residential displacements and higher potential for NHD stream impacts than Alignment D.
- The USFWS Alignment has higher residential displacements, higher potential for NHD stream impacts and higher productive agricultural land impacts than Alignment D.
- Alignment B has higher potential for productive agriculture, NWI wetland, and NHD stream impacts than Alignment D.
- The USACOE1 Alignment has higher residential displacements and higher potential for productive agricultural land and NHD stream impacts than Alignment D.
- The USACOE2 Alignment has higher residential displacements and higher potential for NHD stream impacts than Alignment D.

Although Alignment D demonstrates cumulatively higher impacts when compared to the other alignments, this is primarily due to the local access interchange. Adding a local access interchange to other alignments will result in higher impacts to resources, including to productive agricultural lands and forestland (threatened and endangered bat species impact).

Alignment D is being retained in this step of the screening analysis in order to allow for additional public feedback, as it was the alignment option selected to provide a local access interchange near the Borough of Salisbury.

Additionally, a further assessment of Alignment D is discussed in **Chapter 7 (Step 3)**, and allows for a more detailed analysis with additional field studies and potential SWM impacts. Because Alignment D crosses through the valley, as opposed to being on the side of the ridge, like Alignment E, E-Shift, and AE, it allows for an assessment of SWM requirements against varying topographic conditions. Carrying Alignment D



forward, into Step 3, will ensure that sufficient analysis is performed in order to determine the viability of this alignment.



Chapter 7 – Step 3 Screening of Alignments

1. Screening Criteria for Step 3

During the entire PEL process, the study team has listened and considered feedback from a variety of stakeholders, which include local jurisdictions, environmental regulatory agencies, and the public at large. The stakeholder information helped guide the study and the technical screening analyses in Chapter 6, allowed for the study team determination that it is unreasonable to carry forward several alignments for further consideration and that Alignments E, E-shift, AE and D should be subject to additional consideration.

While coordinating with stakeholders during the PEL study, team members were presented with several topics of importance. These topics are issues that have been brought to the study team's attention throughout several efforts within Corridor N. The study team has been challenged with addressing environmental concerns initially raised through prior NEPA project studies, answering more recent regulatory agency questions on conceptual impacts, and working with local jurisdiction representatives to understand emerging economic development needs. In order to determine if any of these topics could inform the planning level assessment of the US 219 study, it was determined that a third step in the evaluation process was warranted, even though it necessitated targeted data collection.

The Step 2 screening analysis documented in Chapter 6 used readily available data to screen out alignments and carried Alignments E, E-Shift, AE and D forward for further assessment in Step 3 (see Figure 7-1). This Step 3 screening was included in the PEL Study to allow the collection or generation and use of targeted data to further refine which of the four alignments met the reasonable standard for advancing into a NEPA study. The data that was generated for use includes: a) wetland and stream and federally threatened bat species data (collected in 2014 immediately before the project transitioned into a PEL study); b) more detailed analysis of stormwater management facility locations that caused the LOD to be expanded (generated in 2015); c) discussion of two economic impact analyses conducted for Garrett County and the region (2015 and 2016) and d) current outreach to the public about these four alignments (2014 – 2015). The wetland and stream and threatened bat species data will be part of the screening discussions and is reflected in the Step 3 detailed impact assessment **Table 7-1**.

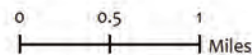
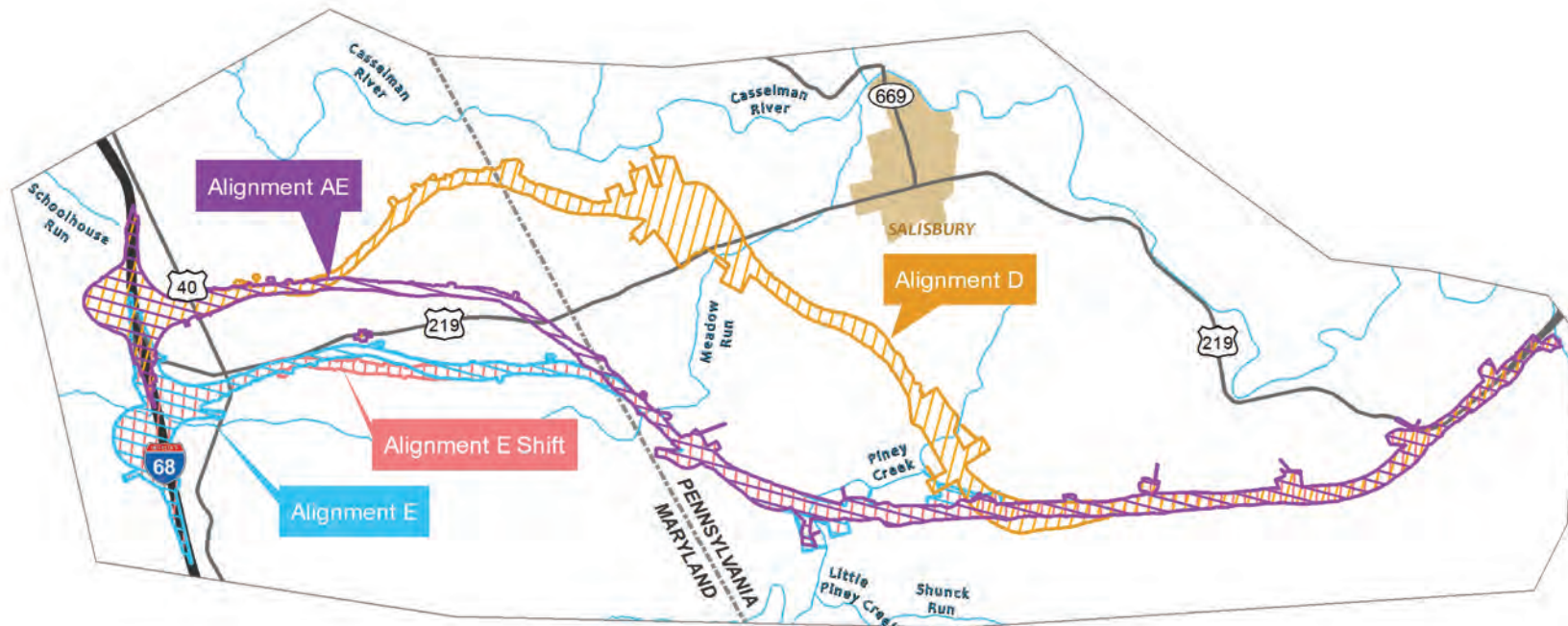


Figure 7-1
Step 3 Alignments

US 219

Summit and Elk Lick Townships

Somerset County, Pennsylvania and Garrett County, Maryland



2. Expanded Environmental Data Set

As discussed in **Chapter 6, Section 3. Step 2 - Initial Environmental and Cultural Screening**, US Census data, resource agency databases and mapping, recent local planning documents, and data from the former NEPA project studies (2002 – 2007, and 2014) was used in this analysis. This data was also used in Step 3's analysis. Since the 2014 wetland and stream delineation data was obtained for a smaller footprint than is being analyzed in the Step 3 analysis, NWI wetlands and NHD stream data were used to supplement the 2014 delineations. During future NEPA project studies the footprint for the entire LOD of each alignment will be field delineated, and impacts will be updated accordingly.

3. Revised Limit of Disturbance (with Stormwater Management)

Due to the steepness of hillsides and deep valleys in Pennsylvania, the LOD was set at a minimum 100-foot offset from the toe of fill or top of cut. The LOD at local road realignments were set to a minimum offset of 100-foot from the toe of fill or top of cut, and 100 feet past the end of the alignment.

Due to the uniformity of the existing terrain for the alignments in Maryland, the LOD was set at a minimum 50-foot offset from the toe of fill or top of cut. The LOD at local road realignments were set to a minimum offset of 50-foot from the toe of fill or top of cut, and 50 feet past the end of proposed work.

As preliminary locations for SWM BMPs were identified within the sub-watershed areas, the LOD was set at a minimum 50-foot offset from the edge of the SWM BMPs. The LOD was extended from the outfall area of the SWM BMP facility to the receiving watercourse. In some areas, where the SWM BMP facilities were located farther away from the cut or fill slopes, the LOD was set 50 feet from the roadway to the SWM BMPs to provide access for construction and maintenance of the SWM BMP facility. In a few areas, the LOD was shortened to limit the impacts to existing buildings and/or local roads.

Initially, the LOD was set at the structures (culverts, bridges and retaining walls) at a minimum 100-foot offset from the edge of the parapet/roadway. The 100-foot offset would continue for a minimum of 50 feet past the abutments. Some of the proposed structures are located within existing steep hillsides and deep ravines-such as the Piney Creek Valley (occurs with all the remaining alignments). To provide adequate construction access for the contractor, the LOD was adjusted to incorporate additional sections that would allow access to local roads from the proposed alignments.

The study accounted for potential LOD impacts for Alignments D, E, E-Shift and AE. Only facilities that will have a large footprint, and increase the limit of disturbance were considered at this stage. During subsequent design efforts, sub-drainage areas would be broken out into smaller catchment areas, using other SWM BMPs, such as micro-bioretentions, bioswales or submerged gravel wetlands. The proposed median would



potentially be used for other SWM BMPs; however these SWM BMPs were not investigated at this time.

4. Economic Data

a. Regional Economic Analyses Summary

The regional economic analysis (*US 219 Preliminary Economic Impact Analysis*, February 2016; **Appendix B – Preliminary Economic Analysis Summary and Reports**) evaluated demand side benefits, external benefits, supply side benefit, benefit-cost ratio and direct, indirect and induced effects that a proposed new, limited four-lane access roadway from I-68 to Meyersdale, PA would provide to the region. Results of these analyses concluded that the proposed corridor would potentially result in approximately \$121 million in consumer surplus; realized accident benefits, emission savings, and noise benefits to the value of \$234 million; 23,017 long term person years of work or the equivalent of 658 permanent jobs per year in Somerset County and Garrett County as a result of improved accessibility; a \$77 million personal income increase for existing jobs, in addition to \$598 million associated with newly created jobs, for a total of \$675 million in potential income benefits. It is also anticipated that there would be a \$43 million increase in residential property value as a result of increased property development potential. The total expected project life tax benefits would be \$100.8 million in federal taxes, \$25.4 million in state and local taxes, and \$5.3 million in property taxes (a total of approximately \$132 million). The analyses also concluded that there would also be a realized productivity benefit and an economic benefit that would outweigh any construction costs.

b. Local Economic Data

The local economic benefits associated with construction of Alignments E and E-shift (to the east) or Alignments D and AE (to the west) of the proposed CRDC were developed by the Garrett County Department of Planning and Land Management and the Garrett County Department of Economic Development (*Economic Impact of US Route 219 Alignments on Chestnut Ridge Development*, March 2016; **Appendix B**). This economic impact analysis measured the contributions of economic units anticipated with the commercial and industrial development of the proposed Chestnut Ridge Development (shown in **Figure 2-2** in **Chapter 2**) as the creation of additional output, earnings and employment within Garrett County.

Estimates were developed using the IMPLAN input-output model to trace the flow of goods/services, income and employment among related economic sectors. IMPLAN is the most widely used software for input/output models and is frequently used by government agencies to make economic forecasts. The IMPLAN model results for Garrett County are included in the Step 3 Screening as shown in **Table 7-1** on page 7 and in **Appendix B, Table 7-3**.



Under Alignments E and E-Shift, it is anticipated that 480 warehousing and storage jobs and 120 miscellaneous manufacturing jobs would be created at the proposed Garrett County Employment Center. In addition, there would be an investment of \$24 million in construction of non-residential buildings resulting in 155 construction jobs.

Under Alignments D and AE, it is anticipated that 264 warehousing and storage jobs and 66 miscellaneous manufacturing jobs would be created at the proposed Garrett County Employment Center. In addition, there would be an investment of \$13.2 million in construction of non-residential buildings resulting in 151 construction jobs. Since these two western alignments pass through the Garrett County Employment Center, they result in a reduced economic benefit when compared to the eastern alignments.

5. PEL Study Outreach

a. Public Input

A Public Information Workshop was held on January 6, 2016. The purpose of the meeting was to provide a PEL study overview and status update, and to obtain feedback on the PEL's study vision, goals, needs, and study alignments.

One hundred and sixty-two people registered at the Public Information Workshop at Grantsville Elementary in Grantsville, MD. The majority of the attendees were from the study area; while others were from Garrett County, Maryland and Somerset County, Pennsylvania. Attendees were encouraged to visit the display stations, and talk with project team members who were located throughout the display station areas. The informational display stations included:

- Introduction to the PEL Study;
- Key Features (including environmental, engineering and traffic);
- Alignments Under Consideration (Alignments D, E, E-Shift, and AE were highlighted; however, the mapping depicted all alignments²² that were included in Steps 1 and 2 alignment screenings);
- Community Advisory Committee (CAC) Activity;
- Project Website Information; and
- Study Schedule.

After reviewing the informational display stations, attendees were asked to complete a Comment Form to offer their thoughts on the information presented. The informational displays and Comment Form were also made available on the study's website for additional feedback and input, following the meeting. A brief summary of the

²² The public has been afforded the opportunity at the most recent public meeting (January 6, 2016) and at previous meetings held during the former NEPA efforts to review and provide input on all of the alignments that are under consideration in this PEL study.



comments received from the Comment Forms collected at the information workshop is as follows (a more detailed summary of this information is provided in **Appendix C – Comment Form Summary**).

Public Input on PEL Vision, Goals, Objectives, Needs, and Performance Measures

- 69% (27 out of 39) strongly agreed or agreed with the PEL’s Vision (another 12% had no opinion).
- 77% (30 out of 39) strongly agreed or agreed with the Regional and Local Economic Goals, Objectives, Needs, and Performance Measures (another 12% had no opinion).
- 74% (29 out of 39) strongly agreed or agreed with the Mobility Goals, Objectives, Needs, and Performance Measures (another 12% had no opinion).
- 77% (30 out of 39) strongly agreed or agreed with the Safety Goals, Objectives, Needs, and Performance Measures (another 12% had no opinion).

Public Ranking of the Alignments under Consideration (Alignment D, E, E-Shift, and AE)

Meeting attendees were asked to rate Alignments D, E, E-Shift, and AE based on numeric values, with “1” being the least favored and “5” being the most favored. The key benefit of this process is that it produces quantitative information to help support decision-making. The overall ratings on the Comment Forms (total of 45 received) were then combined to produce a cumulative ranking for each alignment. As follows, and presented in order of most favored to least favored alignment:

- Alignment E – 3.79 out of a possible 5
- Alignment E-Shift – 3.76 out of a possible 5
- Alignment AE – 2.48 out of a possible 5
- Alignment D – **1.22** out of a possible 5

These ranking affirms and corroborates that Alignments D and AE are the public’s least favored alignments, and Alignments E and E-Shift are the most favored alignments.

Additional Public Input

In the spring of 2016, Salisbury Borough provided a letter dated April 16, 2016, (see **Appendix D – General Correspondence**), requesting that an access ramp be considered during future project planning. The letter does not specify an alignment; only that the Borough would appreciate consideration of a ramp to serve the community. Options for this ramp would be considered during the NEPA project development process.

A summary of the additional public input, and general comments, gathered from the study’s website are as follows:



- 54% (14 of 26) of respondents had no particular concerns regarding any alignments.
- Of the 46% (12 of 26) with concerns regarding an alignment, specific concerns were:
 - A strong dislike for Alignment D (4 out of 12);
 - Strong support for Alignment E and E-Shift (5 out of 12); and
 - Some support for the No-Build (no need for the project) (1 out of 12).
- General comments:
 - Four people supported Alignment E;
 - Six people said to just build the project and four said the process is taking too long;
 - Three people expressed concerns related to Productive Agricultural Land impacts (PAL).
 - Three people said to use the strip-mined areas within the Little Meadows Historic Site (note that this would be a Section 106 effect and a Section 4(f) use during NEPA project studies).
 - Three people stated that there is a need to better maintain existing US 219 in Pennsylvania.

Public Input Summary

The public input shows support for moving forward with an improvement in the study area.

As stated, Salisbury Borough requested an access ramp be considered during future project planning. However, through the public involvement, the general public did not show support for Alignment D, which is the only alignment that included local access within close proximity to Salisbury Borough, Pennsylvania. At the January 2016 Information Workshop, 85% of respondents (23 out of the 27 that provided a rank for Alignment D) ranked Alignment D as their least favored alignment (with a score of 1 being least favored). No one (0 out of 27) ranked Alignment D as the most favored (with a score of 5 for most favored). Three out of the 27 ranked it as a 2 (bottom ranking) and one ranked it as a 4 (more favored). (Discrepancies in the total number of responses are due to citizens not responding to the entire Comment Form.) The public's comments were in favor of Alignments E and/or E Shift.

b. Environmental Resource Agency Input

The following bullets summarize the relevant input provided by the environmental resource agencies at the US 219 PEL IRM and ACM meetings (see Chapter 5), and at the July 15, 2015 meeting with PA DEP and Salisbury Borough, Pennsylvania, that was held to discuss potential project impacts to Findley Spring. Note that much of the discussion at these meetings centered on obtaining a better understanding of the PEL



process and was not specific study input. The following are comments made by the agency members:

- Provide a discussion on Acid Bearing Rock (see **Chapters 4**), and the potential for karst topography to be included in the PEL document.
 - Based on maps from the Pennsylvania Department of Conservation and Natural Resources²³, and the Maryland Geological Survey²⁴, there does not appear to be extensive karst topography (limestone, dolomite, and gypsum) in the study area. Some small areas within the study area may be underlain with flat-lying, generally thin limestone beds, which are commonly interbedded with shale. However, this is not anticipated to affect SWM.
- Include the total acreage of earth disturbance (limit of disturbance) in a table (see Table 6-2).
- Provide project costs estimates (see Table 7-1).
- Provide a discussion on stormwater management, including potential thermal impacts, in the analysis (see **Chapter 7, Section 3**).
 - Thermal impacts and BMP outfall locations were investigated, as requested by the environmental agencies (See **Appendix E – Preliminary SWM Analysis**). Thermal impacts for the study are categorized as predominately medium to low. Throughout the study corridor, no exceptional value or high quality drainage areas were designated, therefore, there were no potential for high thermal impacts or riparian buffer requirements. It was assumed any thermal impacts to SWM BMPs outletting to cold water fishes streams would have a moderate impact, unless shade-promoting landscaping in and around the SWM BMPs are provided. In addition, thermal impacts to the SWM BMPs or POIs outletting to warm water fishes, for streams with or without designation, were determined to be low.
- PA DEP concluded that Alignments E, E-Shift, AE and D are not anticipated to have an impact on Findley Spring.
- Update the threatened and endangered species coordination.
- This was updated in 2014 and will occur again in future NEPA projects.
- Ensure that information from the previous NEPA project studies not be lost.
 - Technical documents have been prepared and included in the study file to document the previous data and analyses. These studies will be available on the project ftp site <ftp://us219:agencies@ftp.mccormicktaylor.com/> and a list provided in an appendix of this document.

²³ PA DCNR map of *Limestone & Dolomite Distributions in Pennsylvania*.

²⁴ MDGS, *Garrett County Detail Geologic Map*

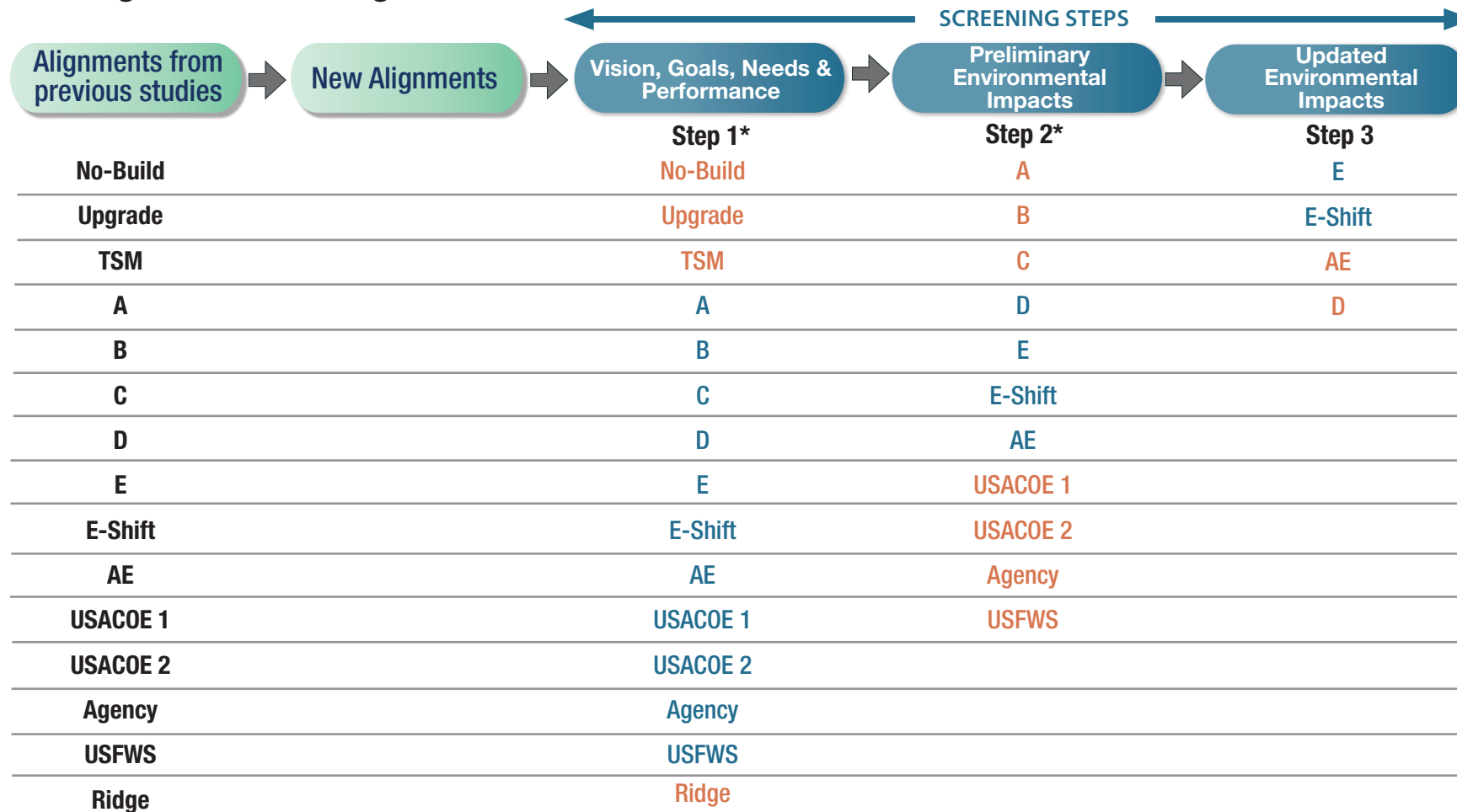


6. Step 3 Alignment Screening

Table 7-1 presents the Step 3 assessment of impacts to the natural, socio-economic and cultural environments from the revised LOD for Alignments AE, D, E, and E-Shift (See **Figure 7-2, Step 3 Alignments**). This table also provides information on general engineering considerations such as estimated earthwork quantities, and costs, as requested by the environmental agencies. The alignments are currently using 2:1 cut slopes. It should be noted that during subsequent engineering efforts, the earthwork quantities and stormwater management locations would be refined using data from future geotechnical investigations.

Planning & Environmental Linkages

PEL Alignment Screening Process Results



Westerly

Westerly

Considered reasonable at this step
Considered unreasonable at this step

* See Chapter 6

Figure 7-2
PEL Alignment Screening Process Results

US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



**Table 7-1
Step 3 - Detailed Environmental, Economic and Cultural Screening with Expanded LOD**

Alignment: (Based the expanded limit of disturbance for preliminary SWM)		E		E-Shift		AE		D		Data Sources
		Loop	Flyover	Loop	Flyover	Loop	Flyover	Loop	Flyover	
Socioeconomic Resources	Interchange Type:									
	Residential Displacements (#)	13	11	11	9	13	14	17	17	County Tax Maps, Field Views, Aerial Photography
	Commercial Displacements (#)	2	2	2	2	2	2	2	2	
	Community Facilities (#)	0	0	0	0	0	0	0	0	
	Garrett County Employment Center (Yes / No)	No	No	No	No	Yes	Yes	Yes	Yes	Garrett County, MD
	Total Economic Effects (local) ¹	\$142,787,877		\$142,787,877		\$78,533,332		\$78,533,332		IMPLAN 2016 model report
	Total Jobs (local)	1,143		1,143		629		629		
Increased Tax Base ² (local)	\$24,000,000		\$24,000,000		\$13,200,000		\$13,200,000			
Natural Resources	Forestland (ac.)	452	408	453	410	468	450	626	603	NLCD 2015
	# of potential bat hibernacula directly impacted	0	0	0	0	0	0	3	3	2005 and 2014 hibernacula surveys
	Pennsylvania Productive Agriculture (ac.) / # farms rendered not viable	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	120 / 2	120 / 2	NLCD 2015 / 2003 farmer interviews
	Maryland	54 / 0	66 / 0	56 / 0	68 / 0	17 / 0	18 / 0	2 / 0	3 / 0	
	DELINEATED / NWI Wetlands (ac.)	6	7	6	7	14	11	12	9	2014 Delineations, supplemented with 2015 NWI ³
DELINEATED / NHD Streams (LF)	30,598	36,203	30,367	35,972	35,081	31,653	43,328	39,472	2014 Delineations, supplemented with 2015 NHD ³	
Historic Resources	Tomlinson Inn / Little Meadows (ac.)	105	111	109	115	2	5	2	5	2005/2006 Section 106 Determinations Made During Former NEPA efforts
	Braddock's Road (LF)	0	0	0	0	916	731	865	535	
	Lowry Farm (ac.)	0	0	0	0	0	0	12	12	
	National Road (LF)	371	467	371	467	674	674	649	486	
	Miller Farm (ac.)	0	0	0	0	0	0	0	0	
Archaeological Resources	Pre-Historic Potential - High (ac.)	33	32	33	32	38	41	45	43	2004 Archaeological Predictive Model Created During Former NEPA efforts
	Pre-Historic Potential - Moderate (ac.)	369	346	365	342	348	338	563	553	
	Historic Potential (ac.)	0	1	0	1	0	0	2	2	
Engineering	Amount of Cut (million cy)	8		8		6		16		GIS (AECOM)
	Amount of Fill (million cy)	4		8		4		6		
	Earthwork Balance (cut - fill in million cy) - All Waste	4		4		2		10		
	Construction Cost (2015 \$ in millions) ⁴	\$340 to \$350		\$330 to \$340		\$350 to \$360		\$470 to \$480		Preliminary Engineering Estimate(AECOM)
Shading Key:		Low Impact								
		Moderate Impact								
		High Impact								

¹ Direct Effects are effects only seen in the immediate industry; Indirect Effects are effects seen in personal income and spending on a household level

² Non-residential buildings

³ The 2014 delineations, conducted as part of the former NEPA project studies, did not cover the entire wider LOD developed for this stormwater analysis; therefore, supplemental data was necessary

⁴ Construction Costs include department share only utility costs, estimated ROW, 10% inspection, 25% contingency. Does not include any design costs.



Alignment D

Alignment D has the greatest potential for impacts to the environment; offers the least economic benefit; requires the largest amount of earthwork; and is the most costly alignment to build. Specifically, Alignment D would have the:

- Greatest residential displacements;
- Most impact to the Garrett County Employment Center, a location for the CRDC and the Casselman Farm Development in Maryland (similar to Alignment AE). This is counter to the intent of the ADHS to improve economic opportunities in the region;
 - Impacts to the economic development of Garrett County are too high:
 - 55% fewer jobs (270 fewer jobs) than Alignments E/E-Shift
 - \$10.8 million less invested in non-residential buildings (tax base) than Alignment E/E shift
 - Over \$64 million less economic benefits from the proposed development than with Alignments E/E-Shift
- Most forestland impacts;
- Most impact to productive agriculture (only alignment to impact productive agriculture in Pennsylvania);
- Most impact to delineated streams;
 - Section 404(b)(1) of the Clean Water Act requires that for an action to be permissible, the applicant must prove that the selected alignment is the least environmentally damaging practicable alignment.
- Directly impacts three bat hibernacula;
- Greatest impact to historic Braddock's Road and the National Road (the same as Alignment AE);
- Greatest impact to historic Lowry Farm (the only remaining alignment to impact the historic Lowry Farm);
- Largest high and moderate pre-historic archaeological impact potential;
- Largest historic archaeological impact potential;
- Greatest amount of earthwork (almost 10 million cubic yards of waste – most of which would end up as excess material that would be disposed of offsite); and
- Highest costs.

Alignment D does provide advantages for some resources when compared to the remaining alignments; these include:

- Having the least impacts to the Tomlinson Inn/Little Meadows Historic Site and Miller Farm;
- Causing medium impact to the National Road and to delineated wetlands; and
- Alignment D offers a local access interchange at Salisbury, Pennsylvania.



Several of the issues listed above were identified as major issues. Alignment D would result in the highest impact to productive agricultural land (PAL). Furthermore, Alignment D is the only alignment to impact PAL in Pennsylvania, which is protected by state law and subject to Agricultural Lands Condemnation Approval Board (ALCAB) approval. Alignments E, E-Shift and AE avoid agricultural land in Pennsylvania (all agricultural land impacts shown for Alignment E, E-Shift and AE would occur in Maryland).

The Pennsylvania ALCAB is an independent administrative board with approval authority over the condemnation of agricultural lands for certain types of transportation projects, including all projects on new location. According to the Pennsylvania Act of 1979-100, "ALCAB [will] grant approval of condemnation if no reasonable and prudent alternative exists for the use of the agricultural land for the project."

ALCAB is typically consulted during the Right-of-Way process or earlier during NEPA projects, in order to gain approval to condemn PALs. As shown on **Table 7-2**, Alignment D impacts 120 acres of PAL in Pennsylvania. Additionally, based on farm operator interviews conducted during the previous NEPA project studies, this alignment would result in two farms (Milroy Farms/Blocher Operation and the Pope Operation) no longer being viable. Since the other remaining alignments do not impact any PAL in Pennsylvania, ALCAB approval would be more challenging for Alignment D. Alignments E, E-Shift, and AE would be reasonable and prudent modal alignment options in Pennsylvania, and will avoid any potential condemnation of a PAL; thereby reducing the likelihood of Alignment D's selection as the preferred alignment for subsequent NEPA project study.

Potential new location projects in this rural region are often a balance of impacts to farmland and forested areas. Forested areas in this region are commonly identified as potential habitat for threatened and endangered bat species. During the 2005 and 2014 Bat studies three bat hibernacula were identified that would be directly impacted by Alignment D. Sites 2005-19, 2005-27 and 2005-28 would be directly impacted by Alignment D (*mapping of the locations of these sites has not been included in this public document in order to protect the sites*). During the 2005 studies, two little brown bats and two eastern pipistrelle bats were captured at site 2005-19; and two eastern pipistrelle (total of four) were captured at each of the two other sites. During the fall 2014 harp net surveys, no bats were captured at sites 2005-19 and 2005-27; however two northern long eared bats (federally threatened species) were captured at Site 2005-28. Per the bat surveys²⁵ completed in the study area, all three of these sites contain habitat suitable for a hibernacula. In addition to the direct hibernacula impacts, Alignment D would result in the highest forest impacts, which are potential summer

²⁵ *Abandoned Mine Investigations for the U.S. 6219, Section 019, Highway Improvement Project (August 27 – October 1, 2005 and 2014 Rt. 219 Fall Bat Harp Trapping and Abandoned Mine/Rocky Habitat Assessment (October 2 – 12, 2014)*; both prepared by Bat Conservation and Management, Inc.



roosting habitat for these bats. Although none were captured during field investigations, the study area is also within the known range of the federally endangered Indiana bat. Alignments, E, E-Shift, and AE do not have a direct impact on any bat hibernacula and have lower forestland impacts.

Alignment D is one of two alignments that would impact the Garrett County Employment Center, leaving less of the CRDC for development. The losses in jobs, county tax base, and economic benefits from this alignment are substantial.

As described above, Alignment D is the only alignment that would directly impact a known hibernacula (federally threatened northern long-eared bat) and is the only alignment that impacts PAL in Pennsylvania, which would require approval by ALCAB to condemn those farmlands. Since Alignments AE, E and E-shift do not impact PAL, it would not be possible to demonstrate to ALCAB that no other reasonable and prudent modal alignment options exist. Additionally, Alignment D, by bisecting the Garrett County Employment Center in Maryland, has substantial impacts to the anticipated jobs, county tax base, and economic benefits of the proposed Garrett County Employment Center. The fatal flaw of this alignment are the impacts to the threatened bat species and to PAL in Pennsylvania. Furthermore, this alignment would not be recommended for advancement due to its impacts to the Garrett County Employment Center in Maryland. *Therefore, Alignment D is considered an unreasonable alignment and will not be recommended to be advanced into a subsequent NEPA project phase.*

Alignment AE

Table 7-1 also illustrates that Alignment AE would have a slightly greater potential for overall environmental impacts than Alignment E and E-Shift. However, Alignment AE has the same unfavorable economic impacts as Alignment D. Specifically, Alignment AE would, when compared to Alignment E and E-Shift, have:

- More residential impacts (second greatest to Alignment D), including up to five additional residential displacements in this small town/rural area;
- Most impact to the Garrett County Employment Center (in Maryland) (the same as Alignment D):
 - 55 % (270) fewer jobs than Alignments E/E-Shift
 - \$10.8 million less invested in non-residential buildings (tax base) than Alignment E/E-Shift
 - Over \$64 million less economic benefits from the proposed development than with Alignments E/E-Shift
- More forestland impacts (second greatest when compared to Alignment D);
- The largest impact to delineated wetlands; twice the wetland impacts of Alignment E/E-Shift



- 11 to 14 acres of wetland impacts vs. 6 to 7 acres with Alignments E/E-Shift

Maryland Department of the Environment and the US Army Corp of Engineers are concerned about Alignment AE's impact on regulated resources under the least environmentally damaging practicable definition of Section 404(b)(1) of the Clean Water Act

- Greatest impact to historic Braddock's Road;
- Greatest impact to historic National Road;
- Higher potential for pre-historic and historic archaeological impacts (second highest when compared to Alignment D); and
- Higher costs (second highest when compared to Alignment D); additional \$10-20 million to construct when compared to Alignment E/E-Shift

Alignment AE does provide advantages for some resources when compared to the remaining alignments, these include:

- Least impact to agricultural land, and
- Least impact to the Tomlinson Inn/Little Meadows Historic Site.

Since Alignment AE overlaps Alignments E and E-shift for most of its length in Pennsylvania, the majority of its unique impacts occur in Maryland. Specifically, Alignment AE, similar to Alignment D, would impact the Garrett County Employment Center, an area that is part of the proposed CRDC and is proposed to contain the Casselman Farm development. Alignment AE would bisect the property, leaving less of it for development. The losses in jobs, county tax base, and economic benefits from this alignment are substantial.

Alignment AE has less public support than Alignment E and E-Shift, would cost the most of the three alignments to construct, and have greater potential for social and environmental impacts, especially to residences (as displacements), delineated wetlands, forestland, Braddock's Road, and the National Road.

As described above, the impacts to delineated wetlands are almost twice those from Alignments E and E-Shift. For this reason, it may not be possible to demonstrate to the two water resource permitting agencies that no other reasonable and prudent modal alignments exist. In addition, Alignment AE bisects the Garrett County Employment Center which has substantial impacts to the anticipated jobs, county tax base, and economic benefits of the proposed Employment Center. This alignment would not be recommended for advancement due to its impacts to the regulated resources and to the Garrett County Employment Center in Maryland. *Therefore, Alignment AE is considered an unreasonable alignment and will not be recommended to be advanced into a subsequent NEPA project phase.*



Alignment E

Alignments E and E-Shift compare similarly with regard to environmental impacts. However, Alignment E has less potential for impact to the Tomlinson Inn / Little Meadows, than Alignment E-Shift. Alignment E is closest to residents along Old Salisbury Road; however, no residences along Old Salisbury Road are displaced by Alignment E.

Alignments E, and E-Shift, avoid the Garrett County Employment Center, thereby increasing the County tax base by \$10.8 million, producing an additional \$64 million in benefits, and another 270 jobs when compared to Alignments D and AE.

Alignment E is the most publicly favored alignment. Based on the environmental, socio-economic and cultural screening analysis, Alignment E (similar to Alignment E-Shift) has the least potential for environmental impacts. *Alignment E is a reasonable alignment to advance into a subsequent NEPA project phase.*

Alignment E Shift

Alignment E-Shift was developed to respond to concerns expressed by residents along Old Salisbury Road due to the proximity of Alignment E to their residences. This shift of the alignment further away from residential properties near Old Salisbury Road (Alignment E-Shift) resulted in a greater potential impact to the Tomlinson Inn / Little Meadows and in greater impacts to cropland (Yoder Operation) than Alignment E.

Like Alignment E, Alignment E-Shift has the least overall potential for environmental impacts; avoids the Garrett County Employment Center, thereby increasing the County tax base by \$10.8 million, producing an additional \$64 million in benefits, and another 270 jobs when compared to Alignments D and AE.

Alignment E-Shift is the second most publicly favored alignment. Based on the environmental, socio-economic and cultural screening analysis, *Alignment E-Shift is a reasonable alignment to advance into a subsequent NEPA project phase.*

7. Summary

As shown throughout the PEL study, Alignments E and E-Shift are reasonable alignments to advance into a future NEPA project development process to achieve the socio-economic, environmental, and transportation objectives. Although PEL studies may recommend alignments for implementation or elimination, the final determination regarding elimination and reasonable alternatives is made during the NEPA process.



Chapter 8 – Next Steps and Potential Challenges

1. Future NEPA Project

As indicated within the previous chapter, Alignments E and E-shift are considered reasonable and will be evaluated in future NEPA project analyses. However, while the most economic benefit would be realized by construction of an alignment in its entirety, the different funding levels between states will not currently allow for construction of the entire project from I-68 in Maryland to Meyersdale, Pennsylvania.

In light of the different funding levels, the PEL study also reviewed the possibility of identifying stand-alone projects within the overall limits. Through this review, including the localized economic benefits discussed, a potential stand-alone project was identified between I-68 and the Priority Funding Area (PFA) in Maryland.

a. Stand-Alone, Subsequent, Independent Project Evaluation

Any stand-alone, subsequent project would need to demonstrate independent utility and logical termini to illustrate that a functional transportation system is provided in the absence of constructing the entire alignment.

23 CFR 771.111(f) outlines three general principles to ensure meaningful evaluation of alignments, and to avoid commitments to transportation improvements before they are fully evaluated in an environmental document. The alignments evaluated shall:

1. Connect logical termini and be of sufficient length to address environmental matters on a broad scope;
2. Have independent utility or independent significance (i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made); and
3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

I-68 to North of Old Salisbury Road (Alignments E, E-Shift)

A potential stand-alone project would consist of a new alignment for US 219 along an area of common alignment for Alignment E or Alignment E-Shift. This Concept would extend from I-68 to north of the Old Salisbury Road intersection with existing US 219. The northern intersection is near the northern limit of the CRDC planned by Garrett County to capitalize on the transportation network and utilize existing land use patterns to encourage economic development (**Figure 8-1**).



Figure 8-1
General Stand-Alone Project Concept
US 219
Summit and Elk Lick Townships
Somerset County, Pennsylvania and Garrett County, Maryland



Logical Termini – The endpoints for the Concept satisfies the criteria for logical termini, as the southern terminus at I-68 (Maryland) provides accessibility to and from the Northern Garrett County region, and the northern terminus would tie into existing US 219 in Maryland near the proposed Casselman Farm development within the CRDC. By providing access to the Casselman Farm development, this Concept supports the study goals of contributing to both regional and local economic development, as well as to the long term development goals for the region. This access to the CRDC would be the only at grade intersection along the new US 219. In the future, as remaining portions of US 219 are built to the north, the roadway would be access controlled.

Safety and mobility are key aspects of the PEL study goals. By providing a high speed alternative facility for trucks using existing US 219, this Concept potentially reduces crash rates and improves safety (refer to **Chapter 3 Section 2.c Safety** for crash rates/safety along US 219) while increasing mobility. Therefore, by providing a connection from I-68 to the CRDC, this Concept would provide rational end points for both the transportation improvement and for the assessment of environmental impacts, which is consistent with the FHWA definition for logical termini.

Independent Utility – The CRDC is consistent with the economic growth and development goals for US 219 associated with the ADHS. The mixed use Casselman Farm development is anticipated to reach full build out within five years of construction. Providing access from I-68 to the Casselman Farm development will foster a viable transportation enhancement for years to come, with or without any future roadway extensions or enhancements. Consequently, this Concept represents a stand-alone project that could move forward and provides a project that is consistent with the vision of the PEL study while serving an independent need and utility from an economic development and safety / mobility perspective.

Other transportation improvements – Building this Concept does not restrict future transportation improvements, and it can stand on its own merits should nothing else within the PEL study alignment(s) ever be built. It should be noted that while construction of this Concept would add another link to the ADHS, construction of the remaining portion of the corridor would further support the Appalachian economic development goal of the ADHS plan.

This Concept connects logical termini, has independent utility, is of sufficient length to address environmental matters on a broad scope, and does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements. Based on the Concept's potential to meet the PEL study's vision, goals and objectives as well logical termini criteria, it was determined that this Concept should be moved forward into the NEPA project phase.



b. Potential Issues and Mitigation for Consideration during Future NEPA Project Development Process

Issues that will require further analysis and coordination during the NEPA project development phase in Maryland and Pennsylvania include environmental approvals associated with project impacts to the natural environment (wetlands, streams and floodplains, and threatened and endangered species) and to the social environment (public outreach, noise, cultural resources). A modification to the Biological Opinion for the Indiana and Northern Long-eared bats is anticipated, as is a Section 4(f) evaluation for any cultural resources that are adversely impacted.

Mitigation efforts will be needed to avoid or minimize project impacts to this resource rich area. The largest effort may be associated with assessing and mitigating for impacts to the archeological resources in Maryland since this area has overlapping periods of historical use. In addition to the minimization required through the wetland and waterways permit application, the forested areas are habitat to multiple mammal and bird species and will need minimization strategies. Noise barriers are a mitigation technique that will be investigated for the buildings adjacent to the proposed alignment.

Any future NEPA project will need to assess impacts to several resources that were outside the scope of the PEL study. These include the identification of acid bearing rock formations, updating the hazardous waste analysis, and assessing the indirect and cumulative effects from the proposed project.

2. Conclusion

This PEL study has evaluated the US 219 corridor from Meyersdale to I-68 to determine possible alignments that would best address the vision, goals, objectives and deficiencies of the study area. Fifteen alignments were reviewed for their ability to complete a segment of ADHS Corridor N, generate local and regional economic development, and improve the level of safety and mobility within the corridor. Upon the conclusion of the PEL study analysis, two alignments, E and E-shift, were determined to be reasonable and will be carried into future NEPA project analysis. One potential stand-alone project, from I-68 to north of the Old Salisbury Road in Maryland, was determined to have independent utility and logical termini. Specifically, to address the 23 CFR 771.111(f) three general principles mentioned previously, the stand-alone concept (using either Alignment E or Alignment E-Shift) would:

1. Connect logical termini at I-68 and existing US 219 at the proposed Casselman Farm development, which is part of the CRDC and be of sufficient length to address environmental matters on a broad scope, because the Concept (improvement) would stand on its own as discussed in the following criteria;
2. Have independent utility as the Concept would foster viable transportation access for years to come without any future extensions or enhancements as it serves a known and progressing economic development area and would address



safety concerns from increasing truck traffic in a location already inundated with trucks from the interchange (I-68) and truck stop area that includes surrounding highway related services (fast food restaurants, hotel, etc.); and

3. Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements, as the Concept can stand on its own and has been selected through this PEL study as part of the alignment that best addresses the overall corridor needs and minimizes environmental impacts within the entire corridor from I-68 in Maryland to Meyersdale, Pennsylvania.

It is important to remember that, although PEL studies may recommend alignments for implementation or elimination, the final determination regarding elimination and reasonable alternatives is made during the NEPA process.



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