central Susquehanna Valley transportation project

SOUTHERN SECTION
S.R. 0015, SECTION 088
SNYDER, UNION, AND NORTHUMBERLAND COUNTIES

FARMLAND ASSESSMENT REPORT

PURSUANT TO

COMMONWEALTH OF PENNSYLVANIA ACT 100 OF 1979,
COMMONWEALTH OF PENNSYLVANIA ACT 43 OF 1981 AS AMENDED,
AND
COMMONWEALTH OF PENNSYLVANIA
4 PA CODE CHAPTER 7, § 7.301, et seq.
AGRICULTURAL LAND PRESERVATION POLICY

PREPARED FOR

pennsylvania DEPARTMENT OF TRANSPORTATION

ENGINEERING DISTRICT 3-0

PREPARED BY

SKELLY AND LOY
A Terracon COMPANY

MAY 2020

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ENGINEERING DISTRICT 3-0
715 JORDAN AVENUE
WILLIAMSPORT, PENNSYLVANIA 17754

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MAY 11, 2020

PREFACE

This Farmland Assessment Report (FAR) has been prepared exclusively for proceedings in the Commonwealth of Pennsylvania before the Agricultural Lands Condemnation Approval Board (ALCAB) in accordance with applicable provisions of:

- Section 306 of the Administrative Code of 1929, as amended December 7, 1979, P.L. 478, Act 100, § 1, 71 P.S. § 106;
- Agricultural Area Security Law of 1981, P.L. 128, Act No. 43 § 13, as amended, December 14, 1988, P.L. 1202, Act No. 149, § 1, 3 P.S. § 901 et seq.; and
- Regulations establishing the Commonwealth's Agricultural Land Preservation Policy (ALPP), found at 4 Pa. Code, Chapter 7, § 7.301 et seq.

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EXECUTIVE SUMMARY

The Pennsylvania Department of Transportation (PennDOT) received approval from the Agricultural Lands Condemnation Approval Board (ALCAB) to condemn productive agricultural land originally for the DA Modified Avoidance (DAMA) Alternative and then the DA Modified (DAM) Alternative within the impact footprint for Section 1 of the Central Susquehanna Valley Transportation (CSVT) Project. The first ALCAB hearing was held on March 31, 2005, and the Adjudication and Order was issued on April 22, 2005, for the DAMA Alternative (Appendix A). A second ALCAB hearing was held on May 4, 2006, and the Adjudication and Order was issued on May 8, 2006 for the DAM Alternative (Appendix B).

As PennDOT further designed the project during Final Design, the project needs remained the same but the project design team identified additional specific needs for three focus areas in the Southern Section. The additional specific needs for each focus area, as identified within the Southern Section of S.R. 0015, Section 088, are documented in this Farmland Assessment Report and outlined below:

1. improve constructability of the CSVT Mainline by improving the skew and reducing the deck area of the bridges carrying the DAM Alternative over Mill Road in the Mill/App Road Focus Area;
2. avoid or minimize excavating acid-bearing rock (ABR) in the Acid-Bearing Rock Focus Area; and
3. avoid all impact to ash basins, particularly ash basin structures in the Ash Basin Focus Area.

The Mill/App Road Focus Area's DAM Alternative, as approved by ALCAB, included the DAM crossing Mill Road. Mill Road has a severe skew with respect to the DAM which causes the dual bridges to be designed at a skew. The construction of the bridges on a skew creates significantly more deck area than a 90-degree crossing. As such, a design refinement was completed to reduce the skew of the mainline. This design refinement also included the relocation of Mill Road and Airport Road and the construction of two new roundabouts in the Mill/App Road Focus Area.

During final design, extensive geotechnical studies were undertaken in accordance with PennDOT's Publication 293 – Geotechnical Engineering Manual (2018). Geotechnical borings revealed ABR (rock containing iron sulfide, or pyrite) beneath the DAM Alternative between Attig

Road and Park Road. Preliminary design would have required the excavation of 2 million cubic yards of ABR in the referenced location. Therefore, an avoidance alternative was developed to minimize or completely avoid the identified ABR as defined within the Acid-Bearing Rock Focus Area.

Since the initiation of Final Design in the Southern Section and subsequent geotechnical testing, PennDOT has also determined that the project alignment must be modified between Fisher Road and Sunbury Road to avoid constructing the new highway on the fly ash waste basins. Geotechnical testing performed in 2016 indicated that the fly ash has very little strength. The testing also found that the water levels within the basins have not dropped substantially since the Southern Ash Basin was closed in the late 1990s and the Northern Ash Basin was closed in the late 1980s, as saturated fly ash was encountered within ten feet below the surface of both basins. The consistency of the saturated fly ash is similar to a milkshake; it is a soft, weak, and compressible material that is not capable of supporting the load of a highway without excessive and potentially detrimental settlement and deformation.

PennDOT developed three ash basin avoidance alternatives within the Ash Basin Focus Area established between Fisher Road and Sunbury Road. All three alternatives require the realignment of about two miles of mainline in addition to the PA Route 61 Connector. They have been named based on the corridor in which they are located (see Exhibit 12; p. 37). The Western Alternative, shown in tan, passes west of both ash basins. The Central Alternative, shown in pink, passes between the two ash basins. The Eastern Alternative, shown in green, passes east of both ash basins.

The Eastern Alternative was preferred over the Central and Western Alternatives. From an engineering perspective, the Eastern Alternative would attract more traffic to the PA Route 61 Connector therefore reducing congestion along the U.S. Routes 11/15 strip. From an environmental, agricultural, and social standpoint, the Eastern Alternative is preferred as it results in fewer displacements and has less impacts to productive farmland, agricultural operations, and wetlands.

The ALCAB Preferred Alternative in each focus area would impact productive agricultural land as a result of the final design modifications. As a result, PennDOT is submitting this third application limited to seeking ALCAB approval to condemn, if necessary, the productive agricultural land needed to construct the modifications to the Mill/App Road Focus Area, the Acid-Bearing Rock Focus Area, and the Ash Basin Focus Area within Section 1, Southern Section, of the CSVT Project. PennDOT submits that there is no reasonable and prudent alternative to the permanent conversion of productive agricultural land to construct these modifications.

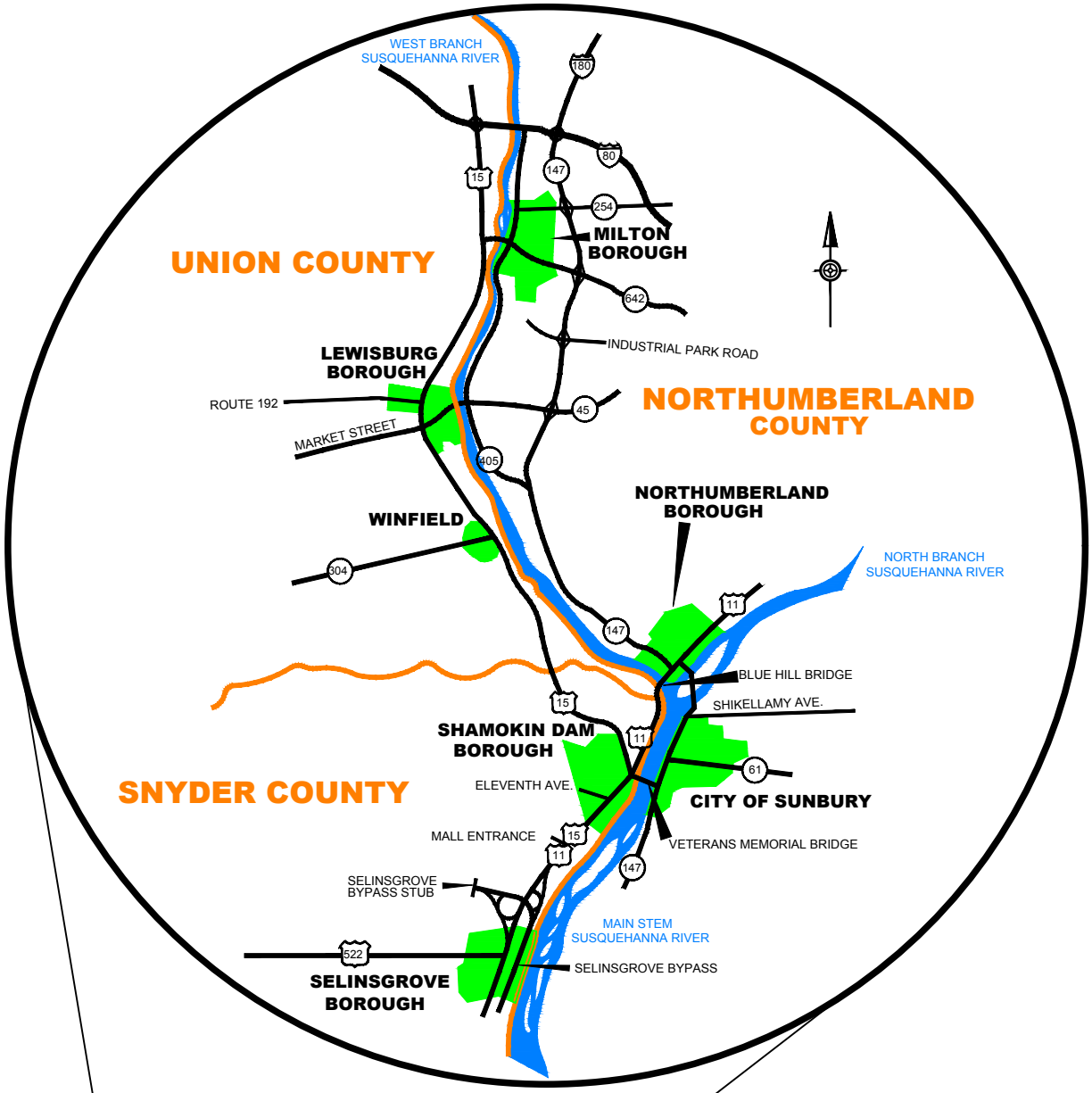
I. INTRODUCTION

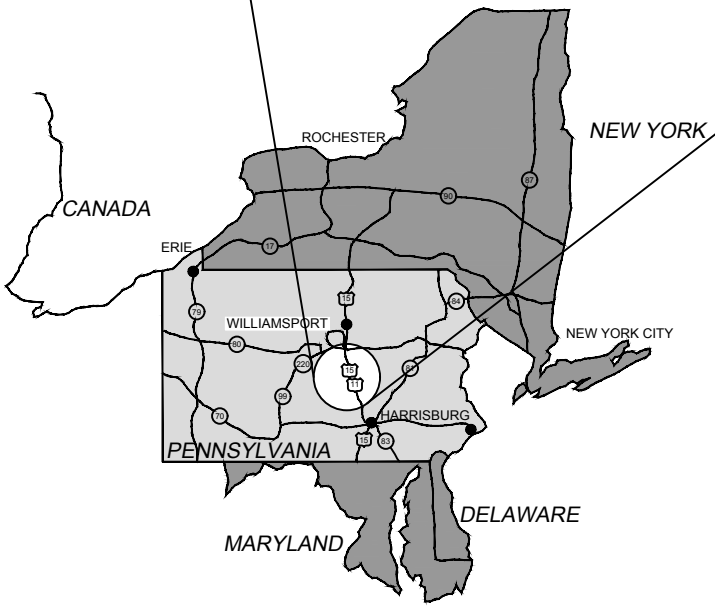
A. PROJECT HISTORY AND LOCATION

The Pennsylvania Department of Transportation Central Susquehanna Valley Transportation (CSVT) Project entails the construction of approximately 12.4 miles of new, limited-access, four-lane highway extending from the existing U.S. Routes 11/15 Interchange in Monroe Township (north of Selinsgrove) in Snyder County to PA Route 147 in West Chillisquaque Township (at a location just south of the PA Route 45 interchange near Montandon) in Northumberland County (Exhibit 1). The new highway includes a connector to PA Route 61 in Shamokin Dam and a new bridge crossing over the West Branch Susquehanna River extending from Union Township, Union County, to Point Township, Northumberland County. The Federal Highway Administration (FHWA) and Pennsylvania Department of Transportation (PennDOT), in cooperation with the U.S. Army Corps of Engineers (USACE), U.S. Environmental Protection Agency (U.S. EPA), and Pennsylvania Department of Environmental Protection (PA DEP), completed a Final Environmental Impact Statement (FEIS) for the project to fulfill the requirements of the National Environmental Policy Act (NEPA) of 1969.

1. CSVT North and South

The overall CSVT Project was split into Section 1 (currently referred to as the Southern Section) and Section 2 (currently referred to as the Northern Section) for the FEIS. Section 1 spans from the existing U.S. Routes 11/15 Interchange near Selinsgrove, north to County Line Road/U.S. Route 15 near Winfield (refer to Exhibit 2). Section 2, currently under construction, encompasses the design north of County Line Road/U.S. Route 15 near Winfield, incorporating the proposed interchange with U.S. Route 15, West Branch Susquehanna River crossing, and connection onto PA Route 147 (refer to Exhibit 2).





Central Susquehanna Valley Transportation Project

EXHIBIT 1

Regional Setting

0 3 6 9

Scale in Miles

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- DAM Approved by ALCAB (5/08/06)
- DAMA Approved by ALCAB (4/22/05)
- River Crossing 5 (RC5) Alternative (Under Construction)
- Southern Interchange Focus Area

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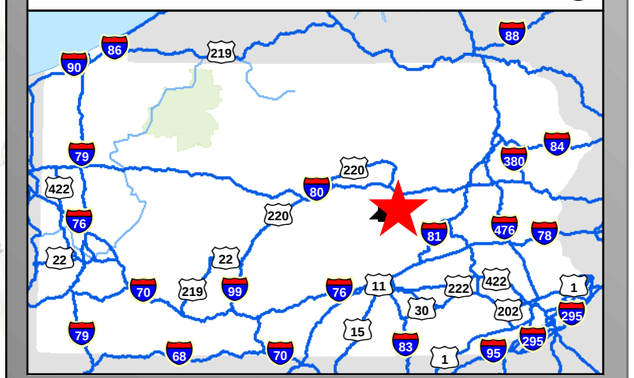
STATE LOCATION MAP



SKELLY and LOY, Inc. | April 2020

PROJECT LOCATION

EXHIBIT 2

PRIOR ALCAB APPROVED ALTERNATIVES

PAGE 5 | Scale: 1" = 4,500'

N

0 1,500 3,000 4,500 Feet

Selinsgrove
US Routes 15 / 522 Interchange
AIRPORT ROAD
APP ATTIG ROAD
MILL ROAD
US11
Monroe Township
PENNS CREEK
KRATZERVILLE ROAD
SAW MILL HOLLOW ROAD
PARK ROAD
FISHER ROAD
STETLER AVE.
PINE LANE
OLD SUSQUEHANNA TRAIL
US15
HOLLOW RUN
COUNTY LINE ROAD
Union Township
WINFIELD CREEK
PA 304
East Buffalo Township
FURNACE ROAD
UNION COUNTY
Lewisburg Boro
PA 405
US15
NORTHUMBERLAND COUNTY
West Chillisquaque Township
HOUSER RUN ROAD
Winfield
Susquehanna River
US Route 15 Interchange
US15
Susquehanna River West Branch
LINE ROAD
SUNBURY ROAD
11TH AVE
Hummels Wharf
SNYDER COUNTY
NORTHUMBERLAND COUNTY
Shamokin Dam Boro
PA 61 Connector
PA 61 Interchange
SNYDER COUNTY
UNION COUNTY
PA147
RIDGE ROAD
Northumberland (PA-147) Interchange
Point Township
Upper Augusta Township
Sunbury
Northumberland Boro

2. ALCAB Proceedings

The initial Farmland Assessment Report (FAR) was prepared in 2005, and ALCAB authorization granting the condemnation of agricultural lands necessary for the construction of the preferred CSVT preliminary design alternative (Alternative DAMA) was issued in the ALCAB Adjudication and Order on April 22, 2005 (Appendix A). The DAMA Alternative was chosen as the ALCAB Preferred Alternative with the following caveat:

> *Should conditions with respect to the historical nature of the App farm change from those currently present at any point prior to the construction of the CSVT Project, the Board encourages PennDOT to re-evaluate the area of impact and re-visit the DAM Alternative as the preferred Section I alternative.*

Following the National Register of Historic Places (NRHP) non-eligibility determination for the Simon P. App farm, a second FAR was prepared in March 2006 identifying the DAM Alternative as the ALCAB Preferred Alternative. The second ALCAB hearing was held May 4, 2006, with the Adjudication and Order issued on May 8, 2006 (Appendix B).

B. PROJECT NEED

The following project needs were originally identified for the CSVT Project:

1. Reduce Congestion and Accommodate Growth;
2. Improve Safety; and
3. Separate Through Traffic from Local Traffic

These needs are the basis for the development of potential alternative solutions to deal with transportation problems in the region.

To effectively meet Need No. 1, a project alternative must reduce peak traffic volumes and future traffic congestion. Additionally, while traffic volumes measure how much traffic flows through the system, another measure of effectiveness is to determine how well that traffic flows in the system. Traffic flow is measured by Level of Service (LOS). LOS is a qualitative measure describing operational conditions within a traffic stream. Six levels of service (A-F) exist. LOS A represents the best operating condition while LOS F represents the worst. What constitutes an acceptable level of service depends on whether a roadway is classified as urban or rural. For this

project, the Southern Section of CSVT, from the Selinsgrove Bypass stub to the U.S. Routes 11/15 split, is considered urban. For urban roadways, the acceptable levels of service range from LOS A to LOS D. Therefore, to effectively meet Need No. 1, a project alternative must reduce congestion and must also improve the resultant level of service or eliminate unacceptable levels of service. The third component to effectively meet Need No. 1 is a mid-point connection with PA Route 61. In a survey of motorists and truck drivers conducted at several locations in the study area in the 1990s and additional studies of traffic movements undertaken in 2017, a significant travel pattern emerged. Thirty-one percent (31%) of all northbound motorists on U.S. Routes 11/15 desire to cross the Susquehanna River to travel to the Sunbury area and the PA Route 61 corridor. This represents the highest single traffic desire in the survey and, as a result, a mid-point connection to PA Route 61 must be a part of any project alternative. Without the PA Route 61 Connector, traffic volumes on the new CSVT highway would drop by 15-20%, future volumes on the existing system (U.S. Routes 11/15) between Selinsgrove and Shamokin Dam would increase by 20-25%, and future volumes on PA Route 147 in Northumberland would increase by 25-30%. Based on updated data, the PA Route 61 Connector will attract 15,000 to 20,000 vehicles per day by 2044. Therefore, the PA Route 61 Connector remains a critical element in addressing project needs by removing that traffic from the existing roadway network.

To effectively meet Need No. 2, a project alternative must improve safety by reducing regional and local travel conflicts, thereby reducing crashes.

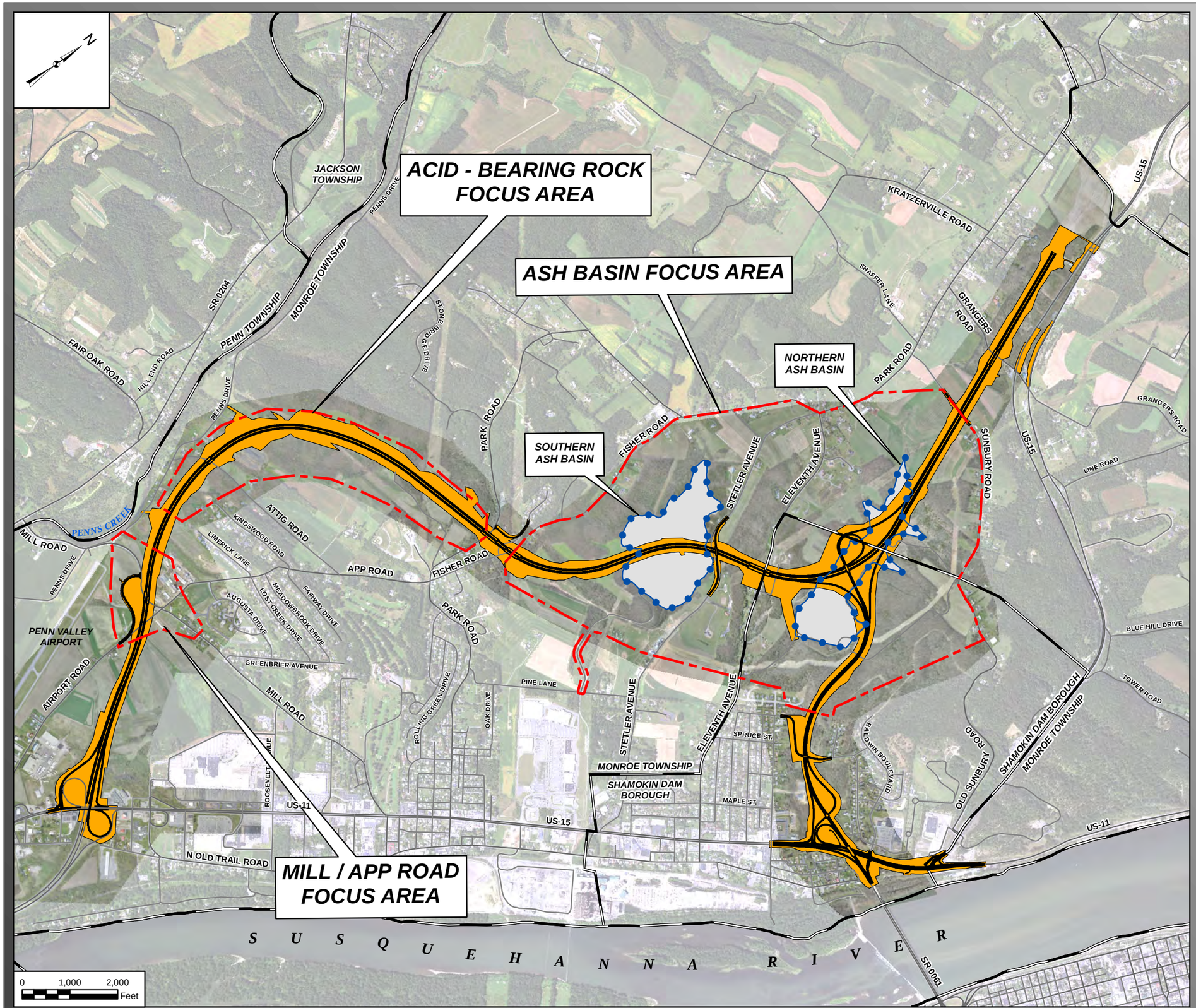
To effectively meet Need No. 3, a project alternative must separate the through and local traffic. It is especially important to remove the through truck traffic from the local roadway.

C. PROJECT NEED – FINAL DESIGN ADDITIONS

As the CSVT Project moved from preliminary design into final design, the project design team identified additional specific final design needs in three separate focus areas. While the needs of the overall project have not changed, the final design needs within these three individual focus areas vary. The three focus areas are outlined below and are shown on Exhibit 3:

- Mill/App Road Focus Area
- Acid-Bearing Rock Focus Area
- Ash Basin Focus Area

Detailed focus area challenges are presented below.



FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- DAM LOD Approved by ALCAB (5/08/06)
- DAM Roadway Approved by ALCAB (5/08/06)
- Ash Basin
- Focus Areas
- Local Roads
- State Roads
- Municipalities

pennsylvania DEPARTMENT OF TRANSPORTATION

SKELLY and LOY, Inc.	March 2020

SOUTHERN SECTION

EXHIBIT 3

FAR FOCUS AREAS

PAGE 8	Scale: 1" = 2,000'

1. Mill/App Road Focus Area

The preliminary design of the DAM Alternative required the CSVT Mainline to cross Mill Road. Mill Road has a severe skew with respect to CSVT, which causes the CSVT bridges to be constructed at a skew (see Exhibit 3). This skew of the bridges on the CSVT Mainline adds significantly more deck than bridges crossing Mill Road at a 90-degree crossing. Building the bridges on this skew is costly and reduces the bridge options that can be considered in this area. Therefore, improving the constructability of the DAM in this focus area by reducing the deck area and improving the skew of the proposed structures has been determined to be a final design need.

2. Acid-Bearing Rock Focus Area

Chapter 10 of PennDOT's Publication 293 entitled Geotechnical Engineering Manual (dated 2018) requires that detailed geotechnical studies be undertaken on alternatives during final design. These detailed studies include borings taken specifically to identify if the alternative being designed impacts ABR. A boring program was conducted on the DAM Alternative during preliminary design. This boring analysis was undertaken in the late 1990s. Moving into final design required a much more rigorous geotechnical boring program that was dictated by the 2018 Geotechnical Engineering Manual. The detailed geotechnical borings performed in 2016 on the DAM Alternative revealed that there is ABR along the DAM Alternative between Attig Road and Park Road (see Exhibit 3). ABR contains iron sulfide, or pyrite. If pyrite is exposed to air and water, there will be a release of acidic water to the environment. If left untreated or uncontrolled, the acidic water will impact aquatic resources and groundwater drinking supplies. The preliminary design of the DAM Alternative required the excavation of approximately 2 million cubic yards of potential ABR. The degree of acid generation from excavated/exposed cut faces cannot be accurately quantified based on borings and testing of rock samples. These tests provide a measure of the potential for acid generation based on the samples collected but cannot account for unsampled locations of pyrite within the host rock formation that may have a higher percentage of sulfur and therefore generate more acid than expected. In addition to the environmental impacts to aquatic life and groundwater, exposed acid-generating material can have long-term damage on highways and structures due to corrosion of concrete and steel and degradation of cut and fill slopes. Acid drainage can be remediated through either an active treatment or a passive treatment system. However, both types of systems are costly to implement and maintain. The preferred mitigation option is to avoid or minimize excavating or exposing acid rock, when

possible, by alignment or grade adjustments. Therefore, avoiding or minimizing ABR excavation has been determined to be a final design need.

3. Ash Basin Focus Area

The preliminary design of the DAM Alternative crossed two inactive fly ash waste basins that were previously utilized by PPL and are currently owned by Talen Energy (which merged with Riverstone Holdings in late 2016). The ash basins are disposal facilities for fly ash generated from the burning of coal at the former coal power plant along the Susquehanna River in Monroe Township. The basins were created decades ago by constructing dams across existing valleys; the fly ash was mixed with water at the plant, creating a slurry, and this slurry was pumped to the basins. There is no lining between the ash and the original ground surface below it. The maximum depth of the fly ash along the DAM Alternative is approximately 100 feet in the Southern Ash Basin and approximately 75 feet in the Northern Ash Basin.

While originally avoided during the initial development of the CSVT Project, potential Southern Section alignments crossing the ash basins were later developed with support from environmental agencies and the public. The new highway was proposed to traverse the ash basins during the development of the FEIS in order to make use of the undeveloped lands and reduce impacts to residences, farmlands, and other resources. Preliminary engineering studies in the late 1990s/early 2000s indicated that construction on the basins was feasible, and the design of the DAM Alternative traversed the basins (see Exhibit 3). At that time, the basins had been closed fairly recently and it was expected that the water level in the basins would fall, allowing construction to be performed on top of mostly dry ash. Furthermore, detailed studies were planned to be completed during final design, which was ultimately delayed by lack of funding.

Following the eventual start of final design, geotechnical studies performed in 2016 identified unexpected conditions in the two ash basins. Specifically, testing indicated that the fly ash had very little strength and the water levels within the basins had not dropped substantially since the Northern Ash Basin was closed in the late 1980s and the Southern Ash Basin was closed in the late 1990s, as saturated fly ash was encountered within ten feet below the surface in both basins. The saturated fly ash has a consistency similar to a milkshake and is a soft, weak, and compressible material that cannot support the weight of a highway without excessive and potentially detrimental settlement and deformation. In addition, based on the updated data, construction of the highway over the ash basins would present a potential risk of groundwater

contamination in nearby wells and aquifers, both during and after construction, since there is no liner between the original ground surface and the fly ash.

Additionally, since 2008, fly ash basins throughout the country have come under increased scrutiny from government regulators due to problems at several unlined ash basins. In December 2008, an ash dam ruptured in Tennessee at the Kingston Fossil Plant owned by the Tennessee Valley Authority (TVA). This dam failure released 1.1 billion gallons of coal fly ash slurry. While no one was injured, the release damaged homes and waterways, killing fish and impacting water quality. This spill prompted the U.S. EPA to take a closer look at its regulations and to reassess risks from coal ash potentially impacting groundwater or the failure of coal ash surface impoundments. The U.S. EPA published the Coal Combustion Residue (CCR) Rule in 2015. This rule established new technical requirements for surface impoundments. As a result, during final design activities in 2016, PA DEP strongly recommended that PennDOT realign the Southern Section, noting major safety concerns regarding construction within the basins which included potential impacts to groundwater and private water supplies, significant stormwater management challenges, and potential adverse impacts to the regulated basin dams (refer to Appendix C). Finally, if the CSVT Project were to be constructed on the ash basins, the Commonwealth of Pennsylvania and its citizens would assume perpetual liability for the basins and their dams.

During the final design engineering studies in the Ash Basin Focus Area, it was determined that the length of the PA Route 61 Connector will also play a role in whether or not the travelling public will use the connector. If the connector is too long, motorists will more likely continue to use the existing roadway network to access PA Route 61. The shorter the connection, motorists will more likely use it, thereby reducing congestion on the existing roadway network, an identified project need. Therefore, avoiding the ash basins and creating the shortest connection for PA Route 61 have been determined to be final design needs.

D. CURRENT PROJECT NEED SUMMARY

In summary, the original project needs are still applicable. Additional project needs were also identified for the CSVT Project during the process of the application of final design principles, final design engineering studies, and ongoing agency coordination. The current project needs are summarized below.

1. Reduce congestion and accommodate growth by:

   - reducing peak traffic congestion and future traffic congestion,
   - improving levels of service or eliminating unacceptable levels of service, and
   - including a connection to PA Route 61 that is short enough to encourage traffic to use it.

2. Improve safety by reducing regional and local travel conflicts, thereby reducing crashes.

3. Separate through traffic, especially through truck traffic, from local traffic.

4. In the Mill/App Road Focus Area, improve constructability by improving the skew and reducing the deck area of the bridges carrying the DAM mainline over Mill Road.

5. In the Acid-Bearing Rock Focus Area, avoid or minimize ABR excavation.

6. In the Ash Basin Focus Area, avoid all impact to ash basins, particularly ash basin dam structures. Additionally, the shortest PA Route 61 Connector will best meet the project need of reducing congestion.

II. FARMLAND ASSESSMENT METHODOLOGY

A. FARMLAND LEGISLATION REVIEW

Both state and federal legislation protects agricultural resources from conversion by state and federal development projects when there is a reasonable and prudent alternative. Below is an example of applicable farmland legislation.

- PA Act 100 of 1979
- PA Act 43 of 1981, as amended, The Agricultural Area Security Law
- 4 Pa Code Chapter 7 § 7.301 et seq., ALPP
- PA Act 515 of 1966, Covenant for Preservation
- PA Act 319 of 1974, Farmland and Forest Land Assessment Act
- 7 U.S.C. § 4201, Farmland Protection Policy Act (FPPA) of 1981, as amended

1. PA Act 100 of 1979

Pennsylvania Act 100 of 1979 established the ALCAB as an independent administrative board with approval authority over the condemnation of productive agricultural land for highway and waste disposal projects. The ALCAB will approve condemnation only if it determines that there is no reasonable and prudent alternative to the permanent conversion of productive agricultural land for highway purposes.

2. PA Act 43 of 1981, Agricultural Area Security Law

Pennsylvania Act 43 enables landowners to propose the creation of Agricultural Security Areas (ASAs) to municipal governments. An ASA must contain a minimum of 250 acres of viable agricultural land. An ASA may be comprised of non-contiguous tracts, but these tracts must be at least ten acres in size.

Upon receiving a proposal to create an ASA, PA Act 43 authorizes the municipal government to establish an agricultural area advisory committee for the purpose of providing expert advice. A municipal government may approve or disapprove the proposal subsequent to a public hearing, during which the recommendation of the county planning commission and the agricultural area advisory committee are considered. If an ASA is created, it is reviewed every seven years, at which time it can be renewed, terminated, or modified, subsequent to a public hearing. An ASA can also be reviewed prior to the end of the seven-year period if 10% of the land within the ASA is converted to non-agricultural development.

PA Act 43 prohibits municipalities from enacting laws or ordinances that would unreasonably restrict farm practices within an ASA. PA Act 43 also established a Commonwealth program to acquire perpetual agricultural conservation easements within ASAs. The State Agricultural Land Preservation Board was created as a departmental board within the Pennsylvania Department of Agriculture to administer the program at the state level. Counties that desire to participate must establish their own agricultural land preservation boards to administer the program at the county level. Easement purchases authorized by Act 43 can be state owned, county owned, or owned jointly by the state and a county.

Under Act 43, an application for ALCAB approval to condemn non-exempt ASA lands in agricultural production must be filed with ALCAB. Approval is granted if it is demonstrated that there is no reasonable and prudent alternative to the permanent conversion of productive agricultural land.

3. 4 Pa Code Chapter 7 § 7.301 et seq., Agricultural Land Preservation Policy

The Commonwealth's ALPP is 4 Pa Code Chapter 7, § 7.301 et seq. This policy outlines agricultural preservation standards that all state agencies must support. The ALPP is intended to protect and preserve the Commonwealth's "prime agricultural land." "Prime agricultural land" is categorized into five priority categories:

- Under ALPP the highest priority protection is assigned to **preserved farmland**. Preserved farmland includes productive agricultural land restricted solely for agricultural use by 1) an agricultural conversation easement or 2) deed restriction.
- Under ALPP the second highest priority protection is assigned to **farmland within ASAs**. The ASA program was created under the PA Act 43 of 1981,

as amended. The farmland is approved as an ASA by local government units after public review and comment.

- Under ALPP the third highest priority protection is assigned to **farmland that is enrolled in preferential tax assessment programs** to encourage open space uses and discourage conversion to other uses. This specifically refers to farmland enrolled in Act 319 of 1974, as amended (Clean and Green), or Act 515 of 1966, as amended.

- Under ALPP the fourth highest priority protection is assigned to farmland that is planned for agricultural use and is subject to effective **Agricultural Zoning**. This directly applies to farmland designated for agricultural use in a comprehensive plan and/or zoning ordinance adopted pursuant to Act 247 of 1968, as amended (the Municipalities Planning Code) that delineates an area of agriculturally valuable soils and existing farms.

- Under ALPP the fifth highest priority protection is assigned to **farmlands with Soil Capability Classes, I, II, III, and IV or farmland classified as unique**. The Soil Capability Classes are identified in the Soil Survey of Snyder County, Pennsylvania, published by the United States Department Agricultural (USDA) Natural Resource Conservation Service (NRCS). Unique farmland is defined as land other than prime farmland that is used for production of specific high-value food and fiber crops, as determined by the Secretary of Agriculture. Unique farmland possesses a special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farm methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables.

"Prime agricultural land" includes lands in one of the five categories, provided the land has been in active agricultural use (not including land use for timber production) for the preceding three years. Section 7.304 requires that ALCAB shall consider ALPP in its review of agricultural lands proposed for condemnation authorized under the Administrative Code of 1929 (PA Act 100) and the Agricultural Area Security Law (PA Act 43).

4. PA Act 515 of 1966, Covenant for Preservation, and PA Act 319 of 1974, Pennsylvania Farmland and Forest Land Assessment Act

PA Act 515 enables Pennsylvania counties to covenant with landowners to preserve land in farm, forest, water supply, or open space by taxing land according to its use value rather than the prevailing market value. The program is voluntary and requires a minimum acreage

enrollment that will remain in the designated land use for a period of ten years. Extensions of the covenant and penalties for violations are included in the law.

The Act, a forerunner to the "Clean and Green" Act, is administered by the Board of County Commissioners. The law does not require the County Commissioners to implement PA Act 515.

5. PA Act 319 of 1974, Farmland and Forest Land Assessment Act

In 1973, Pennsylvania passed a Constitutional Amendment permitting preferential assessment of farmland and forestland. The Pennsylvania Farmland and Forest Land Assessment Act (PA Act 319; the program commonly known as "Clean and Green"), was signed into law in 1974. This Act is designated to preserve farmland, forestland, and open space by taxing land according to its use value rather than the prevailing market value. The program is voluntary and generally requires a minimum of ten acres that will remain in the designated use (agricultural use, agricultural reserve, or forest reserve).

PA Act 319 is administered by the County Assessment Office. The Pennsylvania Department of Agriculture makes rules and regulations governing the Act.

6. 7 U.S.C. § 4201, Farmland Protection Policy Act of 1981

The purpose of the FPPA is to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural use." The Act recognizes the four categories of farmland soils described below. Land does not have to be in active agricultural use for consideration under this program. Certain lands, including those in urban use or planned for urban use, are exempt from this law.

- **Prime Farmland Soils** – This land has the best combination of physical and chemical characteristics for the production of agricultural crops with the fewest management practices and erosion concerns. Prime farmland does not include land in urban development or land used for water storage.
- **Unique Farmland Soils** – Land other than prime farmland that is used for production of specific high-value food and fiber crops.
- **Statewide Important Soils** – Land other than prime or unique farmland that has been designated as being of importance for the production of agricultural crops.
- **Locally Important Soils** – Land other than prime farmland, unique farmland, or farmland of statewide importance which has been designated by

local agencies as containing the best characteristics for the production of agricultural crops.

B. DATA COLLECTION

Data collection for the farmland assessment was performed in two stages: Preliminary Data Collection which consisted of secondary source review and Detailed Data Collection which involved more extensive coordination with stake holders. The methodology for both stages of data collection is presented in the following sections.

1. Preliminary Data Collection

Land within the study area in agricultural production was identified based on current use and use within the past three years. Land being used for agricultural production is defined by PA Act 43 as:

> *"The production for commercial purposes of crops, livestock, and livestock products, including the processing or retail marketing of such crops, livestock, or livestock products if more than 50 percent of such processed or merchandised products are produced by the farm operator."*

Also included are barns and other agricultural buildings, and land lying fallow due to crop rotation. Land that is fallow due to participation in the USDA conservation reserve (Conservation Reserve Program [CRP] or Conservation Reserve Enhance Program [CREP]) or commodity support programs is considered to be land in agricultural production because it generates income in the form of a lease payment (for commercial purposes), although the crops remain unharvested.

The following sources were used to obtain information regarding government programs, tax incentive programs, conservation easement programs, zoning and soil information:

- **Snyder County GIS/Planning Department**
  The Snyder County GIS/Planning Department (as supported by Union County GIS) provided data for properties within ASAs, under Agricultural Conservation Easements and enrolled in tax incentive programs such as Act 319 (Clean and Green).

- **Monroe Township and Shamokin Dam Borough**
  Zoning maps were downloaded from the Monroe Township and Shamokin Dam Borough websites to identify agricultural zoning in the study area.

- **Pennsylvania Department of Agriculture**
  Online databases from the Department of Agriculture were evaluated to obtain general agricultural data for the state, county, and township. This information included the historic patterns of agriculture and most recent agricultural census information pertaining to farm size and production.

- **USDA Natural Resources Conservation Service**
  Web-based soil maps of the project area, along with soil use classifications were obtained from the USDA. This information provided the farmland classifications (Prime, Statewide Important, Unique, Locally Important) and capability classifications (I, II, III, IV) for the agricultural parcels identified in the study area.

Identification of preserved farmland (agricultural conservation easements), ASA, PA Act 515 and PA Act 319 (Farmland and Forest Land Assessment Act, or "Clean and Green") participants, and agricultural zoning, in addition to the capability classes of the soils was required in order to group the various types of land in agricultural production into the priority levels assigned by ALPP.

2. Detailed Data Collection

The detailed data collection phase involved confirming the information obtained during preliminary data collection and conducting site specific inquiries to quantify the impacts of the project on involved farmland resources. Information obtained during this stage was both qualitative and quantitative. The results of the detailed data collection provided the means to assess the impacts to individual operations and develop avoidance and minimization measures.

Detailed data collection involved gathering specific information regarding the characteristics of agricultural resources in the study area and involved the following steps:

- Collect tax parcel data;
- Contact property owners; and
- Interview farm operators.

Owners of affected lands in potential agricultural production were then contacted and interviewed. Agricultural landowners provided verification of property ownership and productivity

status. If productive agricultural land was farmed by an operator(s) rather than the current landowner, the operator was interviewed to assess total impacts to their respective operations.

Interviews with the farmers about the nature of their overall operation and specific farming practices for agricultural properties affected by the alternatives were conducted in person. The interviews were conducted to gather information regarding the existing conditions of the operation, and to determine the impact of the various alternatives on the viability of the operation. A variety of information about the size, type, history, and anticipated future of their agricultural operation was acquired. Information from the interviews was used to refine the delineation of the areas identified as productive agricultural land and to update the project maps accordingly. In addition, this information was used to make various impact determinations (including indirect impacts due to remnant field geometry/size and access considerations) and to comparatively assess the degree of impact upon the operation, including its economic viability.

Interview forms were used to ensure that all necessary information was collected for each operation. A sample interview form is provided in Appendix D. The information collected during the interviews included, but was not limited to the following:

- Operator's farming history
- Operation type (dairy, beef, poultry, crop)
- Overall operation size (owned/leased acres)
- Base of operation
- Commodities produced
- What farm products are sold and where
- Land farmed in study area and outside of study area
- Land owned in operation and leased in operation
- Location of structures, production storage, and equipment
- Location of water supply
- Access routes to farm parcel/fields
- Future plans for operation
- If the farm operation is their sole source of income
- Where farm supplies are purchased
- Areas of cropland, pasture, hayfield, etc.
- Typical production yield

Additional farm operator coordination meetings were completed with the A. W. Heimbach and Sons and Hummel Brothers Farms operations to further define the impact to and economic viability of the operations.

III. ENVIRONMENTAL FEATURES IN FOCUS AREAS

A. FOCUS AREAS

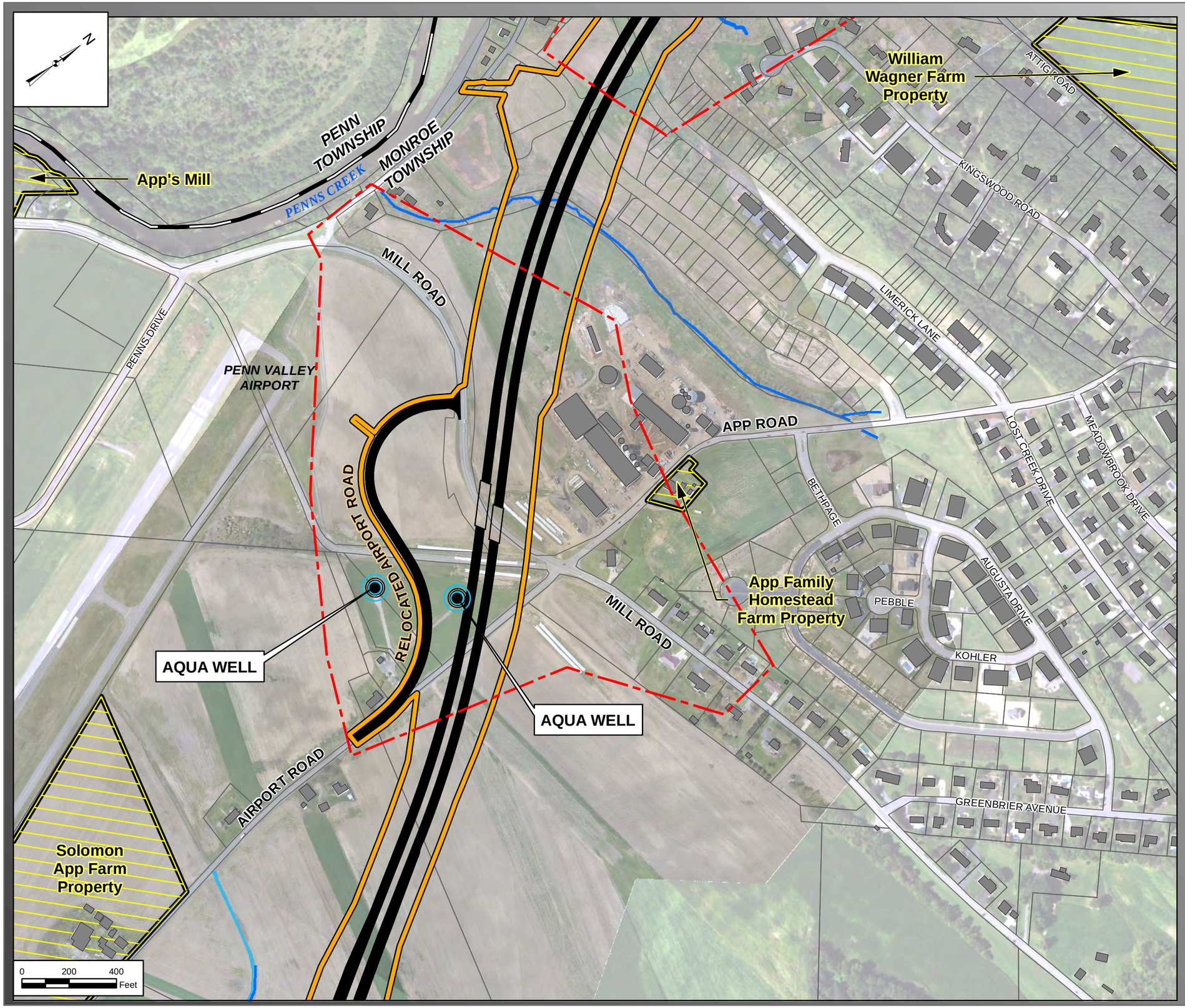
Environmental features were inventoried through the use of existing information sources, reference materials, and field reconnaissance. The natural, cultural, and social environment features helped to guide the development and evaluation of the project alternatives. Detailed exhibits and impacts for agricultural resources are presented later in this report.

1. Mill/App Road Focus Area

The Mill/App Road Focus Area consists of primarily agricultural property owned by the Heimbach Farm Operation. The base of the Heimbach Farm operation is located in the focus area just northwest of the intersection of Mill Road and App Road. The agricultural land is used as cropland as well as storage for feed contained in storage bags. There are no other sensitive natural resources (e.g., wetlands, streams, etc.) located within the focus area other than agricultural resources. The App Family Homestead Farm Property is located north of the focus area, directly across from the Heimbach base of operations along App Road. This farm property has been determined to be eligible for listing on the NRHP. Exhibit 4 outlines the environmental features within the Mill/App Road Focus Area. Exhibit 5 identifies the agricultural resources within the Mill/App Road Focus Area.

2. Acid-Bearing Rock Focus Area

The Acid-Bearing Rock Focus Area is characterized by a rolling hillside with small, relatively narrow stream valleys associated with an unnamed tributary (CHN-020) to Penns Creek. The land cover/land use consists of a mix of forest land, agricultural lands, old fields, residential developments, wetlands, and streams. These small streams support intermittent and ephemeral flow characteristics. The water uses for all of these tributaries are protected for warm water fishes and migratory fishes (WWF, MF) in accordance with PA DEP Chapter 93 Water Quality Regulations. There is a relatively large historic farmstead immediately to the east of the Acid-Bearing Rock Focus Area. This historic farmstead, referred to as the William Wagner Farm



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central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *DAM LOD Approved by ALCAB (5/08/06)*
- *DAM Roadway Approved by ALCAB (5/08/06)*
- *Focus Areas*
- *Municipalities*
- *Historic Resources*
- *Streams*
- *Wetlands*
- *Aqua Well*

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MILL / APP ROAD FOCUS AREA

EXHIBIT 4

ENVIRONMENTAL RESOURCES

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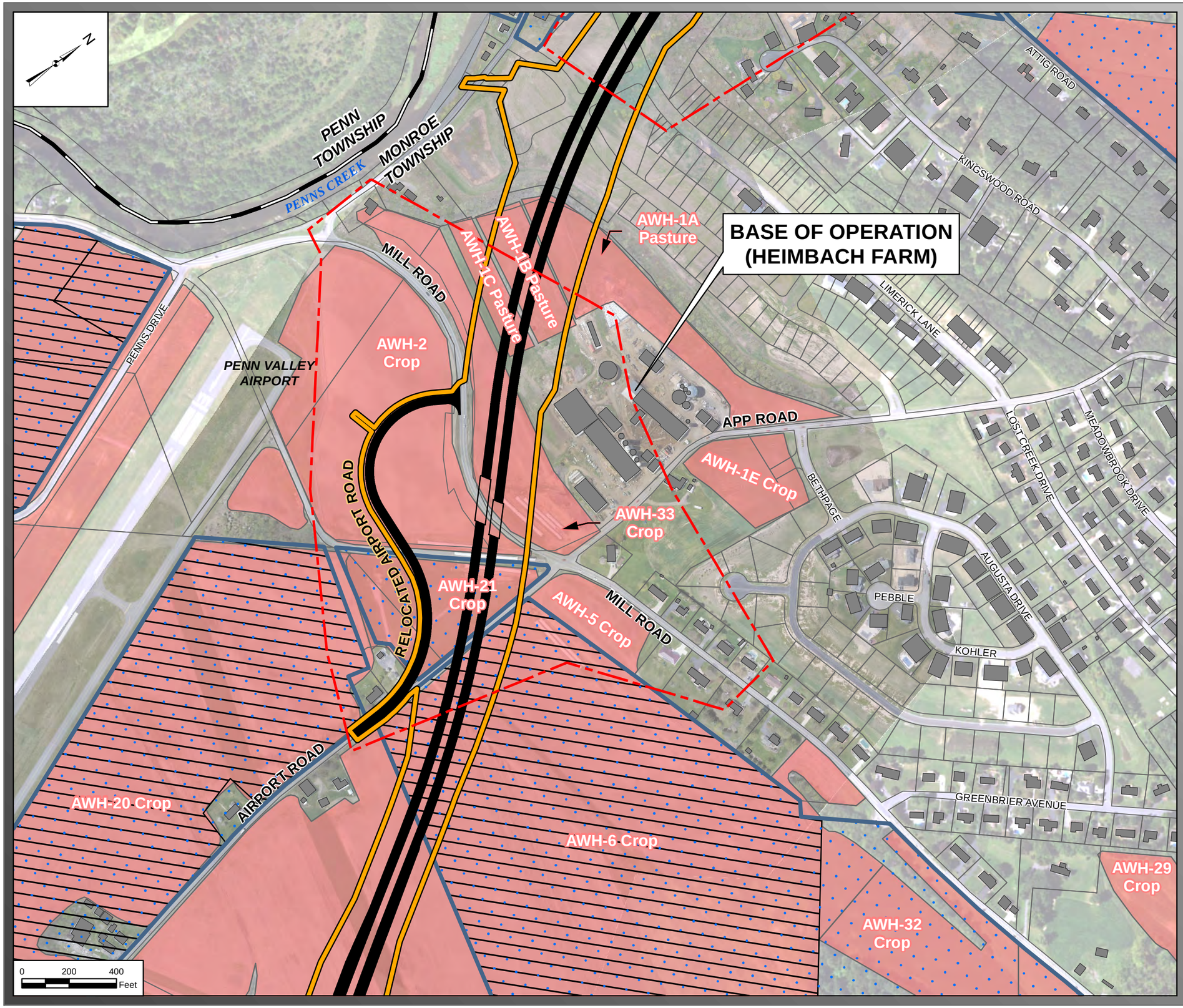

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SR-0015 SECTION 088

LEGEND

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- *Focus Areas*
- *Municipalities*
- *Agricultural Security Areas*
- *Agricultural Zoning*

Productive Farmland Operators

- *Heimbach Farm*

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MILL / APP ROAD FOCUS AREA

EXHIBIT 5

AGRICULTURAL RESOURCES

PAGE 22	Scale: 1" = 400'

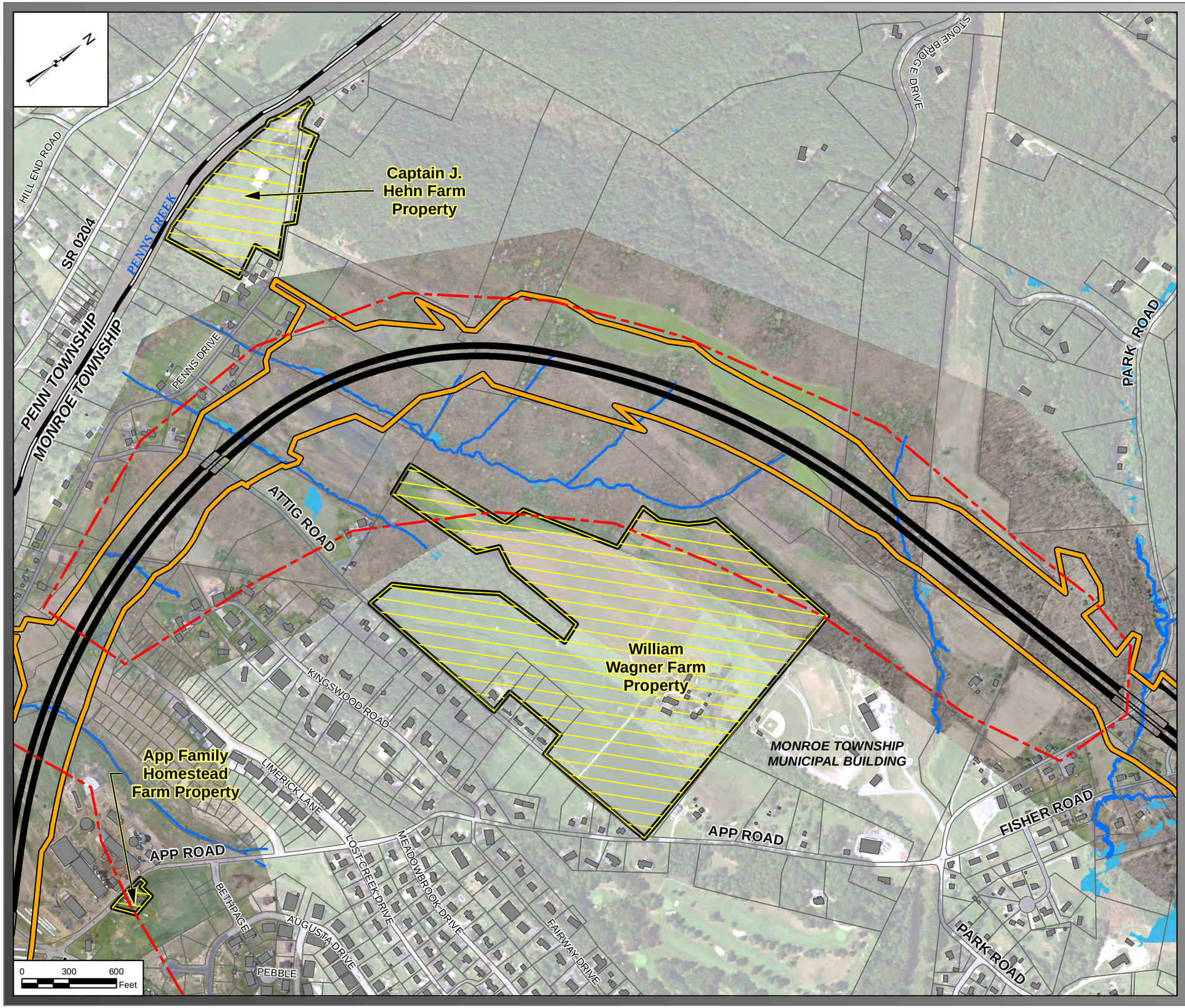
Property, is eligible for listing on the NRHP. The alignment is positioned west of the William Wagner Farm to avoid Section 106 and Section 4(f) impacts (see Exhibit 6). Similar to the Mill/App Road Focus Area, the Heimbach farm operation's productive agricultural fields are located in the Acid-Bearing Rock Focus Area (see Exhibit 7).

3. Ash Basin Focus Area

The Ash Basin Focus Area consists of a diverse mixture of land use/land cover that contains rolling agricultural land, forested land parcels, old fields, single-family residential properties, wetlands, streams, and utility infrastructure including two large Talen ash basins. The focus area extends through the reaches of numerous small tributaries to the Susquehanna River. One church (Susquehanna Valley Baptist Church/Cemetery) is present near the intersection of 11th Avenue and Park Road. No resources listed on or eligible for the NRHP are located within the Ash Basin Focus Area, and there are no known archaeological sites. The environmental resources present in the Ash Basin Focus Area are shown on Exhibit 8. Four farming operations are located within the focus area:

- Hummel Brothers Farm
- Stump Valley Farm
- Godek Farm
- Mike Thomas Operation (subsistence farm)

Several ASAs are located within the Ash Basin Focus Area on land owned and farmed by the Hummel Brothers. The properties farmed by the Godek Farm and Stump Valley Farm are also enrolled in the ASA program. Exhibit 9 highlights the agricultural resources within the Ash Basin Focus Area.



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LEGEND

- *DAM LOD Approved by ALCAB (5/08/06)*
- *DAM Roadway Approved by ALCAB (5/08/06)*
- *Focus Areas*
- *Municipalities*
- *Historic Resources*
- *Streams*
- *Wetlands*

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ACID - BEARING ROCK FOCUS AREA

EXHIBIT 6

ENVIRONMENTAL RESOURCES

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- DAM LOD Approved by ALCAB (5/08/06)
- DAM Roadway Approved by ALCAB (5/08/06)
- Focus Areas
- Municipalities
- Agricultural Security Areas
- Agricultural Zoning

Productive Farmland Operators

- Heimbach Farm

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ACID - BEARING ROCK FOCUS AREA

EXHIBIT 7

AGRICULTURAL RESOURCES

PAGE 25	Scale: 1" = 600'

N

0 300 600 Feet

HILL END ROAD
SR 0204
PENNS CREEK
PENN TOWNSHIP
MONROE TOWNSHIP
PENNS DRIVE
STONE BRIDGE DRIVE
PARK ROAD
ATTIG ROAD
KINGSWOOD ROAD
LIMERICK LANE
LOST CREEK DRIVE
MEADOWBROOK DRIVE
FAIRWAY DRIVE
AUGUSTA DRIVE
BETHPAGE
PEBBLE
APP ROAD
FISHER ROAD
MONROE TOWNSHIP MUNICIPAL BUILDING

BASE OF OPERATION (HEIMBACH FARM)

AWH-18 Crop
AWH-25 Crop
AWH-23 Crop
AWH-22 Crop
AWH-37 Crop
AWH-24 Crop
AWH-1A Pasture
AWH-1B Pasture
AWH-1E Crop
AWH-33 Crop

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- DAM LOD Approved by ALCAB (5/08/06)
- DAM Roadway Approved by ALCAB (5/08/06)
- Focus Areas
- Municipalities
- Historic Resources
- Streams
- Wetlands
- Ash Basin

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ASH BASIN FOCUS AREA

EXHIBIT 8

ENVIRONMENTAL RESOURCES

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- DAM LOD Approved by ALCAB (5/08/06)
- DAM Roadway Approved by ALCAB (5/08/06)
- Focus Areas
- Municipalities
- Agricultural Security Areas
- Agricultural Zoning
- Ash Basin

Productive Farmland Operators

- Godek Farm
- Hummel Brothers Farm
- Stump Valley Farm
- Mike Thomas

BASE OF OPERATION (GODEK FARM)

BASE OF OPERATION (MIKE THOMAS)

BASE OF OPERATION (HUMMEL BROTHERS FARM)

SOUTHERN ASH BASIN

NORTHERN ASH BASIN

SVF-06 Crop
SVF-07 Crop
SVF-08 Crop
SVF-09 Crop
SVF-10 Crop
HBF-18 Crop
HBF-19 Crop
HBF-16 Crop
HBF-15 Crop
HBF-13 Crop
HBF-21 Crop
JGF-01 Pasture
HBF-05 Pasture & Crop
HBF-07 Crop
HBF-08 Crop
HBF-01 Pasture
HBF-02 Pasture
HBF-12 Crop
HBF-03 Crop
HBF-10 Crop
HBF-11 Crop
JGF-02 Crop

TWIN OAKS LANE
BREEZY ACRES LANE
RATHFON ROAD
COLONIAL DRIVE
PINE LANE
PARK ROAD
FISHER ROAD
STETTLER AVENUE
ELEVENTH AVENUE
CROFT VALLEY LANE
SUNBURY ROAD
OLD SUNBURY RD
MONROE TOWNSHIP
SHAMOKIN DAM BOROUGH
CHESTNUT STREET
SPRUCE STREET
CHERRY ST
ROME CT.
BALDWIN BLVD.
CORTLAND DR.
STAYMAN

0 300 600 900 Feet

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ASH BASIN FOCUS AREA

EXHIBIT 9

AGRICULTURAL RESOURCES

PAGE 27	Scale: 1" = 900'

IV. ALTERNATIVES

A. ALTERNATIVES DEVELOPMENT OVERVIEW

The alternatives development process included the following general steps.

1. Determined design must be modified based on identification of final design needs.
2. Developed preliminary alternatives to meet needs (both overall project needs and individual focus area final design needs).
3. Evaluated the engineering characteristics of each alternative and determined their ability to meet needs.
4. For the alternatives meeting needs, evaluated their impacts on environmental resources (including natural, cultural, agricultural, and socioeconomic resources).
5. Compared alternatives based on environmental impacts and engineering characteristics and identified the recommended Preferred Alternative.
6. Obtained feedback from public, local officials, and environmental agencies.

B. ALCAB TEST

Alternative development first considered whether each alignment refinement satisfied the project needs and to what degree. Those alternatives that addressed the project need were further evaluated to assess impacts to natural, cultural, agricultural, and socioeconomic resources. An alternative that does not meet the project needs is determined not prudent. An alternative that results in substantial environmental impacts compared to the other alternatives is considered not reasonable.

C. FOCUS AREA ALTERNATIVES

1. Mill/App Road Focus Area

The DAM preliminary design in this focus area included the following design components (see Exhibits 4 and 5):

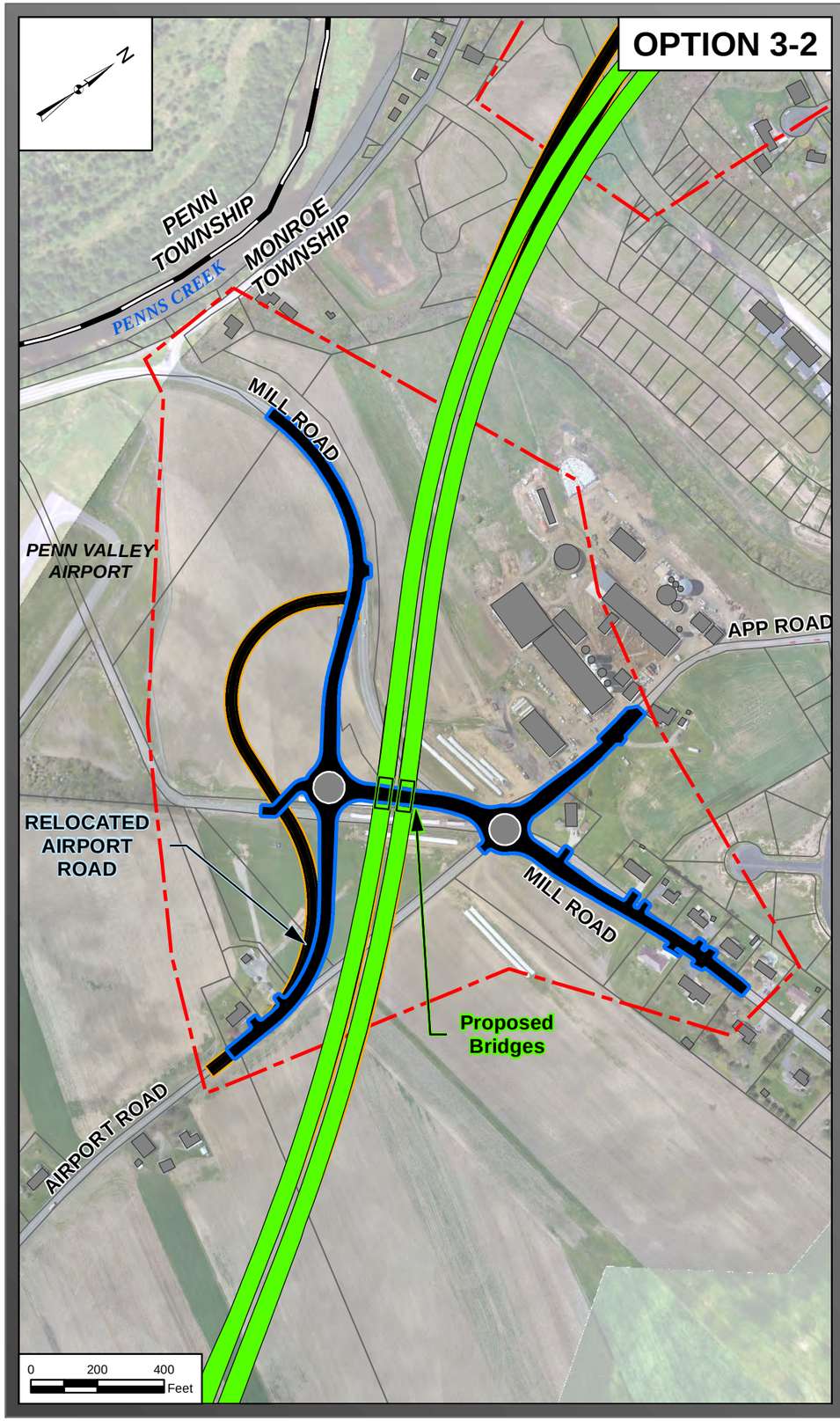
- Mill Road has a severe skew with respect to the mainline DAM. This causes the bridges on the CSVT Mainline to be constructed at a skew and with significantly more deck area.
- Relocation of Airport Road.
- Due to the relocation of Airport Road, two "T" intersections (one "T" intersection between Mill Road and App Road and a second "T" intersection between relocated Airport Road and Mill Road).

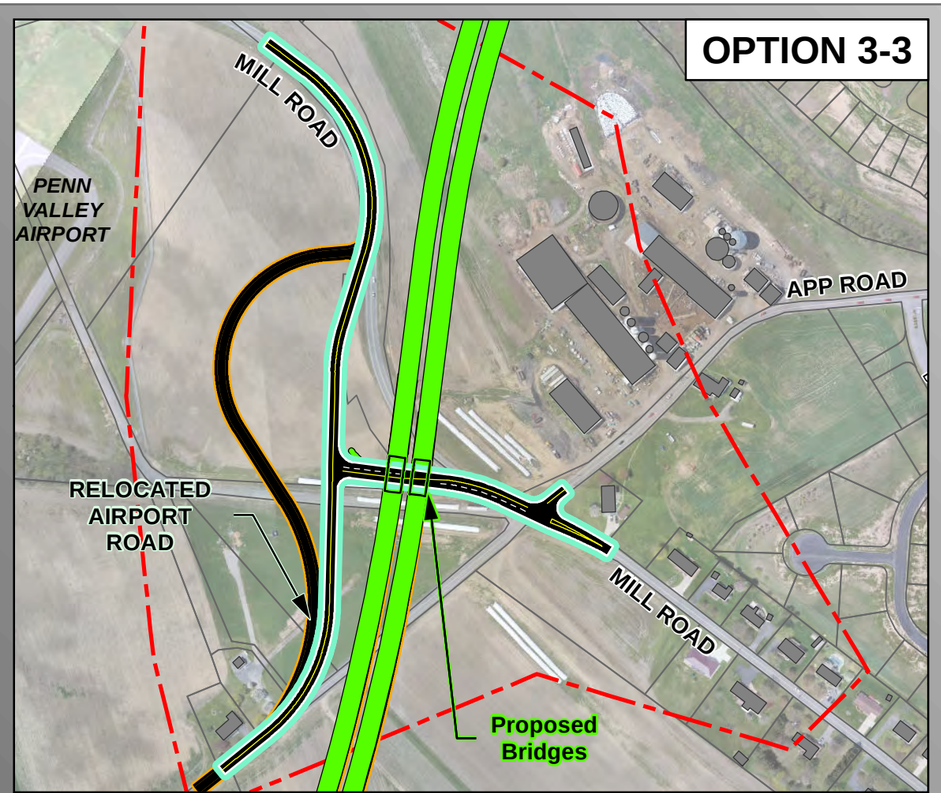
A design refinement analysis was completed to meet the following needs:

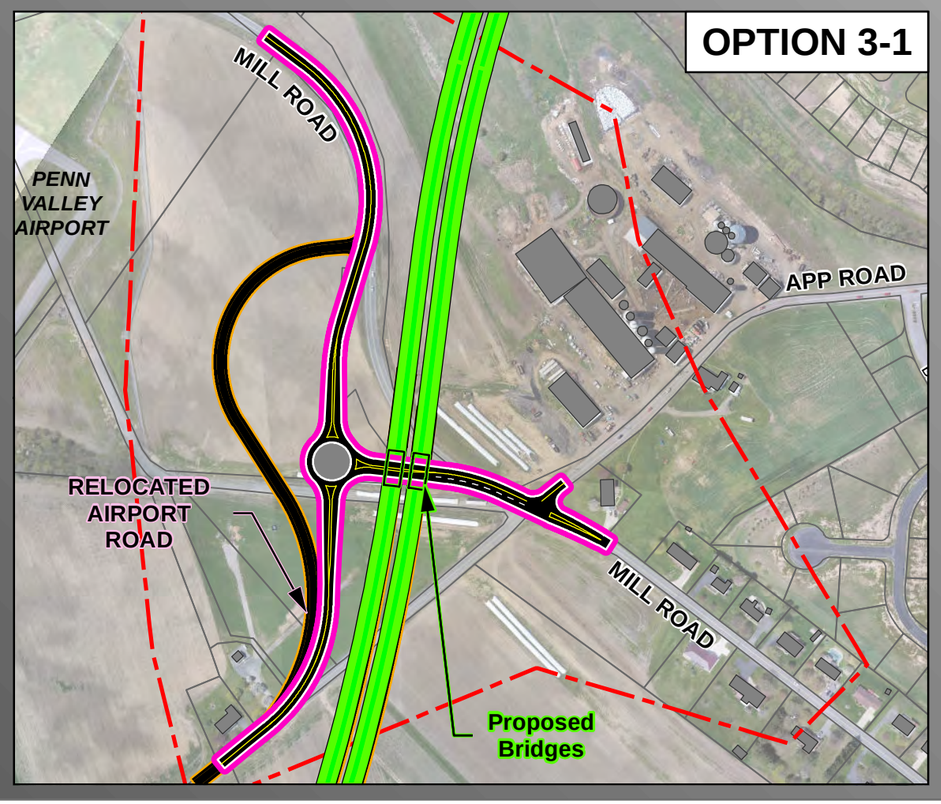
- Improve constructability of the CSVT Mainline by improving the skew of the bridges to 90 degrees thereby reducing the deck area of the bridges. This would allow more structure options and reduce costs.
- Reduce congestion and accommodate growth by improving the capacity (i.e., levels of service) at the two "T" intersections.
- Improve safety by reducing traffic conflicts at the two "T" intersections thereby reducing crashes.

The first step in the design refinement analysis was to reduce the skew of the mainline bridges over Mill Road. This was accomplished by relocating Mill Road so that it passed beneath the CSVT Mainline at a 90° angle. Once Mill Road was located, the relocation of Airport Road was necessary as well. All of the design refinements include the following (see Exhibit 10):

- Relocated Mill Road leading to CSVT Mainline crossing at a 90° angle. This allowed the CSVT Mainline bridges to be redesigned at a better skew. This improves the constructability of the CSVT Mainline.
- Relocated Airport Road.







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SOUTHERN SECTION
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LEGEND

- *DAM Approved by ALCAB (5/08/06)*
- *Mill / App Road Design Refinement*
- *Focus Areas*
- *Municipalities*

OPTION 3-2

OPTION 3-3

OPTION 3-1

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MILL / APP ROAD FOCUS AREA

EXHIBIT 10

DESIGN REFINEMENTS

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The relocation of Mill Road and Airport Road allows the CSVT Mainline to be redesigned to improve the skew of the bridges. This reduces the proposed structure deck area by more than 30%, allows additional structure types and sizes, and reduces costs. These elements meet the need of improving constructability and will be incorporated into the final design.

Three options were then analyzed to connect realigned Mill Road to App Road and realigned Mill Road to relocated Airport Road. The intersections/connections were analyzed with either roundabouts, "T" intersections with stop-controlled approaches, or a combination of both to control traffic flow. The following options were considered (see Exhibit 10).

- **Option 3-1**
  Roundabout at relocated Mill Road and Airport Road intersection and "T" intersection at App Road and relocated Mill Road
- **Option 3-2**
  Roundabout at relocated Mill Road and Airport Road intersection and roundabout at App Road and relocated Mill Road
- **Option 3-3**
  "T" intersection at relocated Mill Road and Airport Road intersection and "T" intersection at App Road and relocated Mill Road

The options were further analyzed for their ability to meet the project need of reducing congestion.

- **Option 3-1**
  The roundabout at Airport Road/Mill Road in Option 3-1 would operate at LOS B during the P.M. peak hour. The "T" intersection would operate at LOS D during the P.M. peak hour.
- **Option 3-2**
  The roundabouts in Option 3-2 would both operate at LOS B in the P.M. peak hour. In addition, the roundabout between App Road and Mill Road decreases the delay for vehicles at the stop condition from 25 seconds per vehicle to 10 seconds per vehicle.
- **Option 3-3**
  The "T" intersection in Option 3-3 at Airport Road/Mill Road would operate at LOS E during the peak hour with an all-way stop condition and LOS D during the peak hour with the north-south movement from Airport Road to Mill Road to operate free-flow.

Option 3-2 best meets the need of reducing congestion and accommodating growth by offering the best flow and traffic capacity. Options 3-1 and 3-3 are not prudent because they fail to meet the need to reduce congestion as well as Option 3-2.

Finally, the options were analyzed for their ability to meet the project need to improve safety.

- **Option 3-1**
  The "T" intersection between App Road and Mill Road creates potential turning conflicts at the stop-controlled intersection. These turning conflicts are reduced at the Airport Road/Mill road roundabout.

- **Option 3-2**
  The roundabouts in Option 3-2 minimize potential traffic conflicts like those at stop-controlled "T" intersections. The roundabout design will also reduce vehicle speeds for vehicles moving through them, particularly eastbound and westbound traffic, which should increase driver safety.

- **Option 3-3**
  With two "T" intersections, multiple turning conflicts exist in this option. Turning conflicts can lead to 90° crashes and reduce safety.

Option 3-2 best meets the need of improving safety by reducing turning conflicts thereby reducing crashes.

Based on the data presented, Option 3-2 provides the most operational advantages and best meets the needs. The dual roundabout design provides many benefits in congestion reduction and safety over the other two designs. Option 3-2, combined with the relocation of Mill Road and Airport Road, is the only prudent alternative in the Mill/App Road Focus Area (refer to Table 5, p. 44).

i. *Environmental Summary – Mill/App Road Focus Area*

Option 3-2 resulted in impacts to productive farmland similar to the DAM Alternative on the Heimbach property (see Table 1). The DAM Alternative impacted 17.5 acres of productive farmland, as compared to the design refinement within the Mill/App Road Focus Area which resulted in 15.6 acres of productive farmland impacts. There were no other natural resource impacts identified with the DAM or revised alignment for the Mill/App Road Focus Area. All other environmental impacts were minimal with both the DAM and design refinement but the required right-of-way for the Mill/App Road Focus Area is two acres greater than the DAM Alternative. The

increased right-of-way was a result of improvements needed to make Option 3-2 a prudent and reasonable alternative for the Mill/App Focus Area.

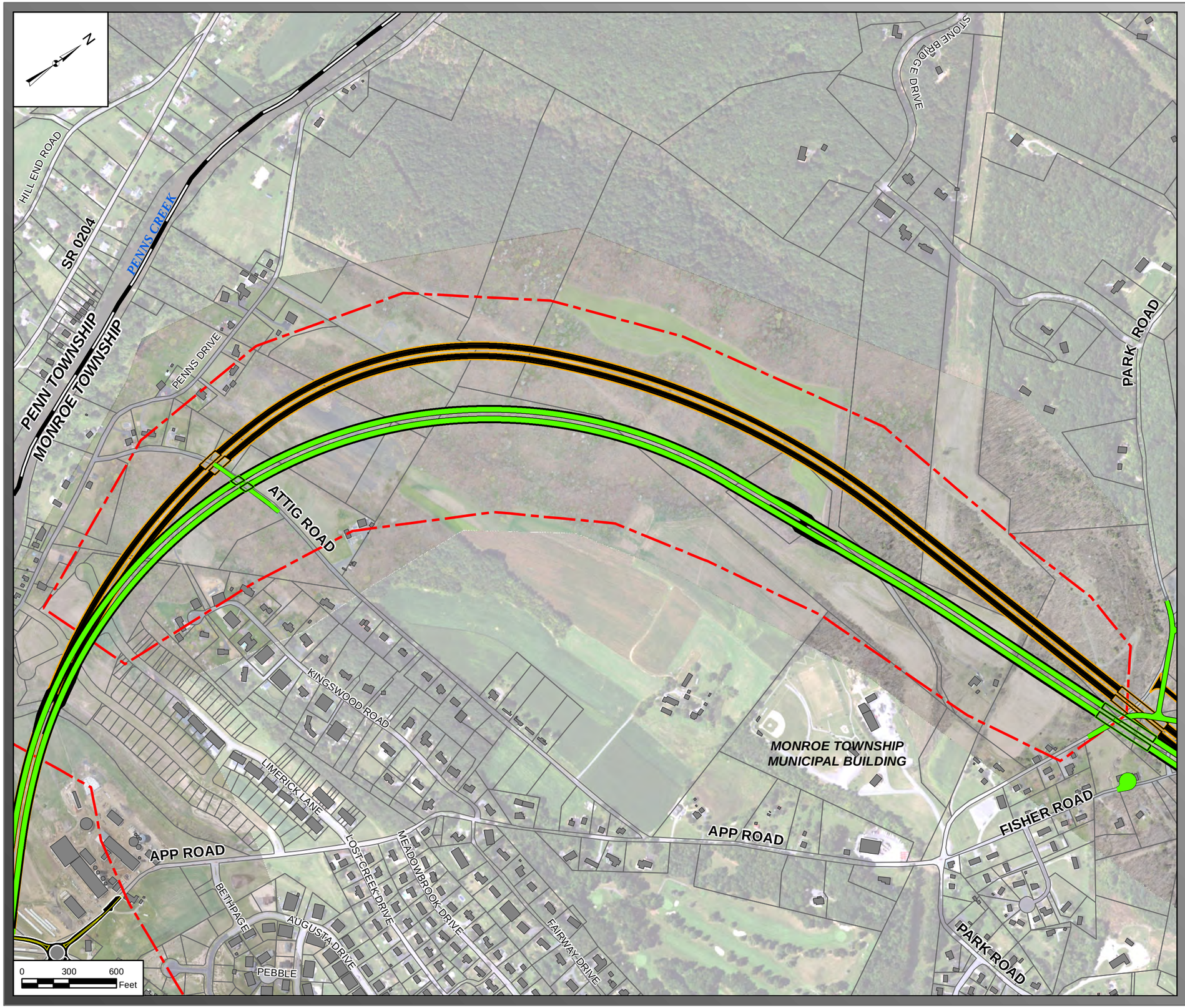
TABLE 1
ENVIRONMENTAL SUMMARY – MILL/APP ROAD FOCUS AREA

			No Change DAM Alternative Adjacent to Mill/App Road Focus Area*	Mill/App Focus Area Design Refinement
Total Area/Required Right-of-Way (Acres)			22.0	24.0
Farmlands	**Agricultural Security Area (Acres)**		2.2	2.0
	Productive Farmland (Acres)	**Heimbach**	17.5	15.6
	Statewide Importance Soils (Acres)		5.3	6.7
	Prime Farmland Soils (Acres)		16.7	17.3
Natural Resources	**Wetland (Acres)**		0.0	0.0
	Streams (Linear Feet)		0.0	0.0
	Wooded (Acres)		0.0	0.0
	Hedgerow (Acres)		0.0	0.0
	Old Field (Acres)		0.0	0.0
	Threatened and Endangered Species Suitable Habitat		Northern Long-Eared Bat	Northern Long-Eared Bat
Cultural Resources	**High Prehistoric Archaeology Probability (Acres)**		0.6	1.6
	Historic Resources (Acres)		0.0	<0.1
Potential Waste Areas (Acres)			0.0	0.0
Recreational Areas/Section 4(f) Resources (Acres)			0.0	0.0

* *No Change DAM Alternative impacts were assessed for comparative purposes and reflect impacts within the Mill/App Road Focus Area – they are a subset of impacts assessed in the FEIS*

2. Acid-Bearing Rock Focus Area

The overall design refinement in this focus area was developed to meet the final design need of avoiding or reducing the disturbance and excavation of ABR. The horizontal alignment was shifted up to 400 feet south of the original alignment of DAM and the vertical alignment increased to minimize excavation in the cut areas. The proposed shift begins approximately 1,500 feet south of Attig Road and ends as the alignment ties into the ash basin avoidance alternatives near Park Road and Fisher Road (refer to Exhibit 11).



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- *Acid-Bearing Rock Design Refinement*
- *Focus Areas*
- *Municipalities*

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ACID - BEARING ROCK FOCUS AREA

EXHIBIT 11

DESIGN REFINEMENT

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The DAM Alternative resulted in the excavation of 2 million cubic yards of ABR. The revised alignment within the Acid-Bearing Rock Focus Area results in 0.4 million cubic yards of ABR, an 80% reduction.

This realignment of the CSVT Mainline meets the final design project need of avoiding or reducing acid rock excavation. This design refinement also improves the constructability of the CSVT Mainline. The ABR design refinement is the only prudent and reasonable alternative in the Acid-Bearing Rock Focus Area (see Table 5, p. 44).

i. *Environmental Summary – Acid-Bearing Rock Focus Area*

Table 2 describes the environmental impacts of the DAM Alternative as compared to the ABR design refinement. The area of the right-of-way was reduced by 23.8 acres. The productive farmland impact increased slightly with the Acid-Bearing Rock Focus Area (31.3 acres) due to

TABLE 2
ENVIRONMENTAL SUMMARY – ACID-BEARING ROCK FOCUS AREA

			No Change DAM Alternative Adjacent to Acid-Bearing Rock Focus Area*	Acid-Bearing Rock Focus Area
Total Area/Required Right-of-Way (Acres)			89.1	65.3
Farmlands	**Agricultural Security Area (Acres)**		24.6	20.5
	Productive Farmland (Acres)	**Heimbach**	26.7	31.3
	Statewide Importance Soils (Acres)		21.4	15.4
	Prime Farmland Soils (Acres)		4.8	1.9
Natural Resources	**Wetland (Acres)**		0.3	0.4
	Streams (Linear Feet)		3,604.1	3,102.1
	Wooded (Acres)		57.1	35.9
	Hedgerow (Acres)		1.4	0.7
	Old Field (Acres)		18.1	14.2
	Threatened and Endangered Species Suitable Habitat		Northern Long-Eared Bat	Northern Long-Eared Bat
Cultural Resources	**High Prehistoric Archaeology Probability (Acres)**		0.9	0.2
	Historic Resources (Acres)		0.0	0.3
Potential Waste Areas (Acres)			0.3	0.0
Recreational Areas/Section 4(f) Resources (Acres)			0.0	0.0
ABR (cubic yards)			2 million	0.4 million

* *No Change DAM Alternative impacts were assessed for comparative purposes and reflect impacts within the Acid-Bearing Rock Focus Area – they are a subset of impacts assessed in the FEIS*

inaccessible productive agricultural land. Most notable is the reduction in ABR, with the original DAM Alternative requiring 2 million cubic yards, which was reduced to 0.4 million cubic yards by the ABR design refinement.

3. Ash Basin Focus Area Alternatives

To pursue modification of the CSVT Southern Section, PennDOT, with input from the USACE, U.S. EPA, PA DEP, and regulatory agencies and in light of public interest and safety, developed three alternatives within the Ash Basin Focus Area to meet all project needs and to avoid the use of the southern and northern ash basins. All three alternatives require the realignment of about two miles of the DAM Alternative's Mainline highway as well as modifications to the PA Route 61 Connector.

The Ash Basin Focus Area Alternatives are named based on the corridor in which they are located. The alternatives are shown together on Exhibit 12. The Western Alternative (shown in tan) passes west of both ash basins. The Central Alternative (shown in pink) passes between the two ash basins. The Eastern Alternative (shown in green) passes east of both ash basins. The DAM approved by ALCAB on May 8, 2006 (shown in orange and black) bisects both ash basins.

For each alternative, the mainline is designed as a four-lane, limited-access highway with a 36-foot-wide median, 4% maximum grades, 10-foot-wide outside shoulders, 4-foot-wide inside shoulders, and a design speed of 70 miles per hour (mph). The PA Route 61 Connector is designed as a two-lane, limited-access highway with auxiliary lanes, a 10-foot-wide median, 5% maximum grades, 10-foot-wide outside shoulders, 4-foot-wide inside shoulders, and a design speed of 50 mph.

- **Western Alternative**

  The Western Alternative (shown on Exhibit 12 in tan) begins at Fisher Road and turns north, heading to the west of the Southern Ash Basin. Curving around the northern end of the Southern Ash Basin, the Western Alternative then heads in a northeasterly direction, crossing under Stetler Avenue and over 11th Avenue and tying into the No Change DAM Alternative as it crosses under Sunbury Road. The PA Route 61 Connector heads in a westerly direction from U.S. Routes 11/15 for approximately 1.14 mile, passing south of the Northern Ash Basin and then proceeding between the Northern and Southern Ash Basins, crossing over 11th Avenue. The Western Alternative/PA Route 61 Connector Interchange is located north and west of the Southern Ash Basin.

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- DAM Approved by ALCAB (5/08/06)
- Focus Areas
- Municipalities
- Ash Basin
- Western Alternative
- Central Alternative
- Eastern Alternative

pennsylvania
DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION UNITED STATES OF AMERICA

SKELLY and LOY, Inc.	April 2020

ASH BASIN FOCUS AREA

EXHIBIT 12

AVOIDANCE ALTERNATIVES

PAGE 37	Scale: 1" = 900'

N

0 300 600 900 Feet

- **Central Alternative**
  The Central Alternative (shown on Exhibit 12 in pink) begins at Fisher Road and continues in an easterly direction, passing south of the Southern Ash Basin. Curving around the southern end of the Southern Ash Basin, the Central Alternative then heads in a northerly direction between the Northern and Southern Ash Basins, crossing over Stetler Avenue and 11th Avenue and tying into the DAM Alternative as it crosses under Sunbury Road. The PA Route 61 Connector heads in a westerly direction from U.S. Routes 11/15 for approximately 0.6 mile, passing south of the Northern Ash Basin. The Central Alternative/PA Route 61 Connector Interchange is located between 11th Avenue and the Northern Ash Basin.

- **Eastern Alternative**
  The Eastern Alternative (shown on Exhibit 12 in green) begins at Fisher Road and continues in an easterly direction. Passing south and east of the Southern Ash Basin, the Eastern Alternative crosses over Stetler Avenue and 11th Avenue before passing south and east of the Northern Ash Basin. The Eastern Alternative then curves around the eastern side of the Northern Ash Basin, heading in a northwesterly direction and tying into the DAM Alternative as it crosses under Sunbury Road. The PA Route 61 Connector heads in a northerly direction from U.S. Routes 11/15 for approximately 0.3 mile, passing east of the Northern Ash Basin. The Eastern Alternative/PA Route 61 Connector Interchange is located east of the Northern Ash Basin.

i. *Environmental Summary – Ash Basin Focus Area*

1) Natural Resources

The environmental impacts associated with each alternative vary, depending on the surrounding landscape. When comparing the three Ash Basin Focus Area Alternatives, the Eastern Alternative has higher impacts to streams and forested land cover than the other two alternatives, which are characterized as having higher residential displacements and impacts to agricultural lands (see Table 3). There is a tradeoff between natural resources impacted by the Eastern Alternative and impacts to residential areas and productive farmland associated with the Central/Western Alternative. The increase in stream impacts associated with the Eastern Alternative is a result of several small, intermittent or ephemeral streams that feed into the existing channel around the Northern Ash Basin. These are not perennial streams supporting wild trout; they are essentially drainages with limited flow and habitat. The Eastern Alternative has less wetland impacts when compared to the other Ash Basin Focus Area alternatives and results in an overall reduction in wetland impacts when compared to the DAM Alternative.

TABLE 3 ENVIRONMENTAL SUMMARY – ASH BASIN FOCUS AREA						
			*No Change DAM Alternative	Western Alternative	Central Alternative	Eastern Alternative**
Total Area/Required Right-of-Way (Acres)			161.8	166.4	163.6	165.8
Farmlands	Agricultural Security Area (Acres)		8.2	43.9	26.2	25.8
	Productive Farmland (Acres)	Hummel Bros.	51.9	48.4	69.8	33.7
		Stump Valley	11.7	8.2	5.9	12.1
		J. Godek	1.3	12.2	9.1	4.5
		M. Thomas	0.3	0.0	0.0	0.0
		Total	**65.2**	**68.8**	**84.8**	**50.1**
	Statewide Importance Soils		59.1	79.3	75.1	71.8
	Prime Farmland Soils		18.9	37.4	25.8	42.3
Natural Resources	Wetland (Acres)		1.6	1.8	1.6	1.1
	Streams (Linear Feet)		5,444	4,228	4,017	6,073
	Wooded (Acres)		63.7	62.0	71.0	94.0
	Hedgerow (Acres)		0.0	0.5	0.2	0.4
	Old Field (Acres)		50.8	10.7	9.9	12.8
	Threatened and Endangered Species Suitable Habitat		Northern Long-Eared Bat	Northern Long-Eared Bat	Northern Long-Eared Bat	Northern Long-Eared Bat
Cultural Resources	High Prehistoric Archaeology Probability (Acres)		0.0	0.7	0.8	1.9
	Historic Resources		0	0	0	0
Potential Waste Areas			3	0	2	1
Recreational Areas/Section 4(f) Resources			0	0	0	0
Noise Impacted Residences			54	67	48	48
Residential Displacements	New		--	8	10	6
	Needed - Not Yet Acquired		4	12	14	7
	Needed - Already Acquired		5	2	4	0
	Not Needed - Already Acquired		0	3	1	5
	Total		**9**	**17**	**19**	**12**
Planned Residential Developments	Weatherfield Development – Approved (Acres)		0.0	0.8	0.8	1.1
	Grayston Property – Conceptual (Acres)		0.0	0.0	0.0	3.5
	Broscious Property – Approved (Acres)		13.6	13.7	13.7	12.8
	Total (Acres)		**13.6**	**14.5**	**14.5**	**17.4**

* *No Change DAM Alternative impacts were assessed for comparative purposes and reflect impacts only within the Ash Basin Avoidance Focus Area – they are a subset of impacts assessed in the FEIS.*

** *The summary of impacts to the Western, Central, and Eastern Alternatives within the Ash Basin Focus Area were identified within the Supplemental Environmental Assessment Ash Basin Focus Area, as prepared May 31, 2018.*

Through the development of the CSVT Project, the USFWS has identified concerns regarding potential impacts to Indiana Bats and Northern Long-Eared Bats, species dependent on forested habitat. FHWA and PennDOT consulted with the USFWS for the Southern Section of the CSVT Project, and it was determined that the project is likely to adversely affect Northern Long-Eared Bats but that any resulting incidental take of Northern Long-Eared Bats is not prohibited by the Final 4(d) Rule associated with the federal listing of this species as threatened.

Further, it was determined, based on species and hibernacula survey results, that the Southern Section of the CSVT Project may affect, but is not likely to adversely affect the Indiana bat. The USFWS, in a February 28, 2018, letter, concurred with the effect determinations for both species. The effects and regulatory results are consistent for all three Ash Basin Focus Area Alternatives.

Forest land is potential habitat for the Northern Long-Eared Bat and Indiana Bat. Forest land impacts for the different alternatives include:

- Eastern Alternative: 94.0 acres;
- Central Alternative: 71.0 acres;
- Western Alternative: 62.0 acres, and
- DAM Alternative: 63.7 acres.

2) Agricultural Resources

Agricultural operations within the Ash Basin Focus Area include Hummel Brothers, Godek Farm, Stump Valley Farm, and Mike Thomas. The Hummel Brothers farming operation, based on Stetler Avenue between the two ash basins, is located at the heart of the Ash Basin Focus Area. These seventh-generation farmers actively farm the majority of the agricultural fields within the Ash Basin Focus Area. While the Eastern Alternative passes directly north of their base of operation, it has the least impact on the productive farmland they use for their business. Although this alternative bisects a pasture they lease from Talen Energy and cuts through a portion of their property east of Stetler Avenue, the impacts to their operation would be less than the Western and Central Alternatives since those require the acquisition of several tracts of their highly productive farmland. The Godek and Stump Valley Farm operations consist of leased pasture and crop fields located at the northern limits of the focus area. The Godek operation would be more severely impacted with the Western Alternative since it bisects his pasture, while the Eastern Alternative impacts the operation the least. The Stump Valley Farm operation has more leased crop acreage impacted with the Eastern Alternative. The DAM Alternative has similar agricultural resource impacts as the Western Alternative. Of the three Ash Basin Focus Area Alternatives, the Eastern Alternative has the least impact on productive farmland and farming operations. In addition, the Eastern Alternative has less impact to productive agricultural lands then the approved DAM Alternative (see Table 3).

3) Socioeconomic Resources

Including properties previously acquired to accommodate the DAM Alternative, the Western Alternative requires 17 residential displacements whereas the Central Alternative requires 19 and the Eastern Alternative requires 12. There are fewer displacements with the Eastern Alternative because a large amount of the alignment is in undeveloped wooded land adjacent to the Northern Ash Basin. The Western Alternative also has the higher number of homes impacted by traffic noise due to the residential landscape. In addition, based on current FHWA traffic noise standards and PennDOT guidelines, noise mitigation (i.e., noise barriers) would not be likely for these areas given the low density and spacing of the homes. The Central and Eastern Alternatives have a similar number of noise-impacted residences (see Table 3).

ii. *Engineering Summary – Ash Basin Focus Area*

A comparison of the engineering characteristics of each alternative is presented in Table 4. In general, all three new Ash Basin Focus Area Alternatives are similar in earthwork and roadway length. Notable differences between the alternatives are the weave length, bridge area, estimated cost, utility impacts, geotechnical considerations, and the PA Route 61 Connector usage.

The DAM Alternative has the highest cost associated with the added ash basin geotechnical requirements. In addition, it has serious constructability issues and does not meet the final design project need of avoiding all impact to the ash basins. Combined with the excessive environmental impact of constructing over the basins, this alternative is no longer a prudent or reasonable alternative.

The DAM, Western, and Central Alternatives have greater weave lengths along the PA Route 61 Connector between the CSVT Mainline highway and existing U.S. Routes 11/15 than the Eastern Alternative. Weave length is the distance where vehicles are frequently changing lanes to either enter or exit the highway. The longer the weave length, the easier it is for vehicles to find a gap and change lanes.

The Central Alternative requires longer bridges than the other two Ash Basin Focus Area Avoidance Alternatives, almost doubling the bridge area than what is required for the Western Alternative and DAM.

TABLE 4 ENGINEERING SUMMARY – ASH BASIN FOCUS AREA					
		No Change DAM Alternative	Western Alternative	Central Alternative	Eastern Alternative
Earthwork	Cut	2.16 M CY	2.21 M CY	1.91 M CY	1.89 M CY
	Fill	1.54 M CY	2.55 M CY	2.07 M CY	2.21 M CY
Roadway Length[1]	Mainline	19,424 LF	21,509 LF	19,553 LF	19,798 LF
	Ramps	16,912 LF	16,845 LF	15,152 LF	16,669 LF
Weave Length[2]	PA Route 61 NB	4,800 LF	5,500 LF	3,200 LF	1,440 LF
	PA Route 61 SB	3,700 LF	6,000 LF	2,800 LF	1,590 LF
Bridge Area		106 K SF	91 K SF	191 K SF	145 K SF
Utility Relocation	UGI Gas Line	0 LF	350 LF	350 LF	3,500 LF
	PPL Electric Transmission Line	2,320 LF	4,990 LF	10,800 LF	3,230 LF
Ash Basin Focus Area Construction Cost		$181 M	$110 M	$127 M	$120 M
Ash Basin Focus Area Total Cost[3]		$192 M	$118 M	$139 M	$131 M
PA Route 61 Connector Usage vs. No Change DAM Alternative		--	30% less traffic removed from existing road network	10% more traffic removed from existing road network	30% more traffic removed from existing road network
Stormwater Management (SWM)		Most challenging; requires diversion of all stormwater off ash basins	Requires average number and size of SWM features	Requires average number and size of SWM features	Requires large number and size of SWM features
Geotechnical Considerations		Excessive and potentially detrimental settlement and deformation of highway within ash basins	Potential for acid rock; Steepened slope below Northern Ash Basin dam; Blasting restrictions needed near dams	Steepened slope below Northern Ash Basin dam; Blasting restrictions needed near dams	Steepened slope below Northern Ash Basin dam; Realigned spillway channel below Northern Ash Basin dam; Blasting restrictions needed near dams

NOTES:
(1) Mainline includes CSVT and PA Route 61 Connector; ramps include side roads
(2) Distance along PA Route 61 Connector between CSVT and U.S. Routes 11/15 Interchange
(3) Total Cost = Ash Basin Focus Area Construction Cost + Right-of-Way Cost + Utility Relocation Cost
Construction cost for No Change DAM Alternative includes $70 million for ash basin geotechnical ground modification

Where required, anticipated utility right-of-way was included in the anticipated limit of disturbance and accounted for in the impact calculations for each alternative. The DAM Alternative does not impact the UGI utility line. Each of the new Ash Basin Focus Area Alternatives requires the relocation of both PPL transmission lines as well as the UGI gas line. All of the Ash Basin Focus Area alternatives cross PPL electric transmission lines, requiring relocation and replacement right-of-way to accommodate the relocated lines. The Eastern Alternative has the least impact on Talen Energy right-of-way and would need a small section of replacement right-of-way west of Stetler Avenue on the Hummel farm (approximately 3,200 feet).

The distance the traveling public is required to drive on the PA Route 61 Connector affects how many vehicles will use the facility. The longer the travel distance using the PA Route 61 Connector, the more likely motorists will continue to use the existing road network. The Western Alternative will have the longest travel times on the PA Route 61 Connector whereas the Eastern Alternative will have the shortest. It is projected that the Eastern Alternative will attract 30% more traffic onto the PA Route 61 Connector than the No Change DAM Alternative and that the Western Alternative will attract 30% less traffic than the DAM Alternative due to its longer distance from

U.S. Routes 11/15. The Central Alternative is projected to attract 10% more traffic onto the PA Route 61 Connector than the DAM Alternative.

Based on a subsurface exploration program consisting of some soil borings and laboratory testing, construction of the Western Alternative has some potential to encounter ABR north of Fisher Road. The borings and tests showed no potential for encountering ABR along the Eastern and Central Alternatives.

Through the alternatives development and analysis process described above, the project team, the public, local officials, and environmental agencies collaborated to develop the best solution to avoid the ash basins while minimizing impacts and meeting the primary transportation needs for the CSVT Project. The DAM Alternative has been found to be neither prudent or reasonable due to the previously stated constructability issues and higher environmental impact associated with constructing on the ash basins. The Western and the Central Alternatives are not considered reasonable and were dismissed from further consideration based on higher environmental impacts to farmlands, residences, and wetlands. The Western Alternative was also not considered prudent as it does not meet the transportation need of reducing congestion as well as the other Ash Basin Area Avoidance Alternatives due to the increased length of the PA Route 61 Connector. The Eastern Alternative was advanced for consideration because it:

- best meets the needs of the project through increased usage of the PA Route 61 Connector and the associated congestion reduction on the existing road network;
- has the least impact to residences;
- has the least impact to farmlands; and
- has the least impact to wetlands.

The Eastern Alternative is the only prudent and reasonable alternative in the Ash Basin Focus Area.

D. RECOMMENDATION OF AN ALCAB PREFERRED ALTERNATIVE

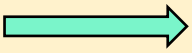
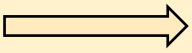
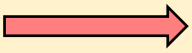
The final design alignment refinements analyzed for each of the three focus areas have been outlined in Sections IV.C.1, IV.C.2, and IV.C.3. The focus area alternatives have been evaluated based on their ability to meet the project need (prudency test), their constructability (prudency test), and their ability to minimize environmental impacts (reasonable test). The only

prudent and reasonable alternative in each focus area has been recommended as the ALCAB Preferred Alternative. This alternative includes:

- Mill/App Road Focus Area – Option 3-2
- Acid-Bearing Rock Focus Area – ABR Design Refinement
- Ash Basin Focus Area – Eastern Alternative

See Table 5 and the combined Southern Section ALCAB Preferred Alternative on Exhibit 13.

TABLE 5
EVALUATION OF FINAL DESIGN FOCUS AREA ALTERNATIVES

	After ALCAB Approval (May 8, 2006)	Conclusion	Notes	Reason for Dismissal	
				Not Prudent	Not Reasonable
Mill/App Road Focus Area Alternatives					
DA Modified (DAM)		Dismissed	Not prudent. Fails to fully meet need due to constructability issues related to bridge skew.	X	
Option 3-1		Dismissed	Not prudent. Fails to fully meet need due to decreased levels of service/capacity and decreased safety due to potential turning conflicts at the stop-controlled "T" intersection.	X	
Option 3-2			Option 3-2 is the only prudent and reasonable alternative for the Mill/App Road Focus Area.	**ALCAB PREFERRED ALTERNATIVE**	
Option 3-3		Dismissed	Not prudent. Fails to fully meet need due to decreased levels of service/capacity and decreased safety due to potential turning conflicts at the stop-controlled "T" intersections.	X	
Acid-Bearing Rock Focus Area Alternatives					
DA Modified (DAM)		Dismissed	Not prudent. Fails to meet need due to constructability issues related to ABR. Not Reasonable due to excessive environmental impacts associated with ABR excavation.	X	X
ABR Design Refinement			Prudent and reasonable alternative; 80% reduction in ABR excavation.	**ALCAB PREFERRED ALTERNATIVE**	
Ash Basin Focus Area Alternatives					
DA Modified (DAM)		Dismissed	Not prudent or reasonable due to constructability and excessive environmental concerns related to impacting crossing the ash basins.	X	X
Western Alternative		Dismissed	Not prudent due to not fully meeting the need of reducing traffic congestion due to length of PA Route 61 Connector. Not reasonable due to excessive impacts to residences, wetlands, and agricultural resources.	X	X
Central Alternative		Dismissed	Not reasonable due to excessive impacts to residences, wetlands, and agricultural resources.		X
Eastern Alternative			Eastern Alternative is the only prudent and reasonable alternative for the Ash Basin Focus Area.	**ALCAB PREFERRED ALTERNATIVE**	

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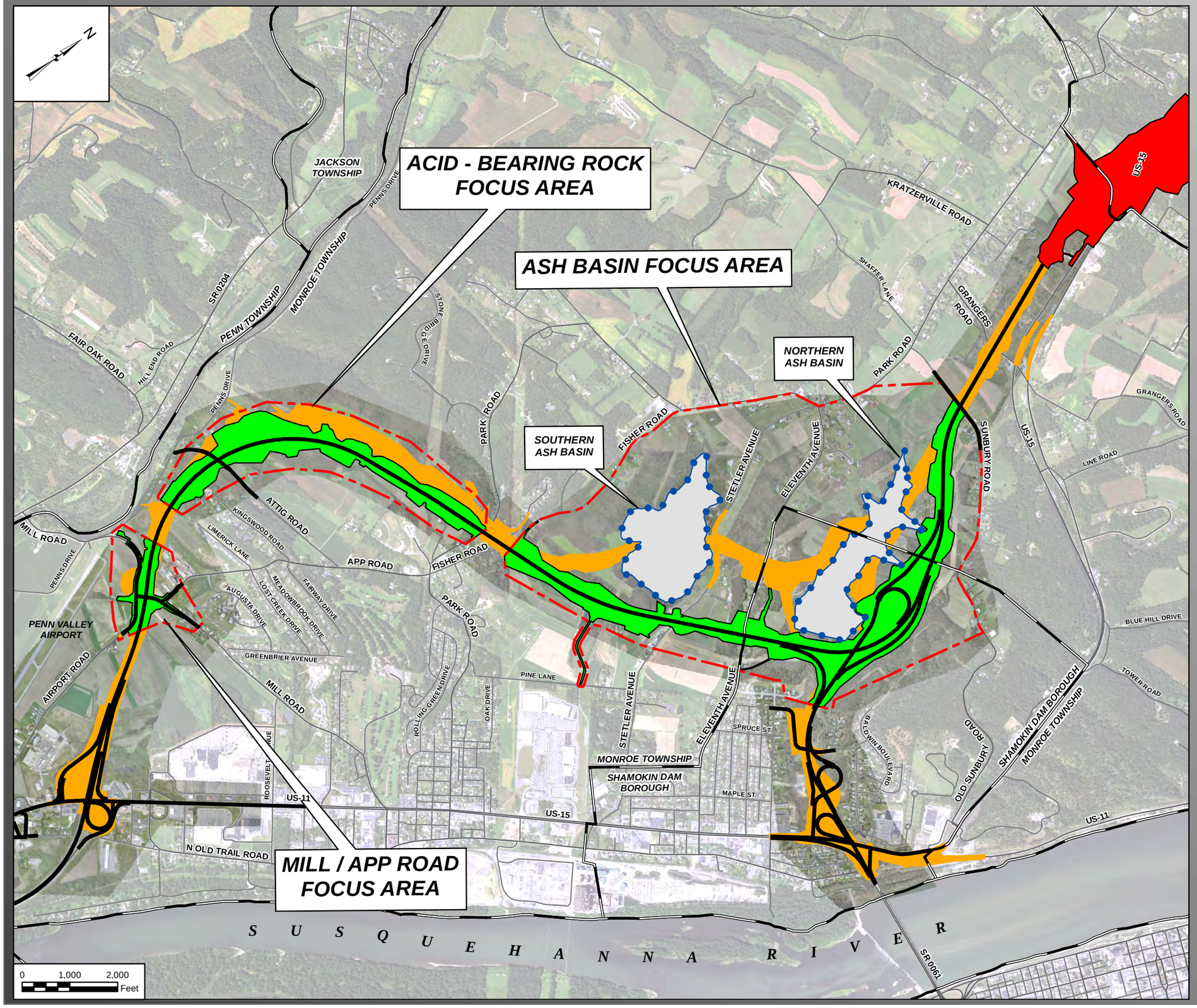

LEGEND

- Ash Basin
- Focus Areas
- Local Roads
- State Roads
- Municipalities
- River Crossing 5 (RC5) Alternative (Under Construction)
- DAM Approved by ALCAB (05/08/2006)

ALCAB Preferred Alternative

- LOD (02/28/2020)
- Centerline

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SOUTHERN SECTION

EXHIBIT 13

ALCAB PREFERRED ALTERNATIVE

PAGE 45	Scale: 1" = 2,000'

V. FARMLAND ASSESSMENT OF THE ALCAB PREFERRED ALTERNATIVE

A. INTRODUCTION

The ALCAB Preferred Alternative for the project is Option 3-2/ABR Design Refinement/ Eastern Alternative. The total direct impact on productive agricultural land from this alternative amounts to 103.4 acres (Direct, Impractical, and Inaccessible), taking cropland and pasture from four current producers. It would also displace one operator's primary residence. The next section provides descriptions of each operation impacted by the ALCAB Preferred Alternative. There are detailed maps of the impacted portions of each farm operation within each focus area.

B. PRODUCTIVE AGRICULTURAL OPERATIONS

1. A. W. (Albert) Heimbach – Dairy (and Dairy Beef) Farm Producer

The base of the A. W. Heimbach and Sons farm operation is located north of the Penn Valley Airport, east of Penns Creek, south of the Monroe Manor residential community, and west of the Susquehanna Valley Mall in Monroe Township, Snyder County. Exhibit 14 illustrates the general location of the operation in the project area. All of the farm operation dairy and feed storage facilities are at the central location along App Road, as illustrated on Exhibits 15 and 16. The founders of the operation, Mr. and Ms. Albert Heimbach, have been farming in this immediate vicinity for over 65 years (since 1953). The current base of the operation was acquired in 1968. Two sons (Wayne and Dave) are partners in the business, and their sons (Mike, Matt, and Blane) are also employed full-time.

The current farm operation consists of approximately 1,485 acres of owned and rented (roughly 80% is leased) crop land and a 31-acre dairy complex that houses 331 Holstein cows, 281 Holstein replacement heifers, and approximately 180 Holstein steers. Average production of the milking herd is 23,209 pounds of milk, 867 pounds of fat, and 719 pounds of protein per year. Dry cows make up, on average, 10% of the milking herd, with heifers calving at 24 months of age and steers marketed at approximately 15 months of age (see Table 6).

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ACID - BEARING ROCK FOCUS AREA

ASH BASIN FOCUS AREA

NORTHERN ASH BASIN

SOUTHERN ASH BASIN

MILL / APP ROAD FOCUS AREA

Exhibit 15

Exhibit 16

Exhibit 17

Exhibit 18

JACKSON TOWNSHIP
PENN TOWNSHIP
MONROE TOWNSHIP
SHAMOKIN DAM BOROUGH
PENN VALLEY AIRPORT

SR 0204
FAIR OAK ROAD
HILLEND ROAD
PENNS DRIVE
STONEBRIDGE DRIVE
KRATZERVILLE ROAD
SHAEFER LANE
GRANGERS ROAD
PARK ROAD
US-15
GRANGERS ROAD
SUNBURY ROAD
LINE ROAD
FISHER ROAD
STETTLER AVENUE
ELEVENTH AVENUE
MILL ROAD
KINGSWOOD ROAD
LIMERICK LANE
ATTIG ROAD
APP ROAD
AUGUSTA DRIVE
LOST CREEK DRIVE
MEADOWBROOK DRIVE
FAIRWAY DRIVE
GREENBRIER AVENUE
AIRPORT ROAD
ROOSEVELT AVE
US-11
N OLD TRAIL ROAD
ROLLING GREEN DRIVE
OAK DRIVE
PINE LANE
SPRUCE ST.
MAPLE ST.
BALDWIN BOULEVARD
OLD SUNBURY ROAD
TOWER ROAD
BLUE HILL DRIVE
SR 0061

0 1,000 2,000 Feet

LEGEND

- ALCAB Preferred Alternative LOD
- Ash Basin
- Focus Areas
- Local Roads
- State Roads
- Municipalities

Productive Farmland Operators

- Godek Farm
- Heimbach Farm
- Hummel Brothers Farm
- Stump Valley Farm
- Mike Thomas

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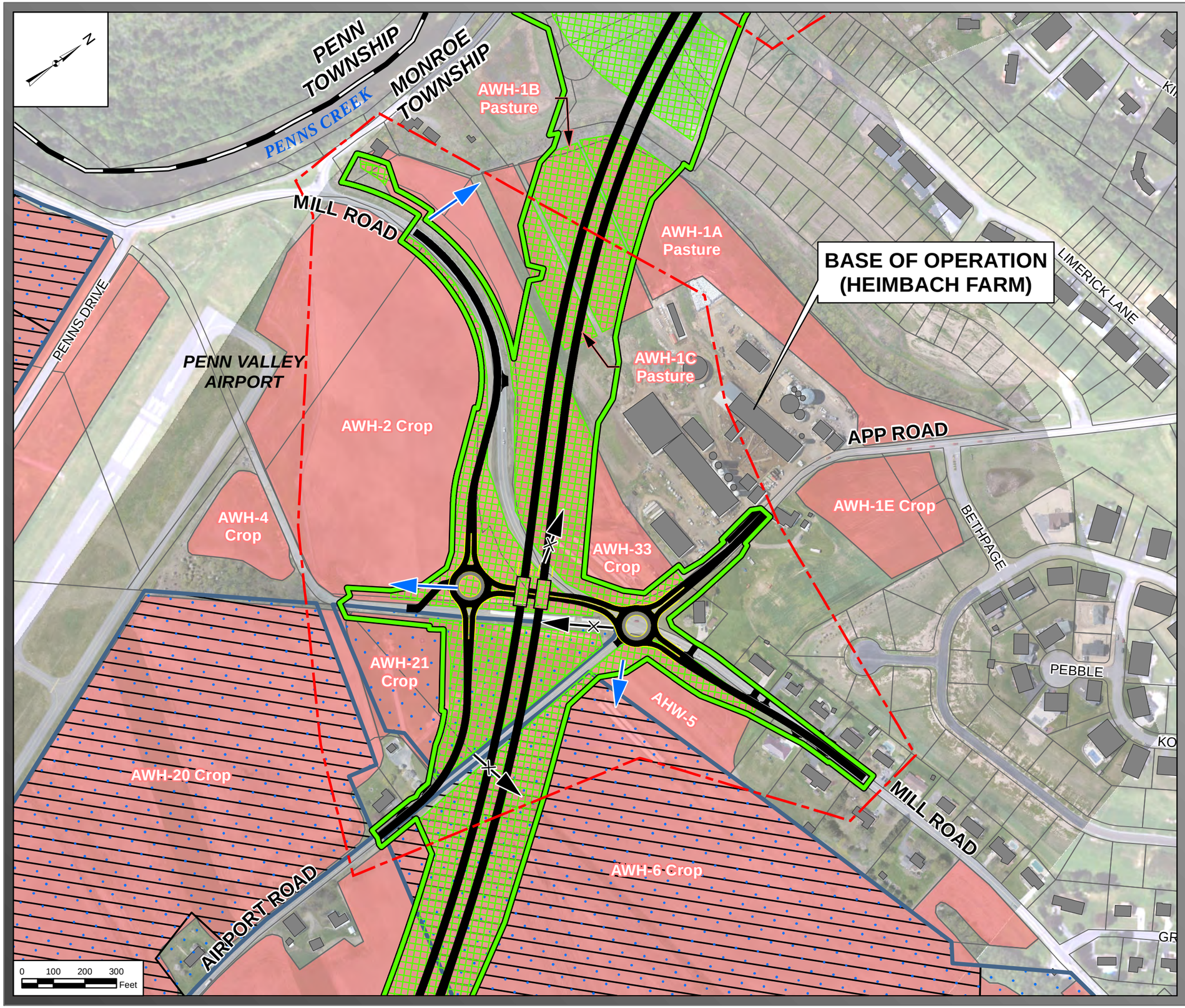
FAR FOCUS AREAS

EXHIBIT 14

INDEX OF PRODUCTIVE FARMLAND OPERATORS

PAGE 47	Scale: 1" = 2,000'



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SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *ALCAB Preferred Alternative LOD*
- *ALCAB Preferred Alternative Design*
- *Focus Areas*
- *Municipalities*
- *Agricultural Zoning*
- *ASA*
- *Impacts to Operators*

Productive Farmland Operators

- *Heimbach Farm*
- *Existing Access (Disrupted)*
- *Proposed Access*

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MILL / APP ROAD FOCUS AREA

EXHIBIT 15

HEIMBACH OPERATIONS

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SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- ALCAB Preferred Alternative LOD
- ALCAB Preferred Alternative Design
- Focus Areas
- Municipalities
- Agricultural Zoning
- ASA
- Clean and Green (Act 319)
- Impacts to Operators
- Indirect Impacts to Operators

Productive Farmland Operators

- Heimbach Farm
- Existing Access
- Existing Access (Disrupted)
- Proposed Access

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ACID - BEARING ROCK FOCUS AREA

EXHIBIT 16

HEIMBACH OPERATIONS

PAGE 49	Scale: 1" = 600'

N

0 300 600 Feet

HILL END ROAD
SR 0204
PENNS CREEK
PENN TOWNSHIP
MONROE TOWNSHIP
PENNS DRIVE
ATTIG ROAD
STONE BRIDGE DRIVE
PARK ROAD
BASE OF OPERATION (HEIMBACH FARM)
AWH-18 Crop
AWH-25 Crop
AWH-23 Crop
AWH-22 Crop
AWH-37 Crop
AWH-1A Pasture
AWH-1B Pasture
AWH-1E Crop
AWH-33 Crop
AWH-24 Crop
KINGSWOOD ROAD
LIMERICK LANE
APP ROAD
LOST CREEK DRIVE
MEADOWBROOK DRIVE
BETHPAGE
AUGUSTA DRIVE
PEBBLE
FAIRWAY DRIVE
MONROE TOWNSHIP MUNICIPAL BUILDING
FISHER ROAD

TABLE 6 A. W. HEIMBACH AND SONS FARMS OPERATION SUMMARY			
Family Farm Since	1953	**Generations Since Established (Currently Farming)**	1st, 2nd, and 3rd
Total Operation Size	1,485 crop acres (approximate)	**Approximate Amount in Mill/App Road Focus Area and Acid-Bearing Rock Focus Area**	80 acres (approximate)
Area of Rented Land	1,200 acres (approximate)	**Properties Where Tenant**	11
Type of Livestock	Dairy (and dairy beef)	**Typical Herd Size**	800 (including approximately 600 dairy cattle and 200 steers)
Crops Grown	Corn, wheat, beans, and hay	**Purpose(s)**	Livestock feed, cash grain
Cropland in Mill/App Road Focus Area and Acid-Bearing Rock Focus Area	77 acres	**Pasture in Mill/App Road Focus Area**	3 acres
Full-Time Employees	7 (Mr. and Ms. Heimbach, 2 sons, and 3 grandsons)	**Part-Time/Seasonal Employees**	2 regular part-time (varies up to 4)/ 1 full-time

There are approximately 1,485 acres of owned and rented land where crops are grown to feed the herd with some marketed as a cash crop. Crop acres have expanded in the last year and are grown to feed the dairy and beef herd with some corn and soybeans marketed as a cash crop. The crops grown are 985 acres of corn for silage and grain (330 acres of which is fall wheat double-cropped with corn), 300 acres of soybeans, and 200 acres of grass and alfalfa hay.

Much of the land farmed by the Heimbach operation is located in southern Monroe Township, but the operation also leases several hundred acres and owns cropland to the west in Penn Township. Of the 1,485 acres of cropland used by the operation, 77 acres of cropland exists in the Mill/App Road Focus Area and Acid-Bearing Rock Focus Area. An additional 3 acres of pasture land exists in the Mill/App Road Focus Area. The base of operation is owned by Albert and Mary Heimbach and contains a total of 144 acres. Public roads used to access farm properties include App Road, Airport Road, Creek Road, Mill Road, Attig Road, Penns Drive, and S.R. 0204.

The farm relies largely on properties owned by others (roughly 80%). Other landowners whose land the Heimbachs' farm include corporations such as the Penn Valley Airport, Susquehanna Valley Mall, Penn Lyons home manufacturing, Geisinger Health Systems as well as individuals including Dagle, Deboes, Cressinger, Fisher, Hahn, Seebold, and Wagner.

As Tables 7 and 8 illustrate, the ALCAB Preferred Alternative directly impacts 24.7 acres of cropland and pasture farmed by A. W. Heimbach and Sons. A total of 16.3 acres are impacted

within Mill/App Road Focus Area, and 8.4 acres are impacted within the Acid-Bearing Rock Focus Area.

TABLE 7
A. W. HEIMBACH AND SONS
IMPACTED FARM PARCELS – MILL/APP ROAD FOCUS AREA

Column A	Column B	Column C*	Column D	Column E	Column F	Column G	Column H
FAR Parcel ID No.	Parcel Owner	Existing Productive Agricultural Land	Productive Agricultural Land Impact				Remaining Land Available for Production (Acres)
			Lost to Right-of-Way (Direct) (Acres)	Left Impractical to Farm (Acres)	Left Inaccessible (Acres)	Total Productive Agricultural Impact (Acres)	
AWH – 1B	Heimbach	2.5	1.2	-	-	1.2	1.3
AWH – 1C	Heimbach	1.5	1.0	-	-	1.0	0.5
AWH - 2	Heimbach	18.7	3.4	-	-	3.4	15.3
AWH - 5	Heimbach	2.5	0.9	-	-	0.9	1.6
AWH - 6	Heimbach	138.6	2.0	-	-	2.0	136.6
AWH - 21	Heimbach, Aqua Pennsylvania, Inc.	5.6	3.4	-	-	3.4	2.2
AWH - 33	Heimbach	7.8	4.4	-	-	4.4	3.4
Subtotal – Operator-Owned Land			16.3	0.0	0.0	16.3	--
Total Acreage of Impacted Parcels			**16.3**			**16.3**	

Note: Total productive agricultural land impact (Column G), is derived from Column C minus Columns D, E, and F. The remaining land available for production is shown in Column H.

** Productive agricultural land totals in Column C represent the total acreage of the farm parcel when intersected by the focus area boundary.*

TABLE 8
A. W. HEIMBACH AND SONS
IMPACTED FARM PARCELS – ACID-BEARING ROCK FOCUS AREA

Column A	Column B	Column C*	Column D	Column E	Column F	Column G	Column H
FAR Parcel ID No.	Parcel Owner	Existing Productive Agricultural Land	Productive Agricultural Land Impact				Remaining Land Available for Production (Acres)
			Lost to Right-of-Way (Direct) (Acres)	Left Impractical to Farm (Acres)	Left Inaccessible (Acres)	Total Productive Agricultural Impact (Acres)	
AWH - 18	App	11.9	0.0	-	11.9	11.9	0.0
AWH - 23	App	12.7	2.1	-	0.7	2.8	9.9
AWH - 25	Debo	20.9	6.3	-	9.9	16.2	4.7
Subtotal – Rented Land			8.4	0.0	22.5	30.9	--
Total Acreage of Impacted Parcels			**8.4**	**0.0**	**22.5**	**30.9**	

Note: Total productive agricultural land impact (Column G), is derived from Column C minus Columns D, E, and F. The remaining land available for production is shown in Column H.

** Productive agricultural land totals in Column C represent the total acreage of the farm parcel when intersected by the focus area boundary.*

The ALCAB Preferred alternative would also render 22.5 acres inaccessible within the Acid-Bearing Rock Focus Area. Total direct and indirect impacts within the Mill/App and Acid-Bearing Rock Focus Areas result in 47.2 acres of impacted farm parcels (total productive agriculture lands). These acres are approximately 3% of the land currently farmed by the A. W. Heimbach and Sons operation.

Because the land on which their dairy operation is located is the only land zoned for agricultural use in the immediate area, and is the only land zoned for agricultural use that the Heimbachs own in this area, the alignment would leave little room for expansion of the facilities, according to the operators. Although Monroe Township has zoned considerable areas for agricultural use to the north and west, the Heimbach dairy farm parcel is isolated; it is surrounded by residential and industrial zoning districts. The recent expansion of the dairy barn brings the barn almost to the "footprint" or limit of disturbance of the ALCAB Preferred Alternative, according to the operators.

Impacts to the Mill/App Road Focus Area total 16.3 acres to parcels (AWH-1B, AWH-1C, AWH-2, AWH-5, AWH-6, AHW-21, and AWH-33) and impacts to the Acid-Bearing Rock Focus Area total 30.9 acres to parcels (AWH-18, AWH-23, and AWH-25). These impacts represent approximately 3% of the A. W. Heimbach and Sons dairy operation, which includes pasture, cropland and a portion of its feed storage.

Soil quality of the land impacted is also a consideration. The farm base of operation and the lands along App Road are situated upon old alluvial (riverbed/floodplain) soils, mapped by the USDA as Wheeling silt loam. The Penn State Agronomy Guide (2017-2018) lists field corn grain yields for Wheeling silt loam at 150 bushels/acre (bu/A). Compared with other land that the Heimbachs farm to the west, containing Weikert channery (shaly) soils that have agronomy guide yields listed at 100 bu/A, impacts to their crop production capability are somewhat higher than the percentage of lost acreage (which is 8%). Based on the increased fixed and variable costs to plant, maintain, and harvest land distant from the operation, the cost to return ratio is also greater for the lands located to the west of the base of the operation. Impacts to the more productive soil (Wheeling silt loam) will occur to the productive agricultural lands closest to the base of operation.

The operators have expressed concerns related to the highways impact on their ability to expand, reduction in pastured acreage, increased operational costs, and access to their cropland from the local roadway network. The design has been coordinated with A. W. Heimbach and Sons to minimize the impact of the highway project on the operation and allow flexibility for future expansion. Increased variable costs (such as manure spreading or difficulty of facility expansion) could be experienced.

Although the operation will require adjustments to overcome these adversities, this large operation would continue to be a viable dairy farm operation with or without the highway impacts. The permanent condition of the ALCAB Preferred Alternative will allow A. W. Heimbach and Sons to remain economically viable.

2. Hummel Brothers Farms (Jon and Kyle Hummel) – Beef Cattle and Crop Producers

The Hummel brothers have two bases of operation, one in Snyder County and one in Northumberland County. One base of the Hummel brothers' operation is located in Monroe Township, Snyder County, along Stetler Avenue to the immediate west of Shamokin Dam Borough, as shown on Exhibits 14, 17, and 18. The operation is adjacent to Talen Energy's Southern Ash Basin. Jon Hummel and his family live at the base of operations on Stetler Avenue while Kyle Hummel and his family live in a house to the northeast of the base of operations. The Hummel farmstead on Stetler Avenue is the base of farm operations, cattle farming, and crop farming endeavors west of the Susquehanna River. The Hummel's Snyder County operation produces beef cattle and crops while the Northumberland County farm produces turkeys and crops.

Jon and Kyle Hummel are the seventh generation of the Hummel family to farm at this location. The Hummels are descendants of the founders of the village of Hummels Wharf, and the family's farming history dates back to 1803 at the present location. Jon and Kyle Hummel's father, Scott Hummel, was the previous operator of the Stetler Avenue farm, but he has retired from farming. The Hummel farmstead celebrated its two hundredth year in 2003, and the family received recognition as a Bicentennial Farm. The farm employs Jon and Kyle Hummel full time. In addition to the cattle and crop farming that takes place at the Stetler Avenue farm, Jon and Kyle Hummel are certified dealers for pioneer seed and also run this portion of the business from this main base of operations.

Recent improvements have been made to the Hummel Brothers Farms' grain storage facilities. New grain bins have been installed just north of the existing house on Stetler Road, and plans have been proposed for the addition of more grain storage just to the north of the newly installed facility.

Table 9 includes information about the current conditions. Overall, the Hummel brothers' operation relies on properties owned by others (approximately 66%). Their entire area in production encompasses approximately 1,065 acres across Snyder and Northumberland counties. The lands within the Ash Basin Focus Area that are farmed by the Hummel brothers total approximately 170 acres of owned and leased land. The Snyder County base of operation is owned by the Hummel family in a trust established by Russell Hummel, Sr.

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *ALCAB Preferred Alternative LOD*
- *ALCAB Preferred Alternative Design*
- *Focus Areas*
- *Municipalities*
- *Agricultural Zoning*
- *ASA*
- *Impacts to Operators*

Productive Farmland Operators

- *Hummel Brothers Farm*
- *Mike Thomas*
- *Existing Access*
- *Existing Access (Disrupted)*
- *Proposed Access*

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SKELLY and LOY, Inc.	March 2020

ASH BASIN FOCUS AREA

EXHIBIT 17

HUMMEL AND MIKE THOMAS OPERATIONS

PAGE 54	Scale: 1" = 600'

SOUTHERN ASH BASIN

BASE OF OPERATION (MIKE THOMAS)

BASE OF OPERATION (HUMMEL BROTHERS FARM)

HBF-15 Crop

HBF-07 Crop

HBF-06 Pasture

HBF-05 Pasture & Crop

HBF-02 Pasture

HBF-12 Crop

HBF-08 Crop

HBF-08 Crop

HBF-08 Crop

HBF-24 Pasture

HBF-09 Crop

HBF-03 Crop

HBF-01 Pasture

HBF-02 Pasture

HBF-10 Crop

HBF-11 Crop

HBF-02 Pasture

COLONIAL DRIVE

PARK RO

FISH

STET

MILLER DRIVE

PINE LANE

STETLER AVENUE

MONROE TOWNSHIP

SAMOKIN DAM BOROUGH

CHESTNUT STREET

SPRUCE STREET

TENTH AVE.

NINTH AVE.

KING AVE.

EIGHTH AVE.

N

0 300 600 Feet

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *ALCAB Preferred Alternative LOD*
- *ALCAB Preferred Alternative Design*
- *Focus Areas*
- *Municipalities*
- *Agricultural Zoning*
- *ASA*
- *Impacts to Operators*
- *Indirect Impacts to Operators*

Productive Farmland Operators

- *Godek Farm*
- *Hummel Brothers Farm*
- *Stump Valley Farm*
- *Existing Access*
- *Existing Access (Disrupted)*
- *Proposed Access*

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SKELLY and LOY, Inc.	March 2020

ASH BASIN FOCUS AREA

EXHIBIT 18

GODEK AND STUMP VALLEY FARM OPERATIONS

PAGE 55	Scale: 1" = 600'

BASE OF OPERATION (STUMP VALLEY FARM)

BASE OF OPERATION (GODEK FARM)

NORTHERN ASH BASIN

ELEVENTH AVENUE

SHENERS ROAD

CROFT LINE

MILLER DRIVE

HBF-14 Crop

HBF-12 Crop

HBF-13 Crop

SVF-09 Crop

PARK ROAD

SHAFFER ROAD

SVF-06 Crop

HBF-20 Crop

SUNBURY ROAD

JGF-01 Pasture

SVF-08 Crop

SVF-07 Crop

HBF-21 Crop

SVF-08 Crop

SVF-08 Crop

SVF-11 Crop

SUNBURY ROAD

JGF-03

SVF-10 Crop

JGF-02 Crop

SHAMOKIN DAM BOROUGH

MONROE TOWNSHIP

GRANGER HOLLOW RD

LINE

HBF-22 Crop

HBF-23 Crop

SUNBURY RD

0 300 600 Feet

TABLE 9 HUMMEL BROTHERS FARMS OPERATION SUMMARY			
Family Farm Since	1803	**Generations Since Established (Currently Farming)**	7th
Total Operation Size	1,065 acres	**Approximate Amount in Ash Basin Focus Area**	170 acres
Area of Rented Land	700 acres	**Properties Where Tenant**	12
Type of Livestock	Beef cattle, turkeys, goats, rabbits	**Typical Herd Size**	130 (60-65 beef cattle and cow/ calf pairs), 125,000 turkeys
Crops Grown	Corn, soy, wheat, small grains, tomatoes, potatoes, hay	**Purpose(s)**	livestock feed, contract sales
Cropland in Ash Basin Focus Area	133 acres	**Pasture in Ash Basin Focus Area**	37
Full-Time Employees	2 (Hummel brothers)	**Part-Time/Seasonal Employees**	0

The Hummel-owned land (within Snyder County) is all located within a mile and a half of the farm buildings. Corporate landowners whose land the Hummel's farm include Talen Energy, Satyam Developers LLC, Shreiner's Evangelical Church, and the Croft Valley Nursery (now owned by the Love Chapel Christian Church). Individual landowners whose land the Hummel brothers farm include Brugger, Betzer, Bingaman, Fisher, and Hummel Family Trust in the study area.

The Hummel brothers' operation in Snyder County currently produces beef cattle, contracted crops (including tomatoes and potatoes), and other crops (including corn, soy, wheat, small grains, and hay). Additionally, some livestock is raised on the Snyder County operation which is not entirely for profit; this livestock includes rabbits and goats. The Augustaville (Northumberland County) portion of the operation includes a 110-acre base of operation and is used for farming approximately 125,000 turkeys and for crop production. The current and typical herd of beef cattle and cow/calf pairs (60-65) total 130 head at the Snyder County operation. The Snyder County operation uses 324 acres exclusively for crop production, 21 acres for both crop production and pasture, and about 82 acres as permanent and overwintering pasture. An ultimate goal of the operation is to have all crop fields that are owned by the family (285 acres) fenced to allow use for pasture between crop production seasons. (Some of the current 103 acres in dual-use and permanent pasture is owned by Talen Energy).

Hummel Brothers Farms consists of multiple farm land areas that are enrolled in the Monroe Township ASA. These farm lands include HBF-01, HBF-02, HBF-03, HBF-08, HBF-11, HBF-18, and HBF-19. The lands that are farmed by the Hummel brothers' operation fall under

multiple zonings but are primarily zoned for agriculture or medium- to high-density residential uses. Soils in the impacted fields that are farmed by the Hummel brothers' operation include Allenwood gravelly silt loams, Holly silt loams, Harleton Channery silt loams, and Weikert shaly silt loams. According to The Agronomy Guide, Holly and Weikert soils can produce 100 bu/A of corn grain, Allenwood soils will produce 150 bu/A, and Hartleton soils will produce 125 bu/A.

Impacts to the Hummel brothers' operation within the Ash Basin Focus Area are illustrated on Exhibits 17 and 18. As Table 10 illustrates, direct impacts total 29.1 acres to parcels where

TABLE 10
HUMMEL BROTHERS FARMS
IMPACTED FARM PARCELS – ASH BASIN FOCUS AREA

Column A	Column B	Column C*	Column D	Column E	Column F	Column G	Column H
FAR Parcel ID No.	Parcel Owner	Existing Productive Agricultural Land	Productive Agricultural Land Impact				Remaining Land Available for Production (Acres)
			Lost to Right-of-Way (Direct) (Acres)	Left Impractical to Farm (Acres)	Left Inaccessible (Acres)	Total Productive Agricultural Impact (Acres)	
HBF-01	Hummel	30.5	6.6	0.0	0.0	6.6	23.9
HBF-02	Hummel	20.2	5.4	0.0	0.0	5.4	14.8
HBF-03	Hummel	40.1	0.8	0.0	0.0	0.8	39.3
HBF-08	Hummel Farm Trust and Morningstar Village	60.9	2.9	0.0	0.0	2.9	58.0
Subtotal – Operator-Owned Land			15.7	0.0	0.0	15.7	--
HBF-05	Talen Energy	18.8	0.6	0.0	0.0	0.6	18.2
HBF-06	Talen Energy	17.9	3.5	0.0	0.0	3.5	14.4
HBF-07	Talen Energy	11.0	8.3	0.0	0.0	8.3	2.7
HBF-12	Talen Energy	9.1	1.0	0.0	0.0	1.0	8.1
Subtotal – Rented Land			13.4	0.0	0.0	13.4	--
Total Acreage of Impacted Parcels			**29.1**	**0.0**	**0.0**	**29.1**	

Note: Total productive agricultural land impact (Column G), is derived from Column C minus Columns D, E, and F. The remaining land available for production is shown in Column H.

* *Productive agricultural land totals in Column C represent the total acreage of the farm parcel when intersected by the focus area boundary.*

there would be no indirect impacts (including unfarmable remnants and inaccessible pastures). This is approximately 17% of the owned and leased land currently farmed by the Hummel brothers' operation in the vicinity of the Ash Basin Focus Area, but it is less than 3% of the total operation owned by the Hummel brothers. Based on the total of 29.1 acres of impacts, a total of 15.7 acres of the directly impacted crop and pastureland (Parcels HBF-01, HBF-02, HBF-03, and HBF-08) is owned by the operation; the balance (13.4 acres), in cropland and multiple-use pasture/hay (Parcels HBF-05, HBF-06, HBF-07, and HBF-12), is leased land.

Given that 66% of Hummel Brothers Farms operates on leased lands, the farm operation has demonstrated its ability to manage its beef herd on land that is not primarily owned by the Hummel brothers. The permanent condition of the ALCAB Preferred Alternative will allow Hummel Brothers Farms to remain economically viable. Separate from the direct impacts to productive agricultural land, it should be noted that Kyle Hummel's house will be displaced by the ALCAB Preferred Alternative.

3. Godek Farms – Cattle and Crop Producer

Jason Godek does not own any of the land that he conducts his farming operation on, including the lands that he operates on within the Ash Basin Focus Area of the CSVT Project. Mr. Godek is a first-generation farmer, and the rented farm that he uses for the base of his operations is located outside of the study area in Franklin Township, Snyder County. Within the Ash Basin Focus Area, Mr. Godek's main operation is located at the Shaffer Farm off of Park Road (JGF-01), as shown on Exhibit 18. The Shaffer Farm on Park Road was originally established in 1867 and was previously recognized as a Century Farm. Lee Shaffer still owns this farm, but he no longer conducts any farming activities on the property and has leased it to Mr. Godek for the past 11 years. Mr. Godek also farms two other fields within the Ash Basin Focus Area, which are located off of Sunbury Road (JGF-02 and JGF-03). These fields are croplands that Mr. Godek leases from Talen Energy. Table 11 includes information about the current operation.

TABLE 11
GODEK FARMS OPERATION SUMMARY

Family Farm Since	1867 (Shaffer Farm)	**Generations Since Established (Currently Farming)**	1st
Total Operation Size	950 acres	**Approximate Amount in Ash Basin Focus Area**	56 acres
Area of Rented Land	950 acres	**Properties Where Tenant**	3
Type of Livestock	Replacement dairy heifers	**Typical Herd Size**	200 dairy heifers
Crops Grown	Corn, soy, grains	**Purpose(s)**	Sales to feed mills and private buyers
Cropland in Ash Basin Focus Area	18 acres	**Pasture in Ash Basin Focus Area**	38 acres
Full-Time Employees	2 (Jason Godek and 1 employee)	**Part-Time/Seasonal Employees**	up to 4 employees

Mr. Godek leases 56 acres within the focus area, but his total operation farms approximately 950 acres within Monroe and Franklin Townships of Snyder County. The farming operation employs Mr. Godek full time as well as up to four part-time workers, depending on the season. Mr. Godek uses the cow barn, the recently installed manure storage facility, and pasture lands at Shaffer Farm. Mr. Godek raises approximately 200 head of replacement dairy heifers at Shaffer Farm. Of the 56 acres of leased land in the focus area, the majority (38 acres) is used for raising replacement heifers and the balance (18 acres) is planted for row crops. Crops grown by Mr. Godek's operation include corn, soy, and a mix of different grains. Crops are grown to support the heifers as well as for sale to the local feed mills and other processors. The replacement heifers are sold through private sales, not local livestock auctions.

The majority of Shaffer Farm that is leased by Mr. Godek is enrolled in the Monroe Township ASA, and the entire Shaffer Farm that is leased by Mr. Godek is zoned agricultural. The fields that Mr. Godek leases from Talen Energy are not enrolled in the ASA program, and only one (JGF-03) is zoned agricultural; the other field is zoned as open reserve. Soils in the impacted fields that are leased by the Godek operation include Hartleton channery silt loam soils and Albrights silt loams. According to *The Agronomy Guide*, average yield for Harleton and Albrights soils are 125 bu/A of corn grain.

Impacts to Mr. Godek's leased land will be minimal with the ALCAB Preferred Alternative, as outlined on Table 12 and illustrated on Exhibit 18. There will be no indirect impacts (including unfarmable remnants and inaccessible pastures) to the farmable areas of Mr. Godek's operation. There will be direct impacts to the pasture lands at the Shaffer Farm (0.5 acre) and to the crop lands (4.0 acres) that Mr. Godek farms, totaling 4.5 acres to parcels (JGF-01 and JGF-02), as

TABLE 12
GODEK FARM
IMPACTED FARM PARCELS – ASH BASIN FOCUS AREA

Column A	Column B	Column C*	Column D	Column E	Column F	Column G	Column H
FAR Parcel ID No.	Parcel Owner	Existing Productive Agricultural Land	Productive Agricultural Land Impact				Remaining Land Available for Production (Acres)
			Lost to Right-of-Way (Direct) (Acres)	Left Impractical to Farm (Acres)	Left Inaccessible (Acres)	Total Productive Agricultural Impact (Acres)	
JGF-01	Shaffer	38.0	0.5	0.0	0.0	0.5	37.5
JGF-02	Talen Energy	16.4	4.0	0.0	0.0	4.0	12.4
Subtotal – Rented Land			4.5	0.0	0.0	4.5	--
Total Acreage of Impacted Parcels			**4.5**	**0.0**	**0.0**	**4.5**	

Note: Total productive agricultural land impact (Column G), is derived from Column C minus Columns D, E, and F. The remaining land available for production is shown in Column H.

* *Productive agricultural land totals in Column C represent the total acreage of the farm parcel when intersected by the focus area boundary.*

outlined on Table 12. These impacts account for approximately 8% of the land that Mr. Godek farms within the focus area but less than 1% of the land used by his overall operation. In the operator's opinion, the loss of pasture and crop production would not adversely affect the viability of the operation due to the small amount of land that is impacted and since the ALCAB Preferred Alternative will not segment the pasturelands.

4. Stump Valley Farm (Lavere Stump and Family) – Organic Dairy Producer

The base of the Stump Valley Farms operation is at the dairy farm that was previously part of the San-Lee Farms (Lee Shaffer) operation and is located just northwest and outside of the focus area on Shaffer Road. Exhibit 18 illustrates the productive agricultural fields used by Stump Valley Farms within the Ash Basin Focus Area. The Shaffer family had operated this dairy farm for more than 50 years, and Mr. Stump has operated it as an organic dairy farm for the past 5½ years. At the base of the Stump Valley Farms operation, there are many storage buildings, the barn, and milking facilities. The Stump Family lives in the farm house across Shaffer Road.

The Stump Valley Farms operation relies largely (approximately 86%) on properties owned by others. All of the property with the Ash Basin Focus Area that is farmed by Mr. Stump is leased. The operation farms a total of 361 acres. The largest areas within the Ash Basin Focus Area that are leased by the Stump operation are the croplands (SVF-08 and SVF-09) at the Shaffer Farm located off of Park Road. Additional leased croplands are located off of Sunbury Road and are owned by Messrs. Richard Deppen and Kenneth Ferry (SVF-10 and SVF-11, respectively). In total, Mr. Stump leases 63 acres within the focus area, and these fields are used entirely for crop production. The farming operation employs Mr. Stump full time with one full-time, year-round employee and members of his family part time throughout the year. At the base of the Stump Valley Farms operation (outside of the focus area), 85 head of milking cattle are raised to support the organic milking business. All of Mr. Stump's crops are grown organically and are used as feed for the operation's dairy cattle. Crops grown by Stump Valley Farms include corn, wheat, soy, and hay. Milk from the dairy cattle is then sold to local organic milk wholesalers.

A portion of the Shaffer Farm land leased by Mr. Stump (SVF-08) is enrolled in the Snyder County ASA program. All properties that are farmed by Mr. Stump are zoned for agriculture, except for one (SVF-09) which is zoned for medium-density residential development. Table 13 includes information about the current operation.

As outlined on Table 14, impacts to Mr. Stump's leased land within the Ash Basin Focus Area will be minimal with the ALCAB Preferred Alternative (refer to Exhibit 18). There will be no

TABLE 13 STUMP VALLEY FARMS OPERATION SUMMARY			
Family Farm Since	1953 (San-Lee Farms) 2012 (Stump ownership)	**Generations Since Established (Currently Farming)**	1st
Total Operation Size	361 acres	**Approximate Amount in Ash Basin Focus Area**	63 acres
Area of Rented Land	311 acres	**Properties Where Tenant**	9
Type of Livestock	Organic dairy cows	**Typical Herd Size**	85 organic dairy cows
Crops Grown	Corn, wheat, soy, hay	**Purpose(s)**	Livestock feed, organic milk buyers
Cropland in Ash Basin Focus Area	63 acres	**Pasture in Ash Basin Focus Area**	0 acres
Full-Time Employees	2 (Lavere Stump and 1 employee)	**Part-Time/Seasonal Employees**	Family members

TABLE 14
STUMP VALLEY FARMS
IMPACTED FARM PARCELS – ASH BASIN FOCUS AREA

Column A	Column B	Column C*	Column D	Column E	Column F	Column G	Column H
FAR Parcel ID No.	Parcel Owner	Existing Productive Agricultural Land	Productive Agricultural Land Impact				Remaining Land Available for Production (Acres)
			Lost to Right-of-Way (Direct) (Acres)	Left Impractical to Farm (Acres)	Left Inaccessible (Acres)	Total Productive Agricultural Impact (Acres)	
SVF-08	Shaffer	50.8	13.8	0.0	8.0	21.8	29.0
Subtotal – Operator-Owned Land			13.8	0.0	8.0	21.8	--
SVF-11	Ferry	5.7	0.8	0.0	0.0	0.8	4.9
Subtotal – Rented Land			0.8	0.0	0.0	0.8	--
Total Acreage of Impacted Parcels			**14.6**	**0.0**	**8.0**	**22.6**	

Note: Total productive agricultural land impact (Column G), is derived from Column C minus Columns D, E, and F. The remaining land available for production is shown in Column H.

* *Productive agricultural land totals in Column C represent the total acreage of the farm parcel when intersected by the focus area boundary.*

indirect impacts (including unfarmable remnants and inaccessible pastures) to the farmable areas of Mr. Stump's operation. There will be 14.6 acres direct impacts to the eastern crop lands at the Shaffer Farm (Parcel SVF-08) and 8.0 acres of land left inaccessible. Additionally, there will be 0.8 acre of direct impacts to the crop lands leased by Stump Valley Farms off of Sunbury Road (Parcel SVF-11), for a total of 22.6 acres of direct and indirect impacts to the Stump Valley Farms operation. These impacts account for approximately 36% of the land that Mr. Stump farms within the focus area but 6% of the land used by his overall operation.

Soils in the impacted fields that are leased by the Stump Valley Farms operation include Albrights silt loam soils and Leck Kill shaly silt loam soils. According to *The Agronomy Guide*, average yield for Albrights and Leck Kill soils are 125 bu/A of corn grain. Stump Valley Farms plans to continue farming the leased land within the focus area as long as it is available.

C. IMPACTS TO PRIME AGRICULTURAL LAND

The ALPP, 4 Pa Code Chapter 7, §7.301 et seq., protects the Commonwealth's "prime agricultural land" from irreversible conversion. The policy applies to productive agricultural land that has been actively farmed in at least the preceding three years. The policy classifies primary agricultural land into five priority categories: Preserved Farmland; ASAs; Clean and Green; Agricultural Zoning District; and Unique Farmland or Soil Capability Classes I, II, III, or IV.

Coordination completed with project area municipalities revealed no Preserved Farmland enrolled properties. ASAs, Agricultural Zoning, and Clean and Green parcels are shown on Exhibits 15, 16, 17, and 18. Exhibit 19 shows Soil Capability Classes I-IV that are present within the limit of disturbance (LOD) of the ALCAB Preferred Alternative.

Aerial mapping and field reconnaissance were used to determine existing locations of agricultural land in production. Tax parcel data containing ASA and zoning designations was obtained from Snyder County. Soil mapping units were obtained from the USDA Natural Resources Conservation Service for the land capability classes. Mapping analysis was completed through the use of Geographic Information Systems to calculate the acreage under production for each of the five ALPP categories. There are no impacts to preserved farmland within the three focus areas. Table 15 illustrates total ALPP impacts to the Mill/App Road Focus Area of 16.2 acres, the Acid-Bearing Rock Focus Area would impact 8.5 acres and the Ash Basin Focus Area would impact 41.5 acres of prime agricultural land.

TABLE 15
PRIME AGRICULTURAL LAND (ALPP)/DIRECT IMPACTS

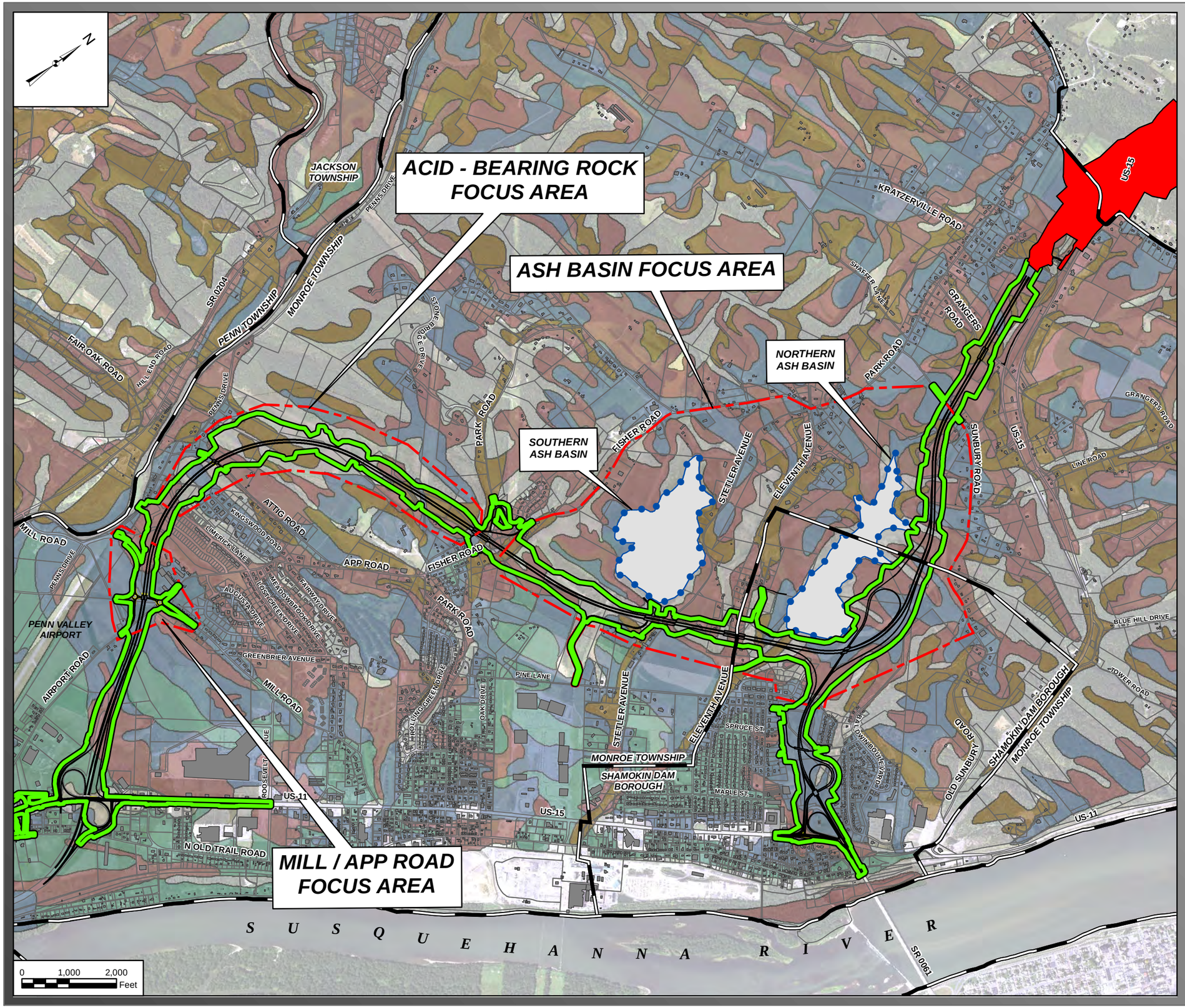
	Mill/App Road Focus Area	Acid-Bearing Rock Focus Area	Ash Basin Focus Area
First Priority: Preserved	N/P*	N/P*	N/P*
Second Priority: Ag Security Areas	2.0 acres	6.0 acres	26.8 acres
Third Priority: Clean and Green	0.0 acres	0.0 acres	0.0 acres
Fourth Priority: Agricultural Zoned	3.4 acres	2.5 acres	3.4 acres
Fifth Priority: Land Capability Classes I-IV	10.8 acres	0.0 acres	11.2 acres
Total Prime Agricultural Land:	**16.2 acres**	**8.5 acres**	**41.5 acres**

** N/P = Not Present*

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088



LEGEND

- ALCAB Preferred Alternative LOD
- ALCAB Preferred Alternative Design
- Focus Areas
- Municipalities
- Class I Soil
- Class II Soil
- Class III Soil
- Class IV Soil
- River Crossing 5 (RC5) Alternative (Under Construction)

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SOUTHERN SECTION

EXHIBIT 19

SOIL CAPABILITY CLASSES

PAGE 63	Scale: 1" = 2,000'

D. VIABILITY OF REMAINING ASA

The ASA viability was reviewed to ensure the ALCAB Preferred Alternative will not preclude the ASA from remaining economically viable within Monroe Township, Snyder County. Monroe Township has 2,484 acres of ASA as of August 6, 2019. As part of this analysis, the Snyder County Comprehensive Plan (2001) and the Monroe Township Comprehensive Plan (2016) were reviewed, along with proposed building approvals and existing and proposed utility expansions (water, sewer, and natural gas). In addition, coordination with the Monroe Township Zoning Officer was completed to further define future development plans. As of August 2, 2019, Monroe Township identified one six-lot residential development and a storage facility that have approved development plans. Neither of these approved developments are proposed within the existing Monroe Township ASA.

Further review of the Monroe Township's zoning confirmed the presence of Agricultural, Industrial, Medium-Density Residential, High-Density Residential, and Open Space throughout the majority of the ALCAB Preferred Alternative's three focus areas. The Monroe Township Comprehensive Plan (2016) identified the future land use scenario for Monroe Township as a Town Center along the U.S. Routes 11/15 corridor from the Susquehanna River to the alignment of the CSVT (see Exhibits 20 and 21). This area is planned to focus economic growth through commercial, industrial, and residential land use east and south of the southernmost interchange of the CSVT alignment at U.S. Routes 11/15. The remainder of Monroe Township consists of open space, consisting primarily of agriculture, residential, and woodlands. Although Monroe Township will share an interchange with Union Township, Union County at the northern segment of the CSVT South Section, there are currently no utilities (water and sewer service) that would accommodate development. Zoning changes would be required for development to occur in this area (see Exhibits 20 and 21).

Direct impacts associated with the ALCAB Preferred Alternative decreased the remaining ASA by 52.0 acres, or 2%, within the entire Southern Section. Of the 52.0 acres, 29.2 acres are within the Ash Basin Focus Area, 20.5 acres are within the Acid Rock Focus area, and 2.3 acres are within the Mill/App Road Focus Area. A total of 2,432 acres will remain within the Monroe Township, Snyder County ASA. Based on the analysis, it is anticipated the Monroe Township ASA will continue its economic viability.

FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- ALCAB Preferred Alternative Design
- Ash Basin
- Focus Areas
- Local Roads
- Public Water Supply (2019)
- Municipalities
- ASA
- State Roads

Existing Zoning

- Agricultural Preservation
- Agricultural
- Airport
- Commercial
- Industrial
- Open Space
- Residential
- Village Mixed Use

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SOUTHERN SECTION

EXHIBIT 20

EXISTING ZONING

PAGE 65	Scale: 1" = 2,000'

ACID - BEARING ROCK FOCUS AREA

ASH BASIN FOCUS AREA

NORTHERN ASH BASIN

SOUTHERN ASH BASIN

MILL / APP ROAD FOCUS AREA

JACKSON TOWNSHIP

PENN TOWNSHIP

MONROE TOWNSHIP

SHAMOKIN DAM BOROUGH

PENN VALLEY AIRPORT

KRATZERVILLE ROAD

GRANGERS ROAD

PARK ROAD

FISHER ROAD

ATTIC ROAD

APP ROAD

MILL ROAD

FAIR OAK ROAD

HILL END ROAD

FRANK DRIVE

KINGSWOOD ROAD

LAKEBECK LANE

AUGUSTA DRIVE

MEADOWBROOK DRIVE

FARM LANE

GREENBRIER AVENUE

PENNS CREEK

LOST CREEK DRIVE

ROLLING GREEN DRIVE

OAK DRIVE

ARIEL LANE

STETLER AVENUE

ELEVENTH AVENUE

SPRUCE ST.

MAPLE ST.

AIRPORT ROAD

N OLD TRAIL ROAD

OLD SUNBURY ROAD

SUNBURY ROAD

PARKERS ROAD

APPS ROAD

BLUE HILL DRIVE

TOWER ROAD

DEWEY ROAD

US-15

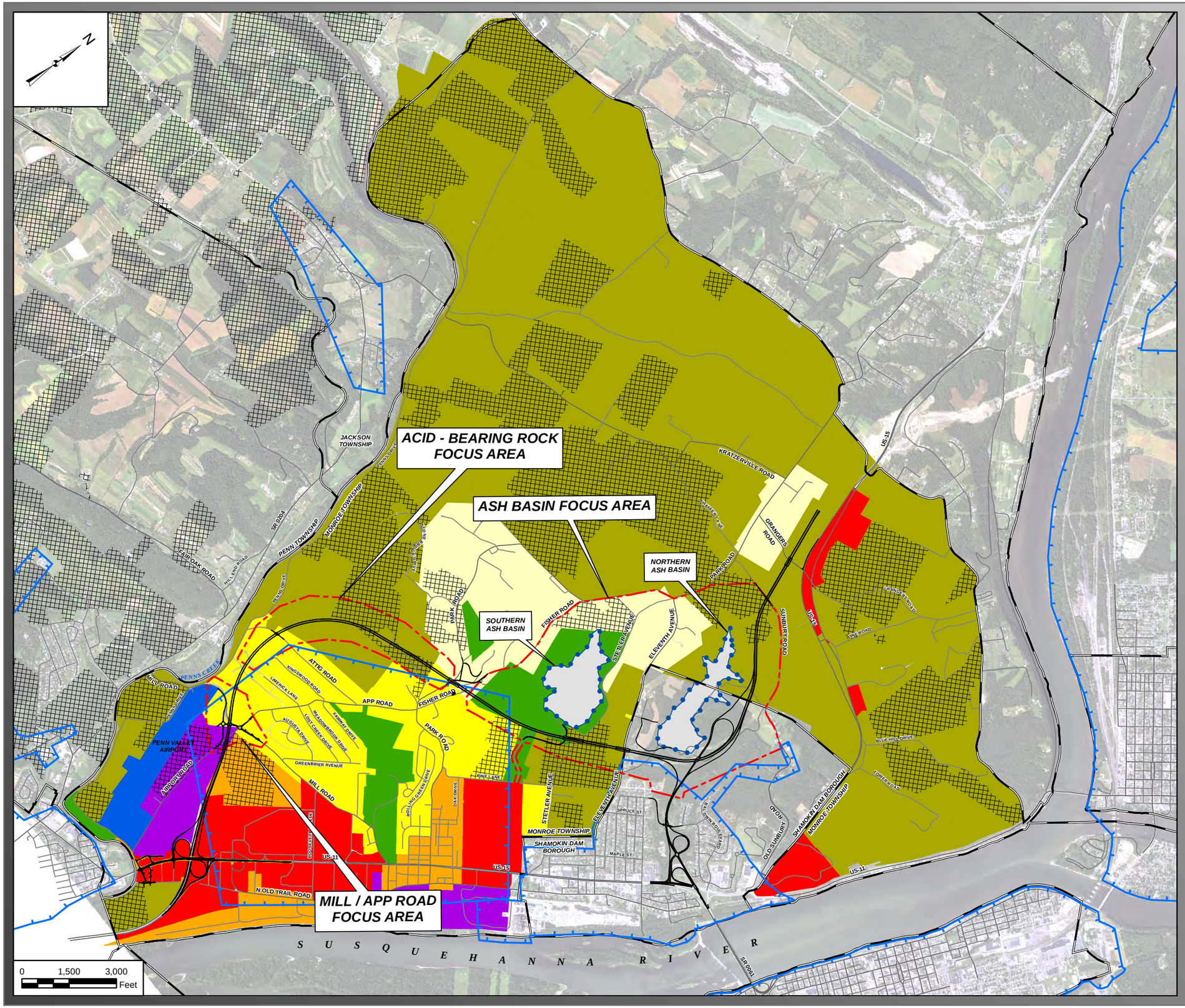
US-11

SR 0204

SR 1060

S U S Q U E H A N N A R I V E R

0 1,500 3,000 Feet



FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- ALCAB Preferred Alternative Design
- Ash Basin
- Focus Areas
- Local Roads
- Public Water Supply (2019)
- Municipalities
- ASA
- State Roads

Future Land Use

- Agricultural
- Airport
- Commercial
- Industrial
- Open Space
- Residential
- Rural Residential
- Village Mixed Use

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EXHIBIT 21

FUTURE LAND USE

PAGE 66	Scale: 1" = 2,000'

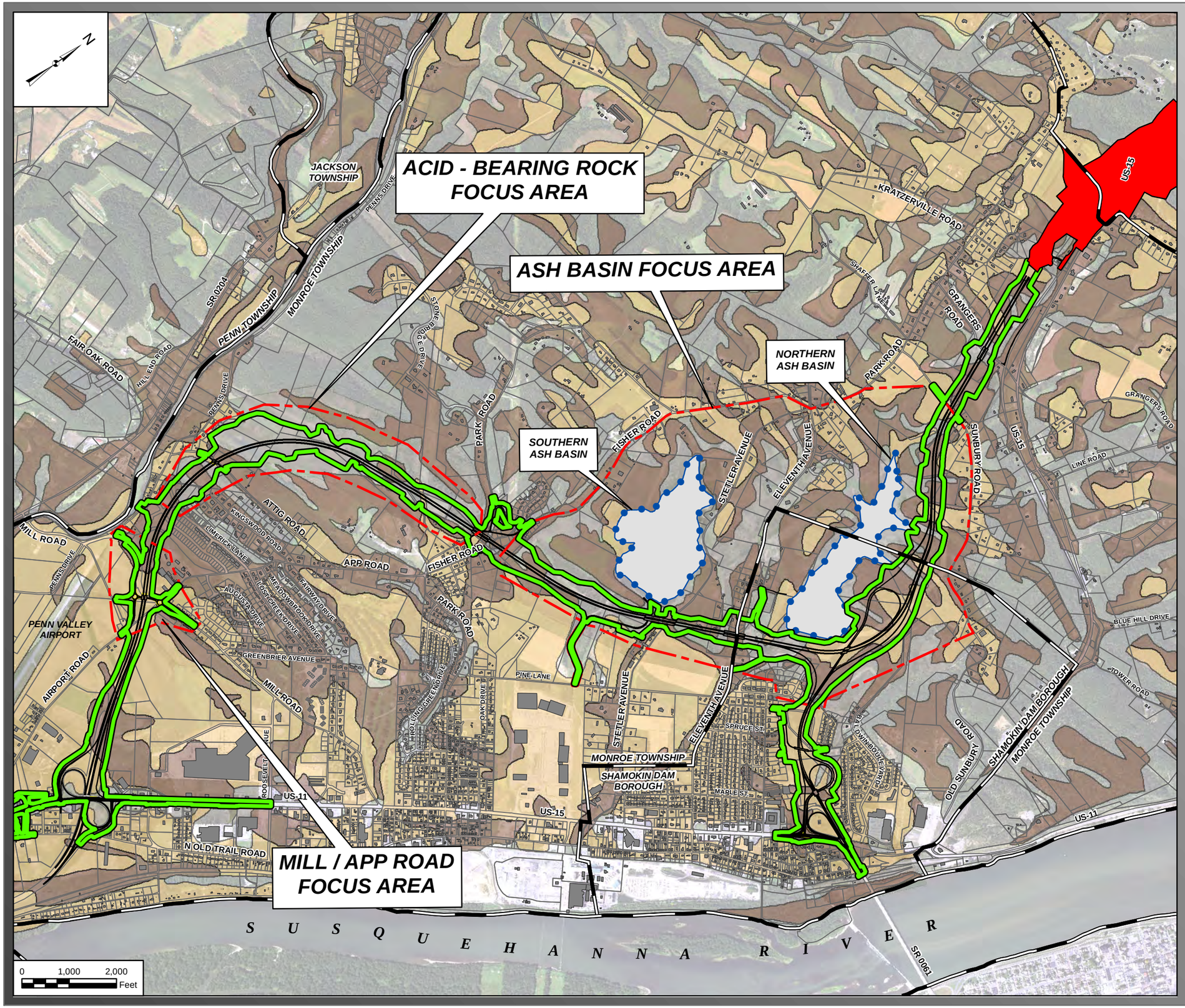
VI. FPPA IMPACT SUMMARY

This section of the FAR presents findings relative to the 7 U.S.C. §4201, Farmland Protection Policy Act of 1981 for information purposes. The FPPA defines "farmland" as prime or unique farmland soils, and farmland soils of statewide importance and locally important soils. These are considered areas with soil conditions that produce the highest yields with few erosion concerns and require little need for the implementation of soil conservation management practices. Soil mapping units were obtained from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service – Soil Data Mart. Mapping analysis was completed through the use of Geographic Information Systems to calculate the area of prime/unique farmland soils and farmland soils of statewide/local importance that would be directly converted to a non-agricultural use due to the required right-of-way for the alternative. Farmland soils already converted to urban use or existing transportation use were not included in the assessment (see Appendix E). For the purpose of this assessment, the entire SR 0015, Section 088 CSVT Southern Section was evaluated at the request of the USDA – Natural Resources Conservation Service. Exhibit 22 illustrates the specific area of the referenced soils within the three focus areas.

Table 16 outlines the impacts to FPPA resources. The ALCAB Preferred Alternative would directly impact 141.1 acres of prime farmland soils and 173.8 acres of Statewide Important Farmland Soils, for a combined total of 314.9 acres of FPPA soils impacted. Alternatives were designed to minimize right-of-way taking and associated impacts to FPPA farmland. However, due to the widespread nature of FPPA farmland throughout the three focus areas, impacts to FPPA farmland are unavoidable. Impacts to FPPA farmland for the ALCAB Preferred Alternative necessitated completion of a Farmland Conversion Impact Rating (FCIR).

TABLE 16
S.R. 0015, SECTION 88 – CSVT SOUTHERN SECTION – FPPA IMPACT SUMMARY

Prime Farmland Soils	141.1
Statewide Important Farmland Soils	173.8
FPPA Farmland Total:	314.9
FCIR (Site Assessment + Land Evaluation) = Total	104 + 48 = 152



FARMLAND ASSESMENT REPORT

central Susquehanna Valley transportation project

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- ALCAB Preferred Alternative LOD
- ALCAB Preferred Alternative Design
- Focus Areas
- Municipalities
- Farmland of Statewide Importance
- Prime Farmland
- River Crossing 5 (RC5) Alternative (Under Construction)

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SOUTHERN SECTION

EXHIBIT 22

PRIME AND STATEWIDE SOILS

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A Site Assessment Criteria rating total was calculated for the ALCAB Preferred Alternative. The Natural Resources and Conservation Service (NRCS) completed parts of the form, and a relative value was obtained and added to the site assessment criteria to obtain a total value of 152. A total value of over 160 points requires justification or further analysis. If the point totals are below 160, additional alternatives to avoid, minimize, or mitigate impacts on FPPA farmland are not required pursuant to the FPPA and the required area is considered committed to urban development.

The Site Assessment Criteria resulted in 104 points within Part VI of the FCIR corridor assessment points, and the NRCS staff calculated 48 points within Part VII for a total of 152 points for the ALCAB Preferred Alternative. The FCIR Form and NRCS response are provided in Appendix E.

VII. CONCLUSION

Based on past and recent engineering/environmental studies summarized in this FAR, PennDOT concludes that there is no reasonable and prudent alternative to the conversion of productive agricultural land for the development of the CSVT Project in Snyder County, Pennsylvania.

Design refinements were required for three "focus areas" including the Mill/App Road Area, the Acid Bearing Rock Area, and the Ash Basin Area. In the Mill/App Road Focus Area, several modifications were required to reduce the skew of the CSVT Mainline bridge. These modifications included 1) realignment of Mill Road and Airport Road and 2) the addition of the two roundabouts in place of the two "T" intersections to improve intersection sight distance, safety, and capacity (Option 3-2). In the Acid-Bearing Rock Focus Area, design modifications, including shifting the CSVT Mainline alignment, were required to significantly reduce potential disturbances to ABR. In the Ash Basin Focus Area, three options were designed to avoid the impacts to the ash basins. The Eastern Alternative was advanced based on the reduced environmental/social impacts. Therefore, the ALCAB Preferred Alternative includes Option 3-2 in the Mill/App Road Focus Area, the CSVT Mainline shift in the Acid-Bearing Rock Focus Area, and the Eastern Alternative in the Ash Basin Focus Area. These three modifications are submitted as the updated **ALCAB Preferred Alternative** because it would best meet the project needs to:

- Reduce Congestion and Accommodate Growth,
- Improve Safety,
- Separate Through Traffic from Local Traffic
- Improve constructability of the CSVT Mainline bridges over Mill Road,
- Avoid or minimize excavation of ABR, and
- Avoid all impact to the ash basins.

In addition, the **ALCAB Preferred Alternative** reduces impacts to productive farmlands and wetlands compared with the previously preferred DAM Alternative, and it mimimizes residential displacements. Although it would impact farm operations and productive agricultural land as detailed in this report, farm operations will continue to maintain economic viability. The ALCAB Preferred Alternative would not adversely influence the long-term viability of the remaining ASAs of project area municipalities.

VIII. REFERENCES

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U.S. Department of Transportation – Federal Highway Administration and PennDOT Engineering District 3-0, *Central Susquehanna Valley Transportation Project, Supplemental Environmental Assessment – Ash Basin Focus Area*, May 31, 2018.

IX. LIST OF PREPARERS

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Jason Gardner, Geotechnical Engineer

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Melody Matter, Traffic Engineer
Cody Morris, Transportation Engineer

APPENDICES

APPENDIX A -
CSVT ALCAB ADJUDICATION #1 2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF AGRICULTURE
AGRICULTURAL LANDS CONDEMNATION APPROVAL BOARD

IN RE:	Central Susquehanna Valley Transportation Project in Snyder, Union and Northumberland Counties	: : : : :	Docket No. AG-2005-1

ADJUDICATION AND ORDER

Date of Hearing: March 31, 2005

Jackie Wiest Lutz
Hearing Officer

HISTORY

This matter is before the Agricultural Lands Condemnation Approval Board (hereinafter "ALCAB" or "Board") pursuant to a request filed by the Honorable Allen D. Biehler, P.E., Secretary of Transportation on February 24, 2005 for approval to convert productive agricultural lands located in Snyder, Union and Northumberland Counties, PA to highway use.

By letter dated March 4, 2005, D. Robert Davidson, on behalf of ALCAB, notified the following officials of the scheduling of a hearing to take place on March 31, 2005 at 9:30 a.m. at the Crossroads Church of the Nazarene, 71 Nazarene Lane, Milton, Northumberland County, PA:

Dennis C. Wolff, Secretary of Agriculture;
Cheryl L. Cook, Esquire, Chairperson, ALCAB;
Joanne R. Denworth, Esquire, ALCAB;
Robert Janecko, ALCAB;
Steven W. Taglang, ALCAB;
Norman Morrison, ALCAB;
Russell Orner, ALCAB;
Jackie Wiest Lutz, Esquire, Hearing Officer;
Bill Wehry, PDA Deputy Secretary;
Sandra E. Robison, Director, BFP;
Dwight-Jared Smith, Esquire, Pennsylvania Department of Agriculture (PDA);
Paul Schatz, PDA Region 2 Director;
Northumberland County Commissioners;
Snyder County Commissioners;
Union County Commissioners;
Point Township, Northumberland County, Board of Supervisors;
West Chillisquaque Township, Northumberland County, Board of Supervisors;
Monroe Township, Snyder County, Board of Supervisors;
Northumberland County Agricultural Land Preservation Board;
Snyder County Agricultural Land Preservation Board;
Union County Land Preservation Board;
Northumberland County Conservation District;
Union County Conservation District; and,
Snyder County Conservation District.

In addition, notification of the scheduling of the ALCAB hearing was sent to the following landowners, owner/operators, lessee operators and ALCAB Hearing requester, respectively:

Landowners:
Eastern Communities Limited Partnership;
Malcolm S. and Susan L. Debo;
Glenn L. Herman;
PP&L;
Russell L. Hummel;
Roseann E. Seebold Living Trust;
Susquehanna Valley Mall Associates;
Carl L. and Judith E. Dunkelberger;
Steve R. and Kathryn A. Mertz;
Jeffrey D. Mertz;
Thomas O. and Anne L. Gates Living Trust;
John H. and Judy A. Kohl;
Richard D. and Leah Bingaman;
Rhoads Farms, Inc.; and,
John W. and Dorothy Sholly

Owner/operators:
Dianna L. Loss;
Albert W. and Mary E. Heimbach;
Lee A. and Sandra J. Shaffer;
Michael A. and Rosanne A. Thomas;
Donna R. Snyder; and,
Douglas W. Mertz

Lessee operators:
Scott L. and Karen A. Hummel;
Alanson E. Johnson;
Daryl L. Beiler;
Joseph S. Hilbish; and,
John Kohl

ALCAB Hearing Requester
Daryl Kerns, P.E., PA DOT

The Notice of public hearing was posted at the following locations:

(1) Region II Office, PA Department of Agricultural;
(2) Northumberland County Courthouse;
(3) Northumberland County Conservation District Office;
(4) Point Township Building;
(5) Montandon Post Office, West Chillisquaque Township;

(6) Snyder County Courthouse;
(7) Snyder County Conservation District Office;
(8) Monroe Township Building;
(9) Union County Courthouse;
(10) Union County Conservation District Office; and,
(11) Union Township Building

In addition, the public hearing notice was published in the Daily Item.

The hearing was held as scheduled on March 31, 2005 before Hearing Officer, Jackie Wiest Lutz, Esquire and the following Board members: Cheryl L. Cook, Esquire, Chairperson, Robert J. Janecko, Steven Wm. Taglang, Norman Morrison, Russell Orner and Joanne Denworth.

At the close of the hearing, Cheryl L. Cook, Chairperson, ALCAB, announced ALCAB's decision to approve the entire project as proposed by PennDOT, with reservations.

The Board's written decision follows.

FINDINGS OF FACT

1. On February 24, 2005, the Honorable Allen D. Biehler, P.E. Secretary of Transportation, submitted a request to the Secretary of Agriculture to schedule an ALCAB hearing so that the Board could consider a request by the Pennsylvania Department of Transportation (PennDOT) to approve the taking and conversion of productive agricultural lands located in Snyder, Union and Northumberland Counties, PA for a highway project known as the "Central Susquehanna Valley Transportation (CSVT) Project. (PDA Exhibit 1[1])

2. The CSVT Project has been undergoing engineering and environmental studies by PennDOT and representatives of the CSVT Project consultant team for approximately 10 years. (N.T. 21-22, 25; FAR)

3. In years prior to 1995, local residents, businesses and public officials instituted efforts to have improvements to the roadway system studied due to concerns about heavy traffic congestion and truck volume, particularly along U.S. Routes 11 and 15 through the "Golden Strip" of Shamokin Dam and U.S. Route 11 to Pa Route 147 in Northumberland, PA. (N.T. 25; FAR, pgs. 1-8)

4. In the year 2000, population in the study area was just under 72, 000 people; employment totaled just over 41,000; and, in 2001, there was a counted volume of 44,600 vehicles per day on U.S. Routes 11 and 15. (N.T. 28, 33-35; PennDOT Exhibit 6)

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[1] Included with Exhibit 1 of the Pennsylvania Department of Agricultural (PDA) is the Farmland Assessment Report (FAR) prepared by PennDOT and included as part of PennDOT's application and request for hearing. The FAR is also included on PennDOT's Exhibit list as Exhibit 1. For ease of reference, throughout this decision reference to this document will be referred to as "FAR" as opposed to PDA Exhibit 1.

5. By design year 2030, those numbers are projected to increase by about 10% in population to just over 79,000 people, 22% in employment to about 50,000 jobs and 107% in traffic volume to approximately 92,500 vehicles. (N.T. 33-35)

6. Truck traffic represents approximately 13% of the traffic volume in the study area; in 2001 there was a counted volume of 2,500 trucks per day on the same section of U.S. Routes 11 and 15. (N.T. 35-36; PennDOT Exhibit 7)

7. By design year 2030, truck traffic is projected to more than double to 11,250 trucks per day. (N.T. 36; PennDOT Exhibit 7)

8. Based upon a study of land use, demographics and current and future transportation conditions in the study area (the "study") the CSVT Project is designed to solve three major problems in the transportation system ("Project needs"):

a. Reduce congestion and accommodate growth;

b. Improve Safety; and,

c. Separate thru traffic from local traffic.

(N.T. 28-29; FAR, pgs. 8-9)

9. The CSVT Project is proposed as an approximate 12 mile four-lane, limited - access highway facility between the northern end of the Selinsgrove Bypass in Monroe Township, Snyder County, PA (which is also known as the U.S. Routes 11/15 Expressway), to PA Route 147 in West Chillisquaque Township, Northumberland County, PA, just south of the PA Route 147/Route 45 interchange. (N.T. 20-21; FAR, p. 1)

10. The CSVT Project also proposes connections with interchanges to transportation routes between the northern and southern termini of U.S. Routes 11 and15, PA Route 61,

U.S. Route 15 south of Lewisburg, and PA Route 147 north of Northumberland. (FAR, p. 1)

11. The initial project study area that was identified by PennDOT was very large, encompassing over 50,000 acres. (N.T. 63; PennDOT Exhibit 13)

Engineering Constraints:

12. The following natural and manmade features in the study area presented engineering constraints for PennDOT in planning its evaluation of possible alternatives: (PennDOT Exhibit 12; FAR, pgs. 20-24)

a. Throughout the West Branch and the North Branch of the study area, the Susquehanna River, Penns Creek and several small streams that cut into hills, result in a change of grade relatively quickly. (N.T. 47; FAR)

b. Floodplains are associated with the Susquehanna River and its tributaries; placement of an obstruction in the floodways can impact floodwater elevations. (N.T. 48; PennDOT Exhibit 12; FAR, pgs. 20-24)

c. Sinkhole prone geologic formations, particularly limestone, which is prone to solution when water runs through it, underlie portions of the study area; safety issues are associated with sinkhole prone geology because highways and bridges can collapse. (N.T. 50-51; PennDOT Exhibit 12; FAR, pgs. 20-24)

d. An unregulated landfill is located in Monroe Township; with any landfill, particularly one that is unregulated, there is a potential for hazardous waste. (N.T. 51-52)

e. Three ash basins are located in the study area. Ash basin one is still in operation and is located adjacent to a coal-fired electric power plant near the Susquehanna River; Ash basins two and three are no longer in operation, but, they were

created by building dams across valleys to capture fly ash and are located upslope of the power plant. The integrity of the dams and the foundation stability of the ash material deposited in the valleys behind the dams is a concern because if an alignment were to run across the ash basins where the saturated, fine grained material is not compacted, settlement will occur and there is the potential for dam failures. (N.T. 52-54; PennDOT Exhibit 12; FAR, pgs. 20-24)

Environmental Constraints:

13. The following features in the study area presented environmental constraints for PennDOT in planning its evaluation of possible alternatives: (PennDOT Exhibit 13)

a. A number of developed areas currently exist in Northumberland Borough and Shamokin Dam Borough. (N.T. 64; PennDOT Exhibit 13)

b. Productive Agricultural Land and Agricultural Security Areas (ASA's) are scattered throughout the study area, with a greater portion located toward the western side of the valley. (N.T. 63; PennDOT Exhibit 13; FAR)

c. Wetlands, which are protected by section 404 of the Clean Water Act and Chapter 105 of the Pennsylvania Dam Safety and Waterway Management Act, are located along water areas in the study area, including Penns Creek, Chillisquaque Creek and smaller tributaries that wind their way down toward the Susquehanna River. (N.T. 65; PennDOT Exhibit 13; FAR, p. 46)

d. The FEMA 100-year flood plain areas flow along the Main Stem and the West Branch of the Susquehanna River. (N.T. 64-65; PennDOT Exhibit 13; FAR, p. 46)

e. Over 240 historic features are located throughout the study area, including 24 that have either been registered on the National Register or are eligible to be registered

on the National Register. One such historical feature is the existing power plant located near the ash basins in Monroe Township. (N.T. 65-66, 68, 71; PennDOT Exhibit 13; FAR)

f. Many archaeological sites were identified along the water areas; both archaeological sites and historical properties that are registered or eligible for listing on the National Register are protected by section 106 of the National Historic Preservation Act. (N.T. 66-67; FAR)

g. The ash basins and unregulated landfill are also environmental constraints. Due to the economic impact to the existing power plant, any disruption to the ash basin would require a reconfiguration of the ash basin which, in turn, would require acreage for distribution of the fly ash material. Disruption of the unregulated landfill has the potential to negatively impact groundwater and wells of residents who live in the development surrounding the landfill. (N.T. 68)

14. Due to the size of the study area, a thorough and detailed evaluation of alternatives was conducted in two phases – Phase I and Phase II – and broken up into sections. (N.T. 73-75; PennDOT Exhibits 14, 15, 16 and 31)

15. Phase I was a preliminary alternative analysis that evaluated a wide range of alternatives; Phase II consisted of a more detailed alternative analysis that narrowed the range of alternatives. (N.T. 73-74; FAR, S-5)

16. Anything studied to the south of Winfield along U.S. Route 15 was considered Section 1; anything studied to the north of Winfield along U.S. Route 15 was considered Section 2. (N.T. 75; PennDOT Exhibit 15)

17. In Section 1, the key issue considered by PennDOT was how the different alternatives connected with the existing roadway system; the key issue in Section 2 was the flood plain because the river crossing played a significant role in the north end of the study area. (N.T. 75-76)

Phase I: Preliminary Development and Evaluation of Section 1 Alternatives:

18. Two types of alternatives were evaluated for the entirety of the study area: (1) alternatives on the existing alignment of the roadway system; and, (2) alternatives on new alignment. (N.T. 77)

(A) Alternatives on Existing Alignments (Section 1):

19. Three alternatives were considered for the existing alignment of the roadway system: (a) a "no-build" alternative, meaning that that the roadway system will remain as is with no improvements; (b) a mass transit alternative, which examines options to the use of vehicles for travel, such as implementation of or expansion of bus routes or passenger rail service; and, (c) Transportation Systems Management Alternatives (TSM Alternatives), which considers upgrades to the existing system either through the addition of turning lanes at intersections or new lanes between intersections, as well as minor roadway relocations. (N.T. 77-79; FAR, pgs. 57-58)

20. In Phase I, the "no build" alternative was considered to be not prudent because it fails to satisfy any of the project needs; however, it was carried forward into Phase II of the analysis in the event that no other reasonable or prudent alternatives were identified. (N.T. 77; PennDOT Exhibit 14)

21. The mass transit alternative does not meet any project needs and was dismissed in its entirety in Phase I because mass transit, i.e., bus routes, rail lines, etc. does not

currently exist in the study area. The creation of a mass transit system would not reduce congestion or improve safety because much of the existing traffic in the roadway system is thru traffic which would not be accommodated by a mass transportation system. (N.T. 77-78; FAR, p. 58)

22. The TSM Alternatives were also dismissed in their entirety during PennDOT's preliminary evaluation. Although the addition of turning lanes at intersections or new lanes between intersections has the potential to reduce congestion and improve service by allowing traffic to flow better, it would not remove trucks from the roadway system as a separation of the thru traffic from the local traffic and, therefore, would not improve safety. Additionally, over 250 residences and 106 businesses would have been affected by a major upgrade of the existing roadway network. (N.T. 78-81; FAR, pgs. 58-59)

(B) <u>Alternatives on New Alignments:</u>

23. Ten (10) alternatives for new alignments (A, B, D, BA, C, F, G, E, BE and DA) and two connector options (the Route 61 connector and the Route 15 connector) were developed in Section 1 (the area south of Winfield along U.S. Route 15). In developing these alternatives, the concept was to use the stub located at the northern end of the Selinsgrove Bypass on U.S. Routes 11 and 15 as the starting point, bypass the heavily developed areas of Monroe Township and Shamokin Dam Borough, and then end at the southern end with a connection to a section two alternative. (N.T. 81-82; PennDOT Exhibit 15; FAR, pgs. 59-70)

24. Alternative A was developed to minimize the impact to existing development in Monroe Township and Shamokin Dam Borough and to avoid much of the farmland located toward the west side of the valley. Alternative A begins as a continuation of the

Selinsgrove Bypass and connects to the existing roadway network in Shamokin Dam Borough by way of a Route 61 or Route 15 Connector. Alternative A proposes an interchange at the Selinsgrove Bypass stub and at either the Route 61 or Route 15 Connector. (N.T. 83; PennDOT Exhibit 15; FAR, pgs. 59-70)

25. Alternatives B and D were developed in an effort to use the low terrain along Penns Creek, Hollow Run and Winfield Creek in Union and Monroe Townships. Alternative B also begins as a continuation of the Selinsgrove Bypass but then heads to the west side of the valley along Penn's Creek and turns northeast to take advantage of the terrain along Hollow Run. Alternative D travels the same path as Alternative B except that it continues further along Penns Creek to the northwest before turning northeast to connect with the Section 2 Alternatives. (N.T. 83; PennDOT Exhibit 15; FAR, pgs. 59-70)

26. Alternative BA is a combination of Alternatives A and B that was developed as a result of resident input. Alternative BA proposes to connect to the existing roadway network in Shamokin Dam Borough through either the Route 61 or Route 15 Connector and would have the same two interchanges as Alternative A. (PennDOT Exhibit 15; FAR, pgs. 59-70)

27. Alternatives C, F, and G were developed in an effort to use the undeveloped land between the existing roadway network and the Susquehanna River. (N.T. 83; FAR, pgs. 59-70)

28. Alternative C begins near the end of the Selinsgrove Bypass, but instead of using the existing stub, it travels north using the alignment of the Old Susquehanna Trail, which was the original main north/south route through the study area. The Old Susquehanna

Trail currently serves as an alternate route to U.S. Routes 11 and 15 through the study area. Alternative C connects to Alternative A north of the Route 61 Connector and allows for a roadway that would connect to the existing roadway network in Shamokin Dam Borough by way of a Route 61 or Route 15 Connector. Alternative C would have two interchanges, one at the Selinsgrove Bypass, and the other at either the Route 61 or Route 15 Connector. (PennDOT Exhibit 15; FAR)

29. Alternative F follows the same path as Alternative C except that it moves closer along the river and has a direct interchange with U.S. Routes 11 and 15 in the Shamokin Dam area. Alternative F would have two interchanges, one at the Selinsgrove Bypass, and the other at U.S. Routes 11 and 15 near Stetler Avenue. (PennDOT Exhibit 15; FAR)

30. Alternative G follows the same route as Alternative C except that it continues north along the Susquehanna River and passes under the end of the PA Route 61 Bridge. Alternative G would use an existing alignment on U.S. Route 15 to join the Section 2 Alternatives and would require no connecting roadways. Alternative G would have an interchange at the Selinsgrove Bypass and at PA Route 61. (PennDOT Exhibit 15; FAR)

31. Alternative E begins as a continuation of the Selinsgrove Bypass but follows a more direct route through the valley to the Winfield area. (PennDOT Exhibit 15; FAR)

32. Alternative BE is a combination of Alternatives B and E and was also developed based on citizen input. (PennDOT Exhibit 15; FAR)

33. Alternative DA was developed based on comments that were received by PennDOT at a Public Meeting in June, 1997. This alternative attempts to combine the best qualities of Alternatives D and A. It begins like Alternative D as a continuation of the Selinsgrove Bypass, switches to the alignment of Alternative A, and then diverges

from Alternative A and makes use of undeveloped land that is part of Ash Basin No. 3. Alternative DA allows for connection to the existing roadway network in Shamokin Dam Borough through use of either the Route 61 or Route 15 Connector. Consistent with Alternative A, this alternative would have an interchange at the Selinsgrove Bypass stub and at either the Route 61 or Route 15 Connector. (PennDOT Exhibit 15; FAR)

34. The alternatives for new alignments were grouped into three families of alternatives, depending on how they managed traffic – the Blue Family, the Yellow Family and the Red Family. (N.T. 83; PennDOT Exhibit 14; FAR).

Blue Family of Alternatives:

35. The Blue Family of Alternatives includes Alternatives D, B, BE and E, which represent the western group of alternatives. The new alignments proposed by these alternatives are so far away from the existing roadway network that it was impossible to develop any type of connection back to the existing roadway network that would not become as long as the existing system. Since there is no connection from these alternatives back to the existing system, specifically to Route 61 and the Veteran's Memorial Bridge into Sunbury, 30 percent of the traffic that currently uses U.S. Routes 11 and 15 in this area would not use these alternatives. In addition, Alternative D had the highest impact to productive agricultural land of all of the preliminary alternative studies and Alternative E had the highest impact to ASA's. Because these alternatives do not meet the project needs of reducing congestion, improving safety and separating thru and local traffic effectively, the entire Blue Family of Alternatives was dismissed during the preliminary analysis as not prudent. (N.T. 84-85; PennDOT Exhibit 14; FAR)

Yellow Family of Alternatives:

36. The Yellow Family of Alternatives includes Alternatives A, BA, DA, G and C, which represent the eastern group of alternatives. In evaluating these alternatives, both the Route 15 connector and the Route 61 connector were studied as a means to get traffic from these alternatives back to the existing roadway network. (N.T. 85-86; PennDOT Exhibit 14; FAR)

37. The Route 15 connector is located more to the north part of Shamokin Dam Borough and has an interchange only with the mainline. This connecting roadway option was eliminated from further consideration during Phase I because it did not provide direct access to Route 61. (N.T. 86)

38. The Route 61 connector is a one mile long, two-lane connecting roadway; the Route 61 connector runs through Shamokin Dam Borough and has an interchange on the mainline that connects with the Existing Route 61 interchange and then continues across the Veteran's Memorial Bridge into Sunbury. (N.T. 86-87)

39. Alternatives A, BA and DA are all able to use the U.S. Route 61connector as a connecting roadway option. (N.T. 86-87)

40. The Route 61 connector as well as Alternatives A, BA and DA were all carried forward into the Phase II analysis for further study. (N.T. 86-87)

41. Alternatives G and C run along the Susquehanna River in the undeveloped land between the Old Susquehanna Trail and U.S. Routes 11 and 15. (N.T. 87; PennDOT Exhibit 14; FAR)

42. Alternative G has a direct interchange between the main line and the Route 61 interchange and bridge; however, it impacts seven potentially eligible historic properties;

a public park located on both sides of Route 61 and has both a transverse and longitudinal encroachment on the flood plain. Because of these factors, Alternative G was determined not to be prudent or reasonable and was dismissed during the preliminary alternatives development. (N.T. 87-88; PennDOT Exhibit 14; FAR)

43. Alternative C, like Alternative G, is located between the existing network and the Susquehanna River; however, instead of continuing along the river it swings up through Shamokin Dam Borough and uses a shortened version of the Route 61 connector for access back to the existing system and the Veteran's Memorial Bridge. Alternative C was determined to meet all of the project needs and was carried into the Phase II analysis for further study. (N.T. 89; PennDOT Exhibit 14; FAR)

Red Family of Alternatives:

44. Alternative F is the only alternative in the Red Family. This alternative provides a direct interchange with U.S. Routes 11 and 15 and uses a small portion of the existing system to access Route 61. Because it was believed that enough traffic would use this route to meet the project need of reducing congestion and improving safety, Alternative F was carried into the Phase II analysis for further study. (N.T. 89-90; PennDOT Exhibit 14; FAR)

Phase I: Preliminary Development and Evaluation of Section 2 Alternatives:

(A) Alternatives on Existing Alignments:

45. The "no build" alternative was considered not prudent because it fails to satisfy any of the project needs; however, it was carried forward into Phase II of the analysis in the event that no other reasonable or prudent alternatives were identified. (N.T. 91)

46. The mass transit alternative was dismissed in its entirety and not carried forward into the Phase II analysis as failing to meet any project needs for the same reasons that were enumerated in Section 1. (N.T. 91)

47. The TSM Alternatives were also dismissed as not prudent and not reasonable during PennDOT's preliminary evaluation based upon similar concepts that were applied in Section 1. In order to satisfy project needs the roadway needed to be widened and improvements needed to be made at various intersections. In order to accomplish this objective, numerous homes and businesses would have been affected. (N.T. 91-92)

(B) Alternatives on New Alignments:

48. Four River Crossing (RC) Alternatives were considered in Section 2 during the Preliminary Development and Evaluation of Alternatives: River Crossing D (RCD), River Crossing 1 (RC1), River Crossing 2 (RC2) and River Crossing 3 (RC3). (FAR)

49. All four River Crossing Alternatives were designed to begin with an interchange on U.S. Route 15 west of the West Branch Susquehanna River, cross the West Branch Susquehanna River on a new structure, bypass Northumberland Borough, and end at the southern end of the widened section of PA Route 147 just south of the interchange between PA Route 147 and PA Route 45. The concept was to avoid the heavily developed area of Northumberland. (N.T. 92; PennDOT Exhibit 16; FAR)

50. RCD connects with Alternative D in Section 1. Because Alternative D was dismissed in Section 1 as not meeting projects needs, RCD was, likewise, dismissed as not prudent. (N.T. 92; PennDOT Exhibit 16; FAR)

51. RC1, RC2 and RC3 meet Project Needs and were carried forward into the Phase II analysis for further study. RC1 provides a direct connection between Winfield and PA

Route 147, with a skewed river bridge crossing of the West Branch Susquehanna River; RC2 provides a more perpendicular crossing of the Susquehanna River as a direct response to public input; RC3 creates a crossing of the West Branch Susquehanna River further south and then curves north with a new alignment west of PA Route 147 prior to its connection with Route 147. All three River Crossing alternatives have interchanges at U.S. Route 15 south of Winfield and at PA Route 147. (N.T. 92; FAR)

Phase II: Detailed Analysis of Section 1 Alternatives:

(A) Alternatives on Existing Alignments:

52. The "no build" alternative was dismissed by PennDOT in the Phase II analysis because of the determination that other prudent and reasonable options are available to meet Project Needs. (N.T. 95)

(B) Alternatives on New Alignments:

53. During Phase II, a new study area was developed by combining and refining alternatives that were carried forward from Phase I and creating hybrids of those alternatives. (FAR)

54. The new study area resulted in 10 new alignment alternatives in Section 1 and eight new alignment alternatives in Section 2. (FAR)

55. The new study area contained two different corridors – the Old Trail Corridor, (which combined portions of Phase I Alternatives C and F), and the A/A Hybrid Corridor (which combined the best features of Phase I Alternatives A, BA and D). These alternatives were designed to minimize impacts to Monroe Township and Shamokin Dam Borough by developing alternatives between U.S. Routes 11 and 15 and the Susquehanna River. (PennDOT Exhibit 20; FAR)

Section 1 New Alignment Alternatives – Old Trail Corridor Alternatives:

56. Six Old Trail Corridor Alternatives were developed - (1) Old Trail 1A, (2) Old Trail 1A Avoidance, (3) Old Trail 1B, (4) Old Trail 1B Avoidance, (5) Old Trail 2A and (6) Old Trail 2B. Each of these alternatives contains only minor variations from one mainline alternative; the difference in the Old Trail Corridor Alternatives is how they connect back to or access the existing system. (N.T. 97; PennDOT Exhibits 21-24; FAR)

57. Old Trail 1A was designed to minimize extensive residential and business displacements along the Old Susquehanna Trail; it starts at the existing stub of the Selinsgrove bypass but requires a reconfiguration of the interchange, which would no longer be used where it is stubbed out. The interchange would have to be rebuilt down on the flood plain. The alternative then heads north between the Old Susquehanna Trail and the river and crosses over U.S. Routes 11 and 15 near Stetler Avenue through the 61 connector in Shamokin Dam Borough. (N.T. 99; PennDOT Exhibit 20; FAR)

58. Old Trail 1A was dismissed as not prudent and not reasonable because: (a) the alignment impacts a portion of the power plant owned by PPL, which was identified early on in the study as eligible for listing in the National Register of Historic Places; (b) the alignment impacts a portion of the fly ash storage basin, which was identified as an environmental constraint; (c) the alignment causes a longitudinal encroachment on the 100-year floodplain of the Susquehanna River, which would require a substantial amount of fill material (approximately 60 acres) to be placed in the 100-year floodplain, causing a rise in water surface elevation in the event of a 100-year flood event. The alignment would also displace 35 residences, six commercial buildings, two industrial buildings 75 acres of productive agricultural land and 25 acres of ASA. (N.T. 99-103; FAR)

59. Old Trail 1A Avoidance was designed in an effort to avoid the historic boundary of the power plant and the ash basin. The alternative shifts to the west and uses the alignment of the existing Old Susquehanna Trail. (N.T. 103; PennDOT Exhibit 21; FAR 1)

60. Old Trail 1A Avoidance was also dismissed as not prudent and not reasonable because, although it avoided the historic boundary of the power plant, it was still located on the 100-year floodplain of the Susquehanna River and impacted 19 additional residences and three additional industries than the Old Trail Alternative 1A. (N.T. 103; FAR)

61. Old Trail 1B was developed as a result of opposition that was received from some residents of Shamokin Dam Borough to the Route 61 Connector. The only difference between Old Trail Alternative 1A and Old Trail Alternative 1B is the way the alternative accesses the existing roadway network. Rather than providing access to existing U.S. Routes 11 and 15 via the 61 Connector, access was provided through a new interchange with U.S. Routes 11 and 15 where the Old Trail Alternative crosses U.S. Routes 11 and 15 near Stetler Avenue. Because this alternative had all of the same engineering and environmental concerns as those associated with Old Trail Alternative 1A, it was also dismissed as not prudent and not reasonable. (N.T. 104; PennDOT Exhibit 22; FAR)

62. Old Trail 1B Avoidance was developed in an effort to avoid impacting the historical boundaries of the power plant and to avoid necessitating the relocation of portions of the ash basin located at the site. Although this alternative avoids the ash basin completely by shifting west and using the alignment of the Old Susquehanna Trail, it would impact 23 more residential properties than Old Trail 1B and would still encroach

upon the floodplain and was dismissed as not reasonable and not prudent. (N.T. 104; FAR)

63. Old Trail 2A begins near the Selinsgrove Bypass stub and proceeds north between the Old Susquehanna Trail and the Susquehanna River, attempting to minimize the residential impacts in the Old Trail Area. It then moves northwest near the vicinity of the power plant, impacting a portion of the ash basin, to cross over U.S. Routes 11 and 15. Old Trail 2A continues northwest and eventually interchanges with the 61 Connector, where it continues northwest to its connection with the Section 2 Alternatives. (PennDOT Exhibit 23; FAR)

64. Although Old Trail 2A avoids the historic property of the power plant altogether, it too was dismissed as not reasonable and not prudent. Old Trail 2A continues to create a longitudinal encroachment on the 100-year floodplain of the Susquehanna River. Like Old Trail 1A, Old Trail 2A would require approximately 60 acres of fill material to be placed in the floodplain. This much fill has the potential to cause the water surface elevation of a 100-year-flood event in the area of encroachment to rise approximately 3 inches, which would place 5 additional homes in the floodplain. Additionally, although this alternative reduces the number of residential properties that would be impacted, it would still necessitate the relocation of 43 residences, two commercial buildings and two industrial buildings. Additionally, 86 acres of high probability prehistoric archaeological sites, 74 acres of productive agricultural land, and 20 acres of ASA would be impacted. (N.T. 108; FAR)

65. The Old Trail 2B alternative follows an alignment between U.S. Routes 11 and 15 and the Susquehanna River very similar to Old Trail 2A. The difference occurs in its

connection to the existing roadway network. Old Trail 2B does not connect back to the existing system through the 61 connector. Instead, it provides for a new interchange on U.S. Routes 11 and 15 near Stetler Avenue. This alternative then continues north to a full movement interchange with the Route 15 connector and provides access from the new expressway to existing U.S. Route 15 just north of the U.S. Routes 11 and 15 split. (N.T. 109; PennDOT Exhibit 24; FAR)

66. Because the alignment of Old Trail 2B is very similar to Old Trail 2A, the impacts of the two alternatives are similar. Old Trail 2B causes the same longitudinal encroachment on the Susquehanna River floodplain as Old Trail 2A. In addition, Old Trail 2B had the same environmental impacts, including 46 residential displacements and 12 commercial displacements. This alternative also impacted 14 acres of wetlands, 76 acres of productive agricultural, 20 acres of ASA and 82 acres of high probability archaeological sites. Because of these engineering and environmental impacts, Old Trail 2B was considered to be not reasonable and not prudent. (FAR)

Section 1 A/A/ Hybrid Corridor:

67. The A/A Hybrid Corridor is further to the west, through the valley and not along the Susquehanna River. The concept behind this A/A Hybrid Corridor was to attempt to find a way to minimize the impact to residences and farmland in the ash basin area by using the closed ash basins 1 and 2 as part of an alternative because there was nothing else on them. (N.T. 113)

68. Four new Alignment Alternatives were developed: (1) DA West, (2) DA West Modified, (3) DA Modified and (4) DA Modified Avoidance. (N.T. 112; PennDOT Exhibits 26-28; FAR)

69. DA West uses the existing stub of the Selinsgrove bypass and continues west into Monroe Township, while avoiding most of the developed areas of the township. It continues through Shamokin Dam Borough connecting with the existing roadway system by way of the 61 connector, and continues on to where it connects to the Section 2 alternative. The problem with the DA west alternative is that it crosses over the top of the un-permitted, unregulated landfill. Because of the severe engineering constraints related to the municipal waste landfill, this alternative was dismissed as not prudent. (N.T. 115)

70. DA West Modified and DA Modified are the landfill avoidance options. (N.T. 116; PennDOT Exhibit 26)

71. The DA West Modified Alternative is modified to the north and west to avoid the landfill; however this alternative breaches both of the dams that create ash basins 1 and 2, and was dismissed as not prudent due to the constructability concerns with the ash basin dams. (N.T. 116-117)

72. The DA Modified Alternative was developed to avoid the landfill and the detrimental impacts to the ash basin dams by circumventing the landfill to the south and east. This alternative used the same existing stub of the Selinsgrove bypass and avoided the developed areas of Monroe Township. (N.T. 119; FAR)

73. The DA Modified Alternative displaces 31 residences, impacts 154 acres of productive agricultural land, 72 acres of ASA, 4 acres of wetlands, and 17 acres of high probability archaeological sites. This alternative also directly impacts a farmstead that was determined eligible for the National Register of Historic Farmsteads. (N.T. 119)

74. Although the DA Modified Alternative affects nine acres of property from within the boundary of the historic site, it does not require the displacement of any structures on

the historic site; however, it would bisect the farm property and be located approximately 155 feet from the farmstead. (N.T. 119; PennDOT Exhibit 28; FAR)

75. Section 106 of the National Historic Preservation Act requires PennDOT to avoid properties that qualify as eligible for the National Register and to investigate alternatives to avoid the impact. (N.T. 120; FAR)

76. Properties that are determined to be eligible for registration on the National Register receive the same protections as properties that are already listed on the register. (N.T. 121)

77. Section 4(f) of the U.S. Department of Transportation Act of 1996 similarly precludes the Secretary of the Department of Transportation from impacting an historic resource if there is a prudent and feasible alternative to not taking the historic property. (N.T. 122)

78. The test under section 4(f) of the U.S. Department of Transportation Act of 1996 is whether the avoidance option rises to a level of impact that would be considered extraordinary. (N.T. 122)

79. The DA Modified Avoidance Alternative (DAMA) was developed to completely avoid the historic farmstead that was impacted by the DA Modified Alternative. (N.T. 123; PennDOT Exhibit 28; FAR)

80. The DA Modified Avoidance Alternative requires a reconfiguration of the interchange; it heads north and west from existing U.S. Routes 11 and 15 in the area of the stub of the Selinsgrove bypass but does not use the stub. Instead, it reconfigures the connection by approximately 766 feet to the north of the historic farmstead and, in doing so, takes two homes and seven commercial businesses. From an agricultural standpoint it

reduces productive agricultural land impacts by 2.4 acres and ASA impacts by .4 acre. (N.T. 122-123; FAR)

81. The DA Modified Avoidance Alternative displaces 33 residences and seven (7) commercial businesses; it impacts 152 acres of productive agricultural land, 71 acres of ASA, five (5) acres of wetlands and 16 acres of high probability archaeological areas. (N.T. 126; FAR)

82. The DA Modified Avoidance Alternative meets the project needs better than all of the alternatives studied in Section 1 and minimizes environmental impacts to features such as residences, commercial establishments, wetlands, floodplains, historic resources and archaeological resources. (N.T. 126-127; FAR)

83. The DA Modified Avoidance Alternative is the alternative advanced by PennDOT as the only reasonable and prudent alternative preferred for Section 1. (N.T. 126-127)

Phase II, Section 2:

(A) Alternatives on Existing Alignments:

84. The "no build" alternative in Section 2 was dismissed by PennDOT because it meets no project needs and other prudent and reasonable options are available to meet project needs. (N.T. 95)

(B) Alternatives on New Alignments:

85. In Phase II, the three River Crossing alternatives that were carried forward from the Phase I analysis were expanded to seven different River Crossing options. (N.T. 130)

86. At the request of residents in Point Township, River Crossing1 was made into two different crossings – River Crossing 1 West and River Crossing 1 East. (N.T. 130-131; PennDOT Exhibit 32)

87. River Crossing 1 East begins with a new interchange with U.S. Route 15 just south of Winfield on the east side of the West Branch Susquehanna and expands the flood way and the 100-year floodplain, using a modified trumpet-style interchange to provide access to Route 147; it then continues east of Route 147 to the northern terminus at the widened end of Route 147. (N.T. 130-131)

88. River Crossing 1 East meets project needs but was dismissed as not prudent and not reasonable because of engineering and environmental constraints. River Crossing 1 East crosses the Susquehanna River at a location where the geologic formation that would be the foundation for the river crossing structure is prone to sinkholes. This crossing would also displace 28 residences and seven (7) commercial establishments and would impact 162 acres of productive agricultural land, three (3) acres of ASA, and three (3) acres of wetlands and affect 19 acres of high probability archeology. (N.T. 131-132; FAR)

89. River Crossing 1 West is, essentially, the same alternative as River Crossing 1 East but on the west side of the Susquehanna River. This alternative was created in response to residents in Point Township who requested that an option be considered that runs to the east of Route 147 as opposed to the west of the river. (N.T. 132)

90. River Crossing 1 West was dismissed as not prudent and not reasonable based upon the same engineering and environmental constraints identified with River Crossing 1 East. In addition, this River Crossing alternative would require a wider footprint for service roads due to the location and size of its interchange with Route 147 east of the river increasing the displacement of residential and commercial establishments to 46 and 10, respectively. (N.T. 132-133; FAR)

91. River Crossing 2 was dismissed very early on in the Phase II analysis because it had minimal compliance with engineering design criteria and was opposed locally because its location impacted on the Winfield River's Edge Campground, a privately owned recreational campground. (N.T. 134; FAR)

92. River Crossing 4 was designed at the request of local residents to minimize the impact on the Winfield River's Edge Campground and to farmland and residences in Union Township. However, due to its location with Route 147, this alternative was also dismissed from further study because it would impact two structures that were potentially eligible for the National Register and cause the displacement of at least 30 residences. (N.T. 135-136; FAR)

93. River Crossing 6 was a refinement of River Crossing 4 in an attempt to accommodate local concern for a more northerly river crossing and to avoid the impacts on the two historic properties. This alternative has a full directional interchange with U.S. Route 15 in the Winfield area, crosses the Susquehanna River and spans the 100-year floodplain, using a modified trumpet-style interchange with Route 147, where it continues up to the northern terminus. (N.T. 136-137; PennDOT Exhibit 33; FAR)

94. Due to engineering and environmental constraints, River Crossing 6 was dismissed as not reasonable or prudent. Like River Crossing 1 East, the geologic formation of the location for the river crossing structure is limestone, which is prone to sinkhole development. Additionally, due to the cloverleaf configuration between the interchange with Route 147, the alternative would cause 26 residential and eight (8) commercial displacements. (N.T. 137; FAR)

95. River Crossing 3 was the southernmost river crossing alternative that was advanced from the Phase I analysis. This alternative was different on the east side of the Susquehanna River in that it ran along the floodplain landform. This alternative was prudent because it did not have the engineering constraints associated with it that River Crossings 1 East, 1 West and 6 had but it was not reasonable because it affected the most productive agricultural land of all of the preliminary Section 2 alternatives. (N.T. 137-138)

96. River Crossing 5 is a refinement of River Crossing 3. River Crossing 5 has a fully directional interchange with U.S. Route 15. It crosses the West Branch Susquehanna on a structure that spans the floodplains and Route 146 on the east side of the river making use of a smaller island south of the large island in the West Branch Susquehanna that contained the geologic formation prone to sinkhole development. The crossing continues north and east to a diamond interchange with Ridge Road and then provides direct access to Route 147 via a relocated connector, and continues up to the northern project terminus. (N.T. 138-140; PennDOT Exhibit 34)

97. River Crossing 5 has the least amount of residential impacts, displacing 25 residences, and affects no commercial establishments and no industries. (N.T. 139-140; FAR)

98. River Crossing 5 impacts 166 acres of productive farmland, 26 acres of ASA and three (3) acres of wetlands but affects only 11 acres of high probability archaeological areas. (N.T. 139-140)

99. River Crossing 5 is the only reasonable and prudent alternative in Section 2. (N.T. 140)

100. The ALCAB preferred alternative for the entire project is the DA Modified Avoidance Alternative in Section 1 and the River Crossing 5 Alternative in Section 2 (ALCAB preferred alternative). (PennDOT Exhibit 35)

101. PennDOT considered the impact of this project on productive farmland and the Governor's Executive Order 2003-2 regarding the preservation of farmland in its evaluation of the various alternatives and the ALCAB Preferred Alternative. (N.T. 181-183; FAR, pgs. 165-167)

102. The ALCAB Preferred Alternative has no impact on preserved farmland; the total impact on ASA prime agricultural land is 77.2 acres; the total impact on land within a preferential tax assessment program enrollment (Clean & Green) is 16.1 acres; the total impact on land that is zoned and planned for agricultural use is 106.4; and 86.6 acres of land containing class one through four soils are impacted. (N.T. 181-183; FAR, pg. 167)

103. The ALCAB preferred alternative directly affects 223 acres of productive agricultural land farmed by 11 farm operations and indirectly affects 63.5 acres of productive agricultural land by rendering the land inaccessible and unfarmable due to remnant shape and/or size. (N.T. 143-179; PennDOT Exhibit 36; FAR, pgs. 165-167)

104. The DA Modified Avoidance Alternative in Section 1 impacts the A.W. Heimbach and Sons dairy farm, the Hummel Land and Cattle beef farm, the Mike Thomas rabbit business, the San-Lee Farms heifer/crop farm and the Dianna Loss Christmas tree business. (N.T. 143-171; PennDOT Exhibits 37-43)

105. The River Crossing 5 Alternative in Section 2 also impacts the Hummel Land and Cattle beef farm west of the West Branch Susquehanna in Union Township as well as the Maple Lane Farm and the Daryl Beiler operation. (N.T. 165-167, 171-174)

106. The River Crossing 5 Alternative affects four additional farm operations east of the West Branch Susquehanna in Point Township, Northumberland County. (N.T. 175-179; PennDOT Exhibits 46-48; FAR)

107. The Snyder County Farm Borough, Albert Heimbach, and two local farmers all appeared at the hearing in opposition to PennDOT's DA Modified Avoidance Alternative, as it favors preservation of the Simon P. App farm (DA Modified Alternative), a farmstead that has been determined eligible for registration on the National Register, over the Heimbach farm, which is actively farmed for business purposes. These commentators favor the DA Modified Alternative which would avoid the highway encroachment on the Heimbach property. (N.T. 201-204, 210-212, 217-220, 222-226, 240-244)

108. The DA Modified Avoidance Alternative will directly impact 48 acres of productive agricultural land farmed by Heimbach in addition to 9.9 acres, which will be impacted indirectly. (N.T. 155-157; FAR)

109. The Heimbach farm has been a working family farm since 1953; the operation is primarily a dairy operation involving approximately 900 acres, with a herd size of about 475, of which 230 are cows. Mr. Heimbach is concerned that the noise associated with the closeness and the elevation of by-pass will adversely affect his cows. In addition, the proposed proximity of the by-pass to Mr. Heimbach's barn will create an inconvenience to Mr. Heimbach in getting to and from the adjoining fields. (N.T. 219-227. Heimbach Exhibit 1)

110. The DA Modified Alternative would extend the by-pass through the Simon App Land, save 13 acres of Heimbach's prime farm land and move the proposed by-pass further west of Heimbach's farm buildings. (Heimbach Exhibit 1)

111. In arriving at the ALCAB Preferred Alternative, PennDOT's engineering district performed an analysis pursuant to PennDOT Publication 324 to determine the continued viability of Agricultural Security Areas. (N.T. 187-190)

112. Although the ALCAB Preferred Alternative will impact farm operations and productive agricultural land, it will not adversely influence the long term viability of the remaining Agricultural Security Areas of project area municipalities. (N.T. 187-190; FAR)

CONCLUSIONS OF LAW

1. The Agricultural Lands Condemnation Approval Board (ALCAB) has jurisdiction over this matter. 3 P.S. §913(a) and 71 P.S. §106.

2. In the case of condemnation for highway purposes, ALCAB is authorized to approve a proposed condemnation of land within an agricultural security area that is being used for productive agricultural purposes only if ALCAB determines that there is no reasonable and prudent alternative to the utilization of the land within the ASA for the project. 3 P.S. §913(d)(2)(i).

3. PennDOT is restricted by section 106 of the National Historic Preservation Act and section 4(f) of the U.S. Department of Transportation Act of 1996 from impacting an historic property if there is a prudent and feasible alternative to not taking the historic property. (Findings of Fact Nos. 72-79)

4. PennDOT appropriately considered the National Historic Preservation Act and the U.S. Department of Transportation Act of 1996 in its evaluation of the various alternatives and in advancing the ALCAB Preferred Alternative. (Findings of Fact Nos. 72-83)

5. The Board is required to consider the Governor's Agricultural Land Preservation Policy (ALPP) (Executive Order 2003-2), in its review of agricultural lands proposed for condemnation. 4 Pa. Code §7.304.

6. There is no reasonable and prudent alternative to the taking of land being used for productive agricultural purposes in Snyder, Union and Northumberland Counties, described as the ALCAB Preferred Alternative, for the Central Susquehanna Valley Transportation Project. (Findings of Fact Nos. 1-112)

DISCUSSION

The Agricultural Area Security Law, 3 P.S. §§901 *et. seq.*, provides, in pertinent part, as follows:

> **§913. Limitation on certain governmental actions**
>
> **(a) Approval required for condemnation and for certain other actions by an agency of the Commonwealth.** – No agency of the Commonwealth having or exercising powers of eminent domain shall condemn for any purpose any land within any agricultural security area which land is being used for productive agricultural purposes. . . unless prior approval has been obtained in accordance with the criteria and procedures established in this section from the Agricultural Lands Condemnation Approval Board as established in section 306 of the act of April 9, 1929 (P.L. 177, No. 175), known as "The Administrative Code of 1929. . . .
>
> . . .
>
> **(d) Review by Agricultural Lands Condemnation Approval Board and other bodies. –**
>
> (1) Upon receipt of such notice the Agricultural Condemnation Approval Board . . . shall review the proposed condemnation in accordance with the applicable criteria established in paragraph (2).
>
> (2)
>
> (i) In the case of condemnation for highway purposes. . . the Agricultural Lands Condemnation Approval Board. . . shall approve the proposed condemnation only if it determines there is no reasonable and prudent alternative to the utilization of the land within the agricultural security area for the project.

3 P.S. §913.

Pursuant to section 913(a) of the Agricultural Area Security Law, the Secretary of Transportation, submitted a request to the Secretary of Agriculture to schedule an ALCAB hearing so that the Board could consider a request by PennDOT to approve the taking and conversion of productive agricultural lands located in Snyder, Union and

Northumberland Counties, PA for a highway project known as the "Central Susquehanna Valley Transportation (CSVT) Project.

The Findings of Fact detail the exhaustive analysis and evaluation conducted by PennDOT and representatives of the CSVT Project consultant team throughout the approximate 10-year study of the CSVT Project. The Findings of Fact also set forth the engineering and environmental constraints that had to be considered and weighed by PennDOT in conducting its study and arriving at its final recommendation to this Board.

Because the initial project study area encompassed over 50,000 acres covering a tri-county area, PennDOT's evaluation of alternatives was conducted in two phases and broken up into two sections to allow for a wide range of alternatives. Phase I of the study involved a preliminary alternative analysis that evaluated a wide range of alternatives; Phase II of the study consisted of a more detailed alternative analysis that narrowed the range of alternatives. In all, over 30 different alternatives for new alignments were explored by PennDOT throughout Phase I and II of the study. Only after a detailed alternatives comparison that considered the impact to productive agricultural land and agricultural security areas, engineering and environmental constraints, local concerns, historical resources, residential and commercial development, archaeological resources, wetlands and floodplains, was the ALCAB Preferred Alternative advanced.

In the case of condemnation for highway purposes, this Board may only approve a proposed condemnation if there is a showing to the satisfaction of the Board that no reasonable and prudent alternative exists for the utilization of land within the agricultural security area for the project. To that end, the Board is satisfied that the River Crossing 5 alternative proposed by PennDOT for Section 2 meets project needs, causes the least

amount of residential and business displacements, and avoids the sinkhole-prone geology on the large island in the West Branch Susquehanna River area. Although the River Crossing 5 alternative impacts 166 acres of productive farmland and 26 acres of ASA, there is no other reasonable and prudent alternative in the river crossing area of Section 2 for this alignment.

The Board struggled with PennDOT's Section 1 recommendation because the Board is charged with looking at alternatives that do not adversely impact productive agricultural land. In the Board's opinion, the most reasonable, prudent and preferred alternative for Section 1 of the CSVT project would have been the DA Modified alternative.

Although the DA Modified alternative would impact approximately nine (9) acres of the Simon P. App farm, which is *eligible* for registration as an historic farmstead, to date no steps have been taken to register this farm in the National Register. In addition, the evidence suggests that the APP land is not currently used for farming purposes and may be proposed for development.

The DA Modified Avoidance alternative that has been advanced by PennDOT as the preferred Section 1 alternative negatively impacts the A.W. Heimbach and Sons dairy farm. The Heimbach farm is adjacent to the App farm and was homesteaded at or about the same time as the Simon P. App land. Unfortunately, in 1994, Heimbach's barn was destroyed by fire and replaced with a pole building. As a result, even though the Heimbach farm has been actively farmed since 1953 and is the major dairy farm in Monroe Township, Heimbach's land does not qualify for eligibility as an historic farmstead and does not receive the same protections as the Simon P. App farmstead.

Although the DA Modified Avoidance alternative will completely avoid the App farm and preserve the historic integrity of the land, it directly impacts 48 acres of productive agricultural land farmed by Heimbach and indirectly impacts 9.9 additional acres by rendering those acres inaccessible and/or unfarmable. In addition, Mr. Heimbach is concerned that the noise associated with the location of the proposed by-pass in relation to his farm buildings will negatively impact his cows.

Mr. Heimbach, the Vice President of the Snyder County Farm Bureau and two local farmers all appeared at the hearing in opposition to PennDOT's proposal to advance the DA Modified Avoidance alternative. These commentators favor extending the by-pass through the App land as proposed in the DA Modified alternative.

The Board shares the concerns expressed by Mr. Heimbach and those who testified in Heimbach's behalf. The Board is mindful, however, that PennDOT is obligated by State and Federal law to avoid impacting an historic resource if there is a prudent and feasible alternative to not taking the historic property. The Board also realizes that under the National Historic Preservation Act, properties that are determined eligible for the National Register are afforded the same level of protection as properties that are listed on the National Register. The Board also appreciates that PennDOT has taken steps to attempt to challenge the historical eligibility of the APP farm but was unsuccessful.

Solely because of the legal restrictions imposed upon PennDOT by the National Historic Preservation Act and the U.S. Department of Transportation Act of 1996, which imposes similar restrictions upon the Secretary of the Department of Transportation with respect to historic resources, the Board gives its approval to the entire CSVT project. The

Board is satisfied that the ALCAB Preferred Alternative will meet project needs by reducing congestion and accommodating growth, improving safety and separating thru traffic from local traffic. The Board is also satisfied that the ALCAB Preferred Alternative will not adversely influence the long term viability of the remaining agricultural security areas of the affected municipalities.

Should conditions with respect to the historical nature of the APP farm change from those currently present at any point prior to the construction of the CSVT project, the Board encourages PennDOT to re-evaluate the area of impact and to re-visit the DA Modified alternative as the preferred Section 1 alternative.

Having considered in its totality the record of this proceeding, the following Order is entered:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF AGRICULTURE
AGRICULTURAL LANDS CONDEMNATION
APPROVAL BOARD

IN RE:	**Central Susquehanna Valley Transportation Project in Snyder, Union and Northumberland Counties**	:	**Docket No. AG-2005-1**

ORDER

AND NOW, this 22nd day of April 2005, upon consideration of the testimony and exhibits of record, and in accordance with the vote taken by the Board during a public meeting held on March 31, 2005 at the Crossroads Church of the Nazarene, Milton, PA, the Board, by majority vote, **APPROVES** the request filed by the Honorable Allen D. Biehler, P.E., Secretary of Transportation on February 24, 2005 to convert productive agricultural lands located in Snyder, Union and Northumberland Counties, PA to highway use.

AGRICULTURAL LANDS CONNDEMNATION APPROVAL BOARD

BY: Cheryl L. Cook

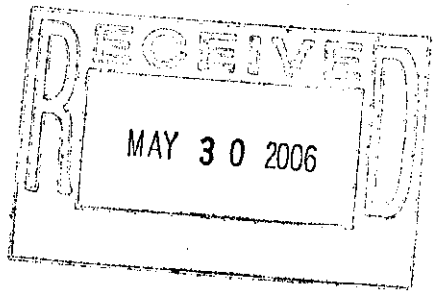
Cheryl L. Cook, Chairperson
Deputy Secretary
Department of Agriculture

APPENDIX B -
CSVT ALCAB ADJUDICATION #2 2006

OS-2 (4-01)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
www.dot.state.pa.us

Post Office Box 218
Montoursville, Pennsylvania 17754-0218
Telephone: 570-368-4256
May 26, 2006



Subject: Northumberland, Snyder, and Union Counties
S.R. 15, Section 088
May 2006 ALCAB Adjudication

Skelly and Loy, Incorporated
2601 North Front Street
Harrisburg, PA 17110-1185

Attention: Ms. Sandra Basehore

Dear Ms. Basehore:

Attached is a copy of the Adjudication and Order of the Agricultural Lands Condemnation Approval Broad, entered May 8, 2006, granting condemnation approval for the productive agricultural lands necessary to construct the DA Modified alternative.

Thank you for your efforts in reaching the successful resolution of this matter and please extend my appreciation to all of the team members who worked diligently on this issue.

Sincerely,

James A. Kendter

James A. Kendter, P.E.
District Executive
Engineering District 3-0

Attachment

Sandy,

Excellent work!

Jim Kendter

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF CHIEF COUNSEL
REAL PROPERTY DIVISION
POST OFFICE BOX 8212
HARRISBURG, PA 17105-8212
TELEPHONE: (717) 787-3128
FACSIMILE: (717) 772-2741

GOVERNOR'S OFFICE OF
GENERAL COUNSEL

JMK
cc: JDB
JWE

cc: EEH
LJL
JWE
LPC

DATE: 22 May 2006

SUBJECT: SNYDER, UNION & NORTHUMBERLAND COUNTIES
CENTRAL SUSQUEHANNA VALLEY
TRANSPORTATION PROJECT (CSVT)
S.R. 0015, SECTION 088—ALCAB PROCEEDINGS
ADJUDICATION & ORDER
Docket No. AG-2006-2

TO: James Kendter, P.E., District Executive, District 3-0
Montoursville

FROM: Christopher J. Clements, Asst. Counsel in Charge
Right of Way Section

Please find attached the Adjudication & Order of the Agricultural Lands Condemnation Approval Board entered May 8, 2006, granting condemnation approval for the productive agricultural lands necessary to construct PennDOT's preferred alignment in this project—Alternative DA Modified (DAM). The decision of the Board was unanimous.

ALCAB's ruling incorporates by reference the facts and conclusions from its unappealed adjudication and order dated April 22, 2005, and properly notes that this second application is limited to the southern interchange focus area. In noting the fact that the eligibility of the "App Farm" as an historic resource had changed, the Adjudication provides:

> Having expressed its preference one year ago for the DA Modified alternative, the Board has no difficulty today granting approval to PennDOT to condemn the productive agricultural lands necessary for the construction of the DA modified alternative alignment in the Project's southern focus area. Adjudication at 12.

Please accept the congratulations of this Office to you and your staff, including all the staff at Skelly and Loy, Inc., for all the fine work done in obtaining this 2nd approval.

cc: William J. Cressler, Assistant Chief Counsel
Real Property Division
Lenny Confer, R/W Admin., Dist. 3-0
Daryl Kerns, P.E., HQUAD, 7th Flr. CKB
Sandra K. Basehore, Project Manager
Skelly and Loy, Inc.
2601 North Front Street
Harrisburg, PA 17110

attach.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF AGRICULTURE
AGRICULTURAL LANDS CONDEMNATION APPROVAL BOARD

IN RE:	Central Susquehanna Valley Transportation Project in Snyder, Union and Northumberland Counties	: : : : :	Docket No. AG-2006-2

ADJUDICATION AND ORDER

Date of Hearing: May 4, 2006

Jackie Wiest Lutz
Hearing Officer

HISTORY

This matter is before the Agricultural Lands Condemnation Approval Board (hereinafter "ALCAB" or "Board") pursuant to a request filed by the Honorable Allen D. Biehler, P.E., Secretary of Transportation on March 10, 2006 for approval to convert productive agricultural lands located in the southern interchange focus area of the Central Susquehanna Valley Transportation (CSVT) Project in Snyder, Union and Northumberland Counties, PA to highway use.

By letter dated March 17, 2006, Douglas M. Wolfgang, on behalf of ALCAB, notified the following officials of the scheduling of a hearing to take place on May 4, 2006 at 9:00 a.m. at the Crossroads Church of the Nazarene, 71 Nazarene Lane, Milton, Northumberland County, PA:

Cheryl L. Cook, Esquire, Chairperson, ALCAB;
Joanne R. Denworth, Esquire, ALCAB;
Robert Janecko, ALCAB;
Steven W. Taglang, ALCAB;
Norman Morrison, ALCAB;
Russell Orner, ALCAB;
Ag Area Advisory Committee, Snyder County Planning Department;
Steven Bilger, Chair, Snyder County Commissioners;
Kevin P. Staschiak, Director, Snyder County Planning Department; and,
Timothy Wolfe, Chair, Monroe Township Supervisors.

In addition, notification of the scheduling of the ALCAB hearing was sent to the following landowners:

Albert W. and Mary E. Heimbach;
Marlin E. Fisher;
Susquehanna Valley Mall Associates;
Eastern Communities Limited Partnership;
Donald W. Fisher; and,
Douglas W. Mertz

The Notice of public hearing was posted at the following locations:

(1) Monroe Township Administrative Building;

(2) Milton Public Posting Board;
(3) Milton Post Office;
(4) Hummels Wharf Post Office; and,
(5) Selinsgrove Borough Office

In addition, the public hearing notice was published in the Sunbury Daily Item.

The hearing was held as scheduled on May 4, 2006 before Hearing Officer, Jackie Wiest Lutz, Esquire and the following Board members: Cheryl L. Cook, Esquire, Chairperson, Robert J. Janecko, Steven Wm. Taglang, Norman Morrison, Russell Orner and Joanne Denworth.

At the close of the hearing, the Board announced its decision, by unanimous vote, to approve the condemnation of productive agricultural farmlands for the ALCAB preferred alternative, known as the DA Modified, in the southern interchange focus area of the CSVT Project.

The Board's written decision follows.

FINDINGS OF FACT

BACKGOUND:

1. On April 22, 2005, the Board issued an Adjudication and Order that previously approved a request by PennDOT to condemn productive agricultural lands located in Snyder, Union and Northumberland Counties, PA for this same CSVT Project. (Official Notice; PennDOT Exhibit 1, Appendix A)

2. In its April 22, 2005 Adjudication and Order, the Board approved the DA Modified Avoidance alternative as the only reasonable and prudent alternative for Section 1 of the Project area and the River Crossing 5 alternative as the only reasonable and prudent alternative for Section 2 of the Project area.[1] (Official Notice; PennDOT Exhibit 1, Appendix A)

3. Although the Board specifically approved the DA Modified Avoidance alternative for Section 1 of the Project area, the Board struggled with PennDOT's Section 1 recommendation because, in the Board's opinion, the most reasonable, prudent and preferred alternative for Section 1 would have been the DA Modified alternative. (Official Notice; PennDOT Exhibit 1, Appendix A)

4. The DA Modified alternative met all of the Project needs but was not advanced by PennDOT as the most reasonable, prudent and preferred alternative for Section 1 largely because the DA Modified alternative directly impacted approximately nine acres of the Simon P. App farm which, *at the time*, was determined eligible for the National Register of Historic Farmsteads, even though no steps had been taken to register this farm in the

[1] Anything studied to the south of Winfield along U.S. Route 15 was considered Section 1 of the Project area; anything studied to the north of Winfield along U.S. Route 15 was considered Section 2 of the Project area. (PennDOT Exhibit 1, Appendix A, p. 9)

National Register and the land was not currently being used for farming purposes. (Official Notice; PennDOT Exhibit 1, Appendix A)

5. The DA Modified Avoidance alternative was advanced by PennDOT as the most reasonable and prudent alternative for Section 1 because PennDOT is restricted by section 106 of the National Historic Preservation Act and section 4(f) of the U.S. Department of Transportation Act of 1996 from impacting an historic property if there is a prudent and feasible alternative to not taking the historic property; the DA Modified Avoidance alternative completely avoids the App farmstead. (Official Notice; PennDOT Exhibit 1, Appendix A)

6. Although the DA Modified Avoidance alternative completely avoids the App farmstead, it directly impacts 48 acres of productive agricultural land farmed by A.W. Heimbach and Sons and indirectly impacts 9.9 additional acres by rendering those acres inaccessible and/or unfarmable. (Official Notice; PennDOT Exhibit 1, Appendix A)

7. In granting its approval to the DA Modified Avoidance alternative for Section 1 of the Project area, the Board specifically stated in its April 22, 2005 Adjudication and Order:

> Should conditions with respect to the historical nature of the App farm change from those currently present at any point prior to the construction of the CSVT project, the Board encourages PennDOT to re-evaluate the area of impact and to re-visit the DA Modified alternative as the preferred Section 1 alternative.
> (Official Notice; PennDOT Exhibit 1, Appendix A, p. 37)

CURRENT PROPOSAL:

8. On July 22, 2005, the Keeper of the National Register for the United States Department of the Interior concluded that the Simon App farm was not eligible for the

National Register of Historic Places and rescinded its prior determination of eligibility. (N.T. 16; PennDOT Exhibit 1, Appendix B)

9. The decision of non-eligibility was based upon new research information and methodology outlined in the property types and registration requirements of a draft historic context called the *North and West Branch Susquehanna, Diversified Farming Region.* (N.T. 32-24; PennDOT Exhibit 1 (FAR) and Appendix B)

10. The DA Modified Avoidance alternative that was designed to avoid the App farmstead is no longer necessary since the Simon App farm is no longer considered eligible for the National Register. (N.T. 27-28)

11. PennDOT has reconsidered the DA Modified alternative as the preferred Section 1 alternative. (N.T. 27-28)

12. When evaluating alternatives, a two-part test is used: (1) the prudence of the alternative; and (2) the reasonableness of the alternative. (N.T. 22)

13. Two factors that relate to whether an alternative is prudent are whether or not the alternative meets the project needs and whether or not the alternative has any negative constructability issues. (N.T. 22)

14. The test for reasonableness is making sure that none of the alternatives have excessive environmental impacts. (N.T. 23)

15. Both the DA Modified and the DA Modified Avoidance alternatives meet the project needs equally[2] and neither has negative constructability issues; however, the DA Modified alternative has less environmental impacts on all major resources when

[2] The project needs are to reduce congestion and accommodate growth; improve safety; and separate through traffic from local traffic. Project needs were previously considered and discussed by the Board in its April 22, 2005 Adjudication and Order, which is incorporated by reference in its entirety in this Adjudication and Order. (N.T. 23; PennDOT Exhibit 1 (FAR), p. 3 and Appendix A; PennDOT Exhibit 3)

compared to the DA Modified Avoidance alternative. (N.T. 30; PennDOT Exhibit 1 (FAR), p. 9)

16. The DA Modified alternative displaces six (6) fewer businesses than the DA Modified Avoidance alternative. (N.T. 28; PennDOT Exhibit 1 (FAR), Table 2, p. 10 and PennDOT Exhibit 5)

17. The DA Modified alternative displaces two (2) fewer residences than the DA Modified Avoidance alternative. (N.T. 28; PennDOT Exhibit 1 (FAR), Table 2, p. 10 and PennDOT Exhibit 5)

18. The DA Modified alternative impacts 1.1 acres less productive agricultural land, .3 acres less agricultural security area and .9 acres less wetlands than the DA Modified Avoidance alternative. (N.T. 28-29; PennDOT Exhibit 1 (FAR), Table 2, p. 10 and PennDOT Exhibit 5)

19. The DA Modified alternative impacts 2.3 acres less of the 100 year floodplain than the DA Modified Avoidance alternative. (N.T. 29; PennDOT Exhibit 1 (FAR), Table 2, p. 10 and PennDOT Exhibit 5)

20. The DA Modified alternative impacts 3.1 acres less of the high probability archeological areas than the DA Modified Avoidance alternative. (N.T. 29; PennDOT Exhibit 1 (FAR), Table 2, p. 10 and PennDOT Exhibit 5)

21. The DA Modified alternative does not impact any historic properties that are eligible for the National Register. (N.T. 29)

22. The DA Modified alternative directly impacts only 17.8 acres of productive farmland owned and leased by A.W. Heimbach and Sons as compared to 48 acres under the DA Modified Avoidance alternative; there are no indirect impacts to the Heimbach

farmland with the DA Modified alternative. (N.T. 39-41; PennDOT Exhibit 1, Appendix A)

23. PennDOT reviewed the impacts of this project in accordance with the Agricultural Land Preservation Policy (ALPP); the DA Modified alternative will impact 17.5 acres in agricultural security area and 0.3 acres having soil capability in soil classes I through IV. (N.T. 42-43; PennDOT Exhibit 1 (FAR), pgs. 15, 17)

24. The Federal Farmland Protection Policy Act of 1981 governs the conversion of FPPA farmland to other uses where federal funding is concerned. (N.T. 43)

25. A Farmland Conversion Impact Rating Form is completed to obtain a rating; a total rating of over 160 points requires justification or further analysis to avoid, minimize or mitigate impacts on FPPA farmland. (N.T. 43; PennDOT Exhibit 1 (FAR), p. 17)

26. The rating for the DA Modified alternative is 128 points; no further consideration is necessary because the land is considered committed to urban development. (N.T. 44; PennDOT Exhibit 1 (FAR), p. 17)

27. Although the DA Modified alternative will impact farm operations and productive agricultural land, it will not adversely influence the long-term viability of the remaining agricultural security area of the project area municipalities. (N.T. 44-45)

28. The DA Modified alternative impacts less land in agricultural security areas than the previously approved DA Modified Avoidance alternative. (N.T. 44-45)

29. The Snyder County Farm Bureau strongly endorses the DA Modified alternative. (N.T. 58; Benner Exhibit 1)

30. Although the impacts to the land owned and/or farmed by A.W. Heimbach and Sons are still difficult for Mr. Heimbach to accept, Mr. Heimbach believes that PennDOT

and all persons involved "made a reasonable decision to use the DA Modified alternative as the most economical and shortest distance to traverse [the affected] area. (N.T. 55-56; Heimbach Exhibit 1)

31. The DA Modified Avoidance alternative is no longer the most prudent and reasonable alternative that exists in the southern interchange focus area. (N.T. 31)

32. The DA Modified alternative is the only prudent and reasonable alternative that exists in the southern interchange focus area (Section 1). (N.T. 31)

CONCLUSIONS OF LAW

1. The Agricultural Lands Condemnation Approval Board (ALCAB) has jurisdiction over this matter. 3 P.S. §913(a) and 71 P.S. §106.

2. In the case of condemnation for highway purposes, ALCAB is authorized to approve a proposed condemnation of land within an agricultural security area that is being used for productive agricultural purposes only if ALCAB determines that there is no reasonable and prudent alternative to the utilization of the land within the ASA for the project. 3 P.S. §913(d)(2)(i).

3. The Board is required to consider the Governor's Agricultural Land Preservation Policy (ALPP) (Executive Order 2003-2), in its review of agricultural lands proposed for condemnation. 4 Pa. Code §7.304.

4. The DA Modified alternative is the only prudent and reasonable alternative that exists in the southern interchange focus area of the CSVT Project. (Findings of Fact Nos. 1-32)

DISCUSSION

When the Board first granted its approval of the DA Modified Avoidance alternative in 2005, it considered the exhaustive analysis and evaluation conducted by PennDOT and representatives of the CSVT Project consultant team. The Board recognized then that PennDot appropriately advanced the DA Modified Avoidance alternative as the preferred alternative in Section 1 due to restrictions imposed against it by the National Historic Preservation Act and the U.S. Department of Transportation Act of 1996, which limits PennDOT from impacting an historic property if there is a prudent and feasible alternative to not taking the historic property.

However, as reflected in the Board's April 22, 2005 Adjudication and Order,[3] the Board had strong concerns with PennDOT's Section 1 recommendation because the DA Modified Avoidance alternative was advanced as the preferred alternative for Section 1 instead of the DA Modified alternative solely because the DA Modified alternative would have impacted approximately nine acres of the Simon P. App farm which, *at the time,* was eligible for registration as an historic farmstead. The App farm was not then currently used for farming purposes and was contemplated for proposed development.

With the exception of the impact on this historic farmstead, the DA Modified alternative appeared, in all respects, to be the more reasonable and prudent alternative because it meets the Project needs, has no negative constructability issues, impacts less land in agricultural security areas and, as reflected in the findings of this decision, had less environmental impacts on all major resources when compared to the DA Modified Avoidance alternative. In addition, the DA Modified alternative directly impacts only

[3] As noted in footnote 2, the Board incorporates by reference its April 22, 2005 Adjudication and Order in its entirety in this decision.

17.8 acres of productive farmland owned and leased by A.W. Heimbach and Sons as compared to 48 acres under the DA Modified Avoidance alternative and has no indirect impact on any remaining acres of the Heimbach land.

In granting its approval to the entire CSVT Project in 2005, the Board stated in its Adjudication and Order:

> Should conditions with respect to the historical nature of the App farm change from those currently present at any point prior to the construction of the CSVT project, the Board encourages PennDOT to re-evaluate the area of impact and to re-visit the DA Modified alternative as the preferred Section 1 alternative.
> (PennDOT Exhibit 1, Appendix A, p. 37)

As the record reflects, three months after this Board issued its Adjudication and Order, the Keeper of the National Register for the United States Department of the Interior concluded that the Simon App farm was *not eligible* for the National Register of Historic Places and rescinded its prior determination of eligibility. No longer faced with the restrictions imposed by the National Historic Preservation Act and the U.S. Department of Transportation Act of 1996, PennDOT now seeks approval by this Board of the DA Modified alternative as the most prudent and reasonable alternative for Section 1.

Having expressed its preference one year ago for the DA Modified alternative, the Board has no difficulty today granting approval to PennDOT to condemn the productive agricultural lands necessary for the construction of the DA Modified alternative alignment in the Project's southern focus area.

Accordingly, the following Order is entered:

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF AGRICULTURE
AGRICULTURAL LANDS CONDEMNATION
APPROVAL BOARD

IN RE:	**Central Susquehanna Valley Transportation Project in Snyder, Union and Northumberland Counties**	: : : : :	**Docket No. AG-2006-2**

ORDER

AND NOW, this 8th day of May 2006, upon consideration of the testimony and exhibits of record, and in accordance with the vote taken by the Board during a public meeting held on May 4, 2006 at the Crossroads Church of the Nazarene, Milton, PA, the Board, by unanimous vote, **APPROVES** PennDOT's request to condemn productive agricultural lands necessary for the construction of the DA Modified alternative alignment in the Project's southern focus area as further described in the Farmland Assessment Report (PennDOT Exhibit 1) and as set forth in PennDOT Exhibit 7.

AGRICULTURAL LANDS CONDEMNATION APPROVAL BOARD

BY: Cheryl L. Cook

Cheryl L. Cook, Chairperson
Deputy Secretary
Department of Agriculture

APPENDIX C - PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION LETTER

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

January 19, 2017

Sandra Tosca
PA Department of Transportation
District 3-0
715 Jordan Avenue
PO Box 218
Montoursville, PA 17754-0218

Ms. Tosca,

On Tuesday July 12, 2016, staff from the PA DEP Northcentral Region participated in a pre-application meeting to discuss stormwater management issues arising in the Southern Section of the Central Susquehanna Valley Thruway (CSVT) project. The meeting provided an opportunity to revisit some of my staff's other concerns relating to the Southern Section's proposed route.

The most significant environmental issue in the Southern Section of the project related to two ash basin impoundments owned by Talen Energy, which are located within the currently proposed roadway alignment. The DEP remains willing and eager to assist PennDOT in ultimately completing the entire CSVT project in any manner that is determined, but wanted to bring the following concerns to your attention. As my staff initially expressed at a September 12, 2014 meeting, those basins are regulated individually by the Dam Safety Program and Waste Management Program, and permits to modify them will be required from each program—in sequence—prior to any review by the DEP of the necessary erosion and sediment control, water obstruction and encroachment, or post-construction stormwater permit applications.

The challenges posed by the ash basins relate not only to the timeline of events, but also to numerous environmental issues to be considered and addressed in connection with the entire CSVT project. Constructing the roadway over the ash basins raises several major concerns, including impacts to ground water, private water supplies, surface water discharges, and potential adverse impacts to the regulated dams associated with the ash basins. Compromising the structural integrity of these dams could have significant impacts on property, human life, and the environment.

The DEP has continuously monitored and regulated high hazard dams and has been especially mindful of ash basins since the failure of the Kingston Ash Basin in 2008. While it was originally expected that the approximately 100-foot depth of the ash basins would be saturated only in the lower 70 feet, recently completed geotechnical testing of the ash basins have shown that there is less than 10 feet of dry ash material within the upper section of the basins and the

majority of the ash below 10 feet is not only saturated but flowable. This fact has only heightened our concern with the stability of the material and thus, concern for potential impacts as a result of the construction of a major roadway on top of the basins.

It is our understanding that the plan for construction might include pre-loading the portion over the ash basins in an effort to push some of the water out of the basin. The application of such pressure, combined with the local geology, has the potential to mobilize liquid from the material in the basin into the groundwater aquifer. That groundwater serves as the sole source of drinking water for several private homeowners in the nearby vicinity, as well as a source for public water supplies.

The ash basins also create significant stormwater challenges since stormwater facilities, with the exception of conveyance channels, will not be allowed to be constructed within the ash basins. The roadway's vertical alignment in this area will limit where stormwater can be conveyed. This could result in large volumes of stormwater being conveyed outside the basins to points which could be overloaded with stormwater. Depending on the relocation of this stormwater, it could also have an impact on the recharge rate of the aquafer.

In order to pursue the present configuration of the Southern Section, PennDOT must do a complete analysis of those potential impacts to ensure compliance with the dams' regulatory requirements. That analysis must be submitted with the application to amend the existing permits held by Talen Energy. Any portion of the roadway on the basin will require modifications/amendments to the existing permits. Under these circumstances, it is likely that Talen Energy may require the transfer of ownership of the dams, and of the related permits, to PennDOT. Upon such transfer PennDOT would assume the potential monetary liabilities associated with ownership of the ash basins, including a bond for the existing waste disposal. While the DEP cannot estimate the potential liability resulting from impacts to either the high hazard dams or groundwater should they occur in the future, the current bonding requirement of over $2.8 million would fall to PennDOT as the operator of the facility. A land use change to include a project such as this roadway would significantly increase the bond amount required by the DEP. Also, considering the lack of consolidation of the ash over the years, the deregulation of these facilities as dams in the future seems unlikely.

Finally, at the July 2016 meeting, the DEP reiterated that the permitting process for the Dam Safety and Waste Management Programs will take some time, which could impact the project timeline. Given our understanding that the goal of PennDOT is to let these projects out for bid in early 2019 and the fact that no applications have been received by the Dam Safety or Waste Management programs with the DEP, I will state that in our opinion, the let date may not be practical.

Although not opposed to the current configuration during the Environmental Impact Statement review process in 2003, the recent geotechnical data made available highlighting the flowable nature of the ash have changed our position. The concerns expressed above lead me to recommend that PennDOT at the very least minimize the project's contact with the ash basins, and that ideally PennDOT completely avoid all contact with them.

In closing, I wish to emphasize that the Department's concerns at this point stem only from the current configuration of the Southern Section of the CSVT project in the area of the ash basins. The DEP wishes to work with your agency on whatever path for the project is ultimately chosen and appreciates any opportunity to discuss a path forward.

Should you have any questions, please feel free to contact me by email at mkohl@pa.gov or by phone at 570.327.3695.

Sincerely,

Marcus Kohl
Regional Director

APPENDIX D -
FARM INTERVIEW FORM

Project:	**Central Susquehanna Valley Thruway (CSVT)**		
Interviewer(s):		Interview Date:	

Property Information

Property Owner Name:			
Impacted Tax Parcel No.:			
Parcel Address:			
Mailing Address:			
Telephone No.:			
How long have you owned proprty?			
How long has the property been farmed?			

Farm Information

Are you current farm operator?	Full Time or Part-time?
Is this base of the operation? If no, where is the base of operation?	
Is your farm the only source of income? **If no, what is/are your other income sources?**	
Do you hire farm workers? If so how many and when?	
Operation total size	
Tye of Farm (crops, livestock, organic, etc)	
Acres owned and location:	
Acres leased and location:	
Types of crops grown, acres in each, and typical yield	
Note location of the most productive fields	
Types and numbers of livestock raised	
List farm related buildings and their purpose	
Access routes to farm parcels impacted by CSVT	
What farm products do you sell and where?	
Where do you purchase your farm supplies?	
What is primary source of water and where is it locations? More than 1? What are they used for?	
On site sewage disposal unit(s)?	
Any field drainage strucutres located on your property?	
What are future plans for the property?	
What is largest piece of machnery and its size (height/weight)?	
In your opinion, how will this project affect your operation?	

APPENDIX E -
FARMLAND CONVERSION
IMPACT RATING AND NRCS RESPONSES

449 Eisenhower Boulevard, Suite 300
Harrisburg, PA 17111-2302

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com

SKELLY AND LOY
ENGINEERING - ENVIRONMENTAL CONSULTANTS

Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

February 18, 2019

Ms. Yuri Plowden
State Soil Scientist
Natural Resources Conservation Service
359 E. Park Drive, Suite 2
Harrisburg, Pennsylvania 17111

Re: S.R. 0015, Section 088, Central Susquehanna Valley Transportation Project, Southern Section, Monroe Township, Snyder County, Pennsylvania

Dear Ms. Plowden:

Skelly and Loy, Inc. has been retained to obtain environmental clearance for the referenced USDOT FHWA/PennDOT District 3-0 transportation improvement project in Monroe Township, Snyder County, Pennsylvania. Due to engineering constraints to the Central Susquehanna Valley Transportation Project (CSVT) area, a Recommended Preferred Alternative through the southern section has been revised and is included with this submission. The project area is illustrated on Exhibit 1. The site is shown by the USDA NRCS soils maps to contain mapping units classified as Prime Farmland Soils and Farmland Soils of Statewide Importance, illustrated on Exhibit 2, with the Recommended Preferred Alternative.

As part of our environmental studies, we have preliminarily assessed the impact of the proposed project on Prime and Statewide Important Farmland Soils in accordance with the Federal Farmland Protection Policy Act (FPPA) of 1981, as amended 1994. Since the proposed project is being partially funded by the FHWA, a Farmland Conversion Impact Rating Form (NRS-CP-106) has been completed. A summary of rationale is included for Parts III, IV, and VI along with a summary of impacted soils. This correspondence is a request for a NRCS Land Evaluation to be completed. We respectfully await your completion of Parts II and V and concurrence on Part IV. Upon receipt, we will complete Part VII.

If you have any concerns or questions, please contact me at the above number. Thank you in advance for your time.

Sincerely yours,

SKELLY and LOY, Inc.

Eric Bruggeman

Eric Bruggeman
Environmental Specialist

Enclosures
cc: R95-0129.003
File: 1-FCIR_Southern Section_021819.docx

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 2/11/19	4. Sheet 1 of 1
1. Name of Project **S.R. 0015, Section 088**	5. Federal Agency Involved **U.S. DOT - FHWA**	
2. Type of Project **Transportation/Highway**	6. County and State **Snyder County, Pennsylvania**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	456.97			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	24.00			
C. Total Acres In Corridor	480.97			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	141.05			
B. Total Acres Statewide And Local Important Farmland	173.47			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — **Maximum Points**				
1. Area in Nonurban Use (15)	10			
2. Perimeter in Nonurban Use (10)	9			
3. Percent Of Corridor Being Farmed (20)	15			
4. Protection Provided By State And Local Government (20)	20			
5. Size of Present Farm Unit Compared To Average (10)	10			
6. Creation Of Nonfarmable Farmland (25)	7			
7. Availablility Of Farm Support Services (5)	5			
8. On-Farm Investments (20)	18			
9. Effects Of Conversion On Farm Support Services (25)	5			
10. Compatibility With Existing Agricultural Use (10)	5			
TOTAL CORRIDOR ASSESSMENT POINTS (160)	104	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) (100)	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) (160)	104	0	0	0
TOTAL POINTS *(Total of above 2 lines)* (260)	104	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☑ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

FARMLAND CONVERSION IMPACT RATING
RATIONALE FOR SITE ASSESSMENT CRITERIA (PART III AND IV)
IN ACCORDANCE WITH 7 CFR 658.5(b)
S.R. 0015, SECTION 088
SOUTHERN ALIGNMENT

Part III

A. Total acres to be converted directly: 456.97
B. Total acres to be converted indirectly or to receive services: 24.00
C. Total acres in corridor: 480.97

Part IV

A. Total Acres Prime Farmland: 141.05
B. Total Acres Statewide Important Farmland: 173.47

FARMLAND CONVERSION IMPACT RATING
RATIONALE FOR SITE ASSESSMENT CRITERIA (PART VI)
IN ACCORDANCE WITH 7 CFR 658.5(b)
S.R. 0015, SECTION 088
SOUTHERN ALIGNMENT

1. Area in Nonurban Use (15 maximum): Approximately 68% of the surrounding land use within one mile of the project area is in nonurban use. A score of 10 points is assigned.

2. Perimeter in Nonurban Use (10 maximum): Approximately 85% of the perimeter of the project area is in nonurban use. A score of 9 points is assigned.

3. Percent of Corridor Being Farmed (20 maximum): Approximately 70% of the project area is being farmed. A score of 15 points is assigned.

4. Protection Provided by State and Local Government (20 maximum): There are multiple parcels within Agricultural Security Areas. A score of 20 points is assigned.

5. Average Farm Size Unit Compared to Average (10 maximum): The average farm size for Snyder County is 98 acres according to the USDA 2012 data. A score of 10 points is assigned as the average farm unit is as large or larger.

6. Creation of Non-Farmable Farmland (25 maximum): If this site is chosen, remaining farmland equal to approximately 10% of the converted farmland would become non-farmable. A score of 7 is assigned.

7. Availability of Farms Support Services (5 maximum): All required farm support services are available. A score of 5 points is assigned.

8. On-Farm Investments (20 maximum): The farms in the project area have a moderate amount of on-farm investments. A score of 18 points is assigned.

9. Effects of Conversion on Farm Support Services (25 maximum): The conversion of farmland in this area may cause a slight reduction for demand of farm support services. A score of 5 points is assigned.

10. Compatibility with Existing Agricultural Use (10 maximum): The project is anticipated to be tolerable to existing agricultural use of the surrounding farmland. A score of 5 points is assigned.

SUMMARY OF FARMLAND OF STATEWIDE IMPORTANCE

Impact	Symbol	Unit	Classification	Acres
Permanent	ArC	Alvira silt loam, 8 to 15 percent slopes	Farmland of statewide importance	5.59
Permanent	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	4.19
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	4.36
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.66
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.21
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.65
Permanent	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.98
Permanent	AoC	Allenwood and Washington soils, 8 to 15 percent slopes	Farmland of statewide importance	4.77
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	4.15
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	4.51
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	3.55
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	6.76
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	7.88
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	10.28
Permanent	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	16.12
Permanent	Hv	Holly silt loam	Farmland of statewide importance	1.56
Permanent	Hv	Holly silt loam	Farmland of statewide importance	2.23
Permanent	LnC	Leck kill shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	11.45
Permanent	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.26
Permanent	WeB	Weikert shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.63
Permanent	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.27
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.04
Permanent	Hz	Holly silt loam, rarely flooded	Farmland of statewide importance	5.80
Permanent	Bd	Basher soils, frequently flooded	Farmland of statewide importance	0.18
Permanent	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.01
Permanent	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	2.46
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.12
Permanent	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	6.22
Permanent	CaC	Calvin-Klinesville shaly silt loams, 8 to 15 percent slopes	Farmland of statewide importance	6.73
Permanent	CaC	Calvin-Klinesville shaly silt loams, 8 to 15 percent slopes	Farmland of statewide importance	8.61
Permanent	Hv	Holly silt loam	Farmland of statewide importance	5.50
Permanent	Hz	Holly silt loam, rarely flooded	Farmland of statewide importance	6.47
Permanent	Hz	Holly silt loam, rarely flooded	Farmland of statewide importance	7.98

SUMMARY OF FARMLAND OF STATEWIDE IMPORTANCE

Permanent	LnC	Leck kill shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.40
Permanent	LnC	Leck kill shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	1.73
Permanent	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.12
Permanent	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	1.93
Permanent	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	7.24
Permanent	WsC	Wheeling soils, 8 to 15 percent slopes	Farmland of statewide importance	8.68
Temporary	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.06
Temporary	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.34
Temporary	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.73
Temporary	AoC	Allenwood and Washington soils, 8 to 15 percent slopes	Farmland of statewide importance	0.16
Temporary	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.28
Temporary	BkC	Berks shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.86
Temporary	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.36
Temporary	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	0.64
Temporary	HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	3.73
Temporary	Hv	Holly silt loam	Farmland of statewide importance	0.12
Temporary	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.06
Temporary	WeB	Weikert shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.49
Temporary	BkB	Berks shaly silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.02
Temporary	Hz	Holly silt loam, rarely flooded	Farmland of statewide importance	0.23
Temporary	CaC	Calvin-Klinesville shaly silt loams, 8 to 15 percent slopes	Farmland of statewide importance	0.80
Temporary	Hv	Holly silt loam	Farmland of statewide importance	0.21
Temporary	MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	0.09

PERMANENT FARMLAND OF STATEWIDE IMPORTANCE	164.28
TEMPORARY FARMLAND OF STATEWIDE IMPORTANCE	9.19
TOTAL FARMLAND OF STATEWIDE IMPORTANCE	**173.47**

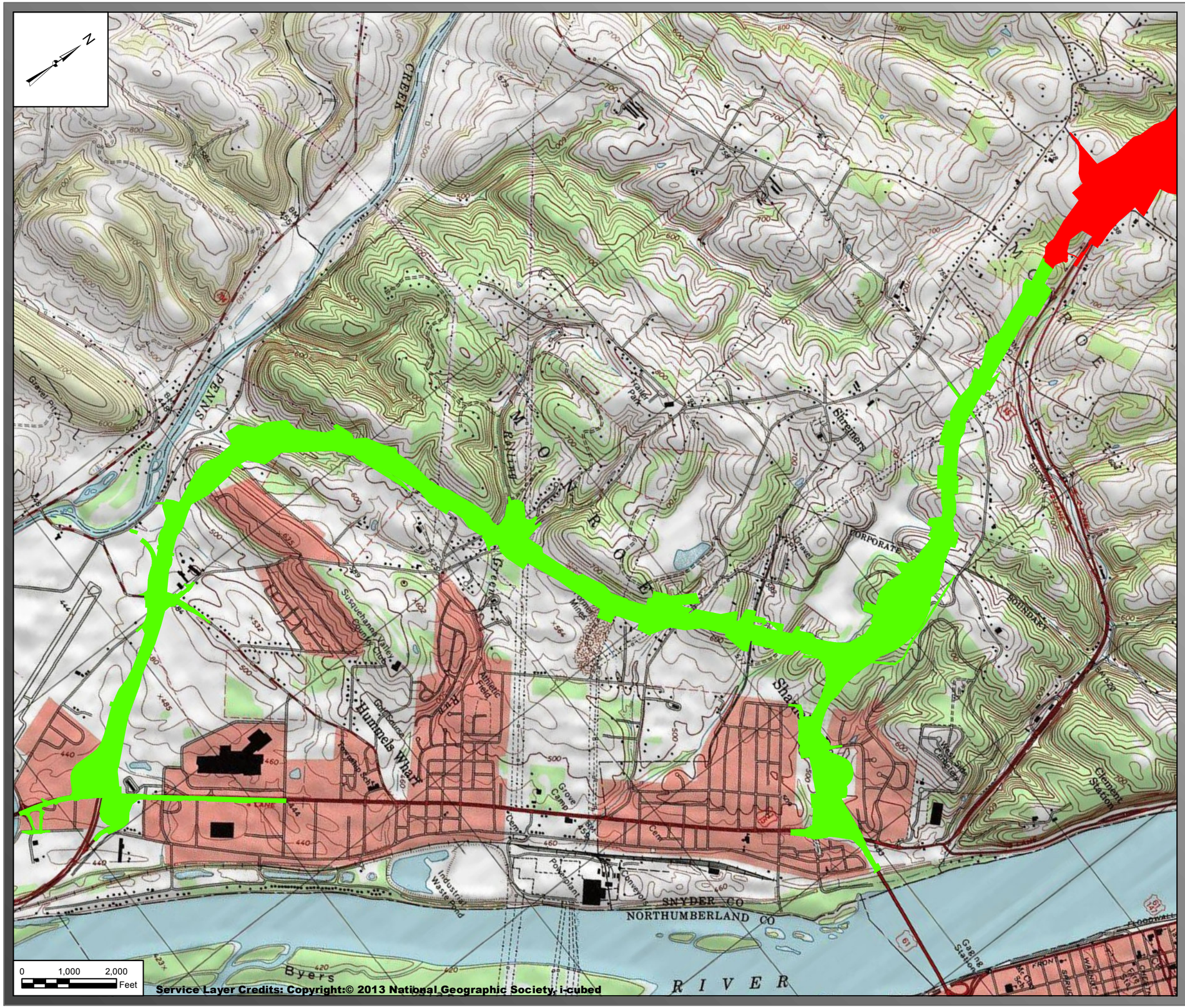
SUMMARY OF PRIME FARMLAND SOIL IMPACTS

Impact	Symbol	Unit	Classification	Acres
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.69
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.85
Permanent	WbB	Watson silt loam, 3 to 8 percent slopes	All areas are prime farmland	1.34
Permanent	AbB	Albrights silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.26
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.02
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.58
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.73
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	1.64
Permanent	HtB	Hartleton channery silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.91
Permanent	HtB	Hartleton channery silt loam, 3 to 8 percent slopes	All areas are prime farmland	31.37
Permanent	LnB	Leck kill shaly silt loam, 3 to 8 percent slopes	All areas are prime farmland	6.26
Permanent	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	0.04
Permanent	EsB	Elliber cherty silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.67
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	10.65
Permanent	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	2.01
Permanent	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	3.59
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.18
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	1.24
Permanent	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	2.23
Permanent	Bb	Barbour-Linden complex, rarely flooded	All areas are prime farmland	0.33
Permanent	Bb	Barbour-Linden complex, rarely flooded	All areas are prime farmland	1.08
Permanent	LnB	Leck kill shaly silt loam, 3 to 8 percent slopes	All areas are prime farmland	1.37
Permanent	LnB	Leck kill shaly silt loam, 3 to 8 percent slopes	All areas are prime farmland	4.83
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.32
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.46
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.47
Permanent	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	1.76
Permanent	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	3.41
Permanent	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	3.45
Permanent	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	16.31
Permanent	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	0.18
Permanent	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	4.73
Permanent	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	33.80

SUMMARY OF PRIME FARMLAND SOIL IMPACTS

Temporary	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.18
Temporary	AbB	Albrights silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.35
Temporary	HtB	Hartleton channery silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.21
Temporary	HtB	Hartleton channery silt loam, 3 to 8 percent slopes	All areas are prime farmland	1.45
Temporary	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	0.26
Temporary	EsB	Elliber cherty silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.10
Temporary	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.42
Temporary	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	0.02
Temporary	WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	0.05
Temporary	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.01
Temporary	AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	0.09
Temporary	MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.10
Temporary	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	0.01
Temporary	WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	0.03

PERMANENT PRIME FARMLAND SOILS	137.77
TEMPORARY PRIME FARMLAND SOILS	3.28
TOTAL PRIME FARMLAND SOILS	**141.05**



C S V T

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *ALCAB Preferred Alternative LOD (1/17/2019)*
- *DAM Approved by ALCAB (5/8/06) Northern Section*

pennsylvania
DEPARTMENT OF TRANSPORTATION

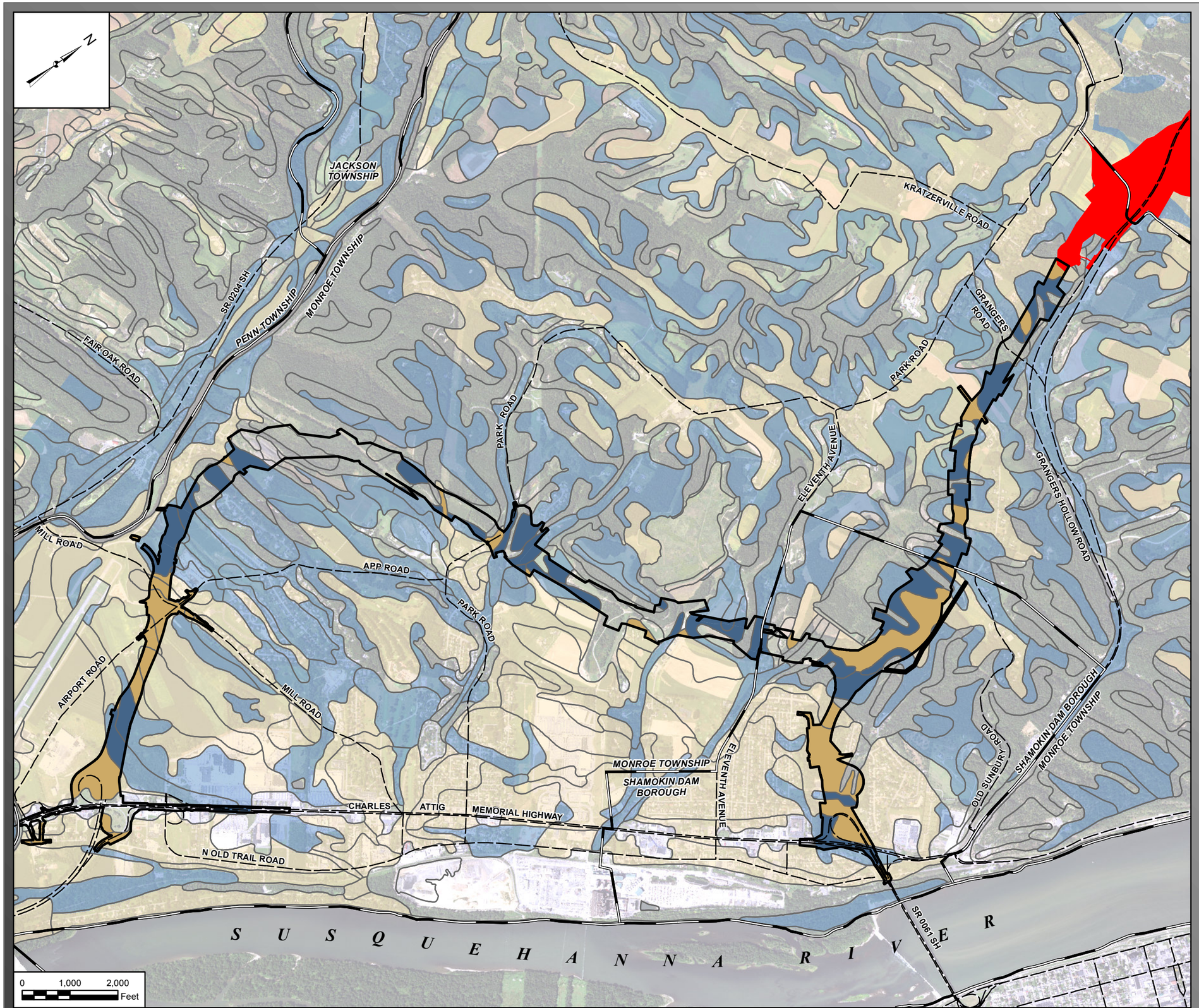
SKELLY and LOY, Inc.	February, 2019

SOUTHERN SECTION

EXHIBIT 1

LOCATION MAP

Job No.: R93-0129.001	Scale: 1" = 2,000'



C S V T

SOUTHERN SECTION
SR-0015 SECTION 088

LEGEND

- *ALCAB Preferred Alternative LOD (1/17/2019)*
- *DAM Approved by ALCAB (5/8/06) Northern Section*
- *Soil Boundaries*
- *Impacted Prime Farmland Soil*
- *Impacted Soil of Statewide Importance*
- *Prime Farmland Soil*
- *Soil of Statewide Importance*
- *State Roads*

pennsylvania
DEPARTMENT OF TRANSPORTATION

SKELLY and LOY, Inc.	February, 2019

SOUTHERN SECTION

EXHIBIT 2

SOILS MAP

Job No.: R93-0129.001	Scale: 1" = 2,000'

USDA

United States Department of Agriculture

March 4, 2019

Eric Bruggeman
Environmental Specialist
Skelly and Loy
449 Eisenhower Blvd., Suite 300
Harrisburg, PA 17111-2302

Subject: SR 0015, Section 088, Central Susquehanna Valley Transportation Project, Southern Section, Monroe Township, Snyder County, PA

Dear Mr. Bruggeman:

Recently our office conducted a review of the above referenced project relating to the Farmland Protection Policy Act and the Farmland Conversion Impact Rating Form (CPA-106). This project refers to a Recommended Preferred Alternative route. The project receives some funding from the Federal Highway Administration (FHWA).

Thank you for providing the shapefile for the Recommended Preferred Alternative. I was able to import this into websoilsurvey and create an accurate soil map with farmland classification data. Based on the information provided, the Relative Value of Farmland to be converted is 48 points, and the Total Site Assessment Points are 152. No additional action is required with regards to the Farmland Protection Policy Act since the total site assessment is less than 160 points. Attached is a copy of form CPA-106 for your records and the soil survey map that was used to determine the acreage of farmland.

If you have additional questions or concerns, please feel free to contact me at (717)-237- 2207 or e-mail to yuri.plowden@pa.usda.gov.

Sincerely,

Yuri Plowden Digitally signed by Yuri Plowden
Date: 2019.03.03 10:26:58 -05'00'

Yuri Plowden
NRCS, State Soil Scientist of Pennsylvania

Natural Resources Conservation Service
359 East Park Drive, Suite 2
Harrisburg, PA 17111-2747
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An Equal Opportunity Provider and Employer

Helping People Help the Land

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request **2/11/19**	4. Sheet 1 of **1**
1. Name of Project **S.R. 0015, Section 088**	5. Federal Agency Involved **U.S. DOT - FHWA**	
2. Type of Project **Transportation Highway**	6. County and State **Snyder County, Pennsylvania**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS **2/18/19**	2. Person Completing Form **Yuri Plowden, NRCS**
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated | Average Farm Size **98**
5. Major Crop(s) **Forage land and Corn**	6. Farmable Land in Government Jurisdiction **Acres: 130,150** **% 30**	7. Amount of Farmland As Defined in FPPA **Acres: 86,580** **% 20**
8. Name Of Land Evaluation System Used **LESA**	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS **3/4/19**

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	**456.97**			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	**24**			
C. Total Acres In Corridor	**480.97**			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	**141.05**			
B. Total Acres Statewide And Local Important Farmland	**173.8**			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	**0.24**			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	**30.5**			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	48			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	**10**			
2. Perimeter in Nonurban Use	10	**9**			
3. Percent Of Corridor Being Farmed	20	**15**			
4. Protection Provided By State And Local Government	20	**20**			
5. Size of Present Farm Unit Compared To Average	10	**10**			
6. Creation Of Nonfarmable Farmland	25	**7**			
7. Availablility Of Farm Support Services	5	**5**			
8. On-Farm Investments	20	**18**			
9. Effects Of Conversion On Farm Support Services	25	**5**			
10. Compatibility With Existing Agricultural Use	10	**5**			
TOTAL CORRIDOR ASSESSMENT POINTS	160	**104**	**0**	**0**	**0**
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	**48**	**0**	**0**	**0**
Total Corridor Assessment (From Part VI above or a local site assessment)	160	**104**	**0**	**0**	**0**
TOTAL POINTS *(Total of above 2 lines)*	260	**152**	**0**	**0**	**0**

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

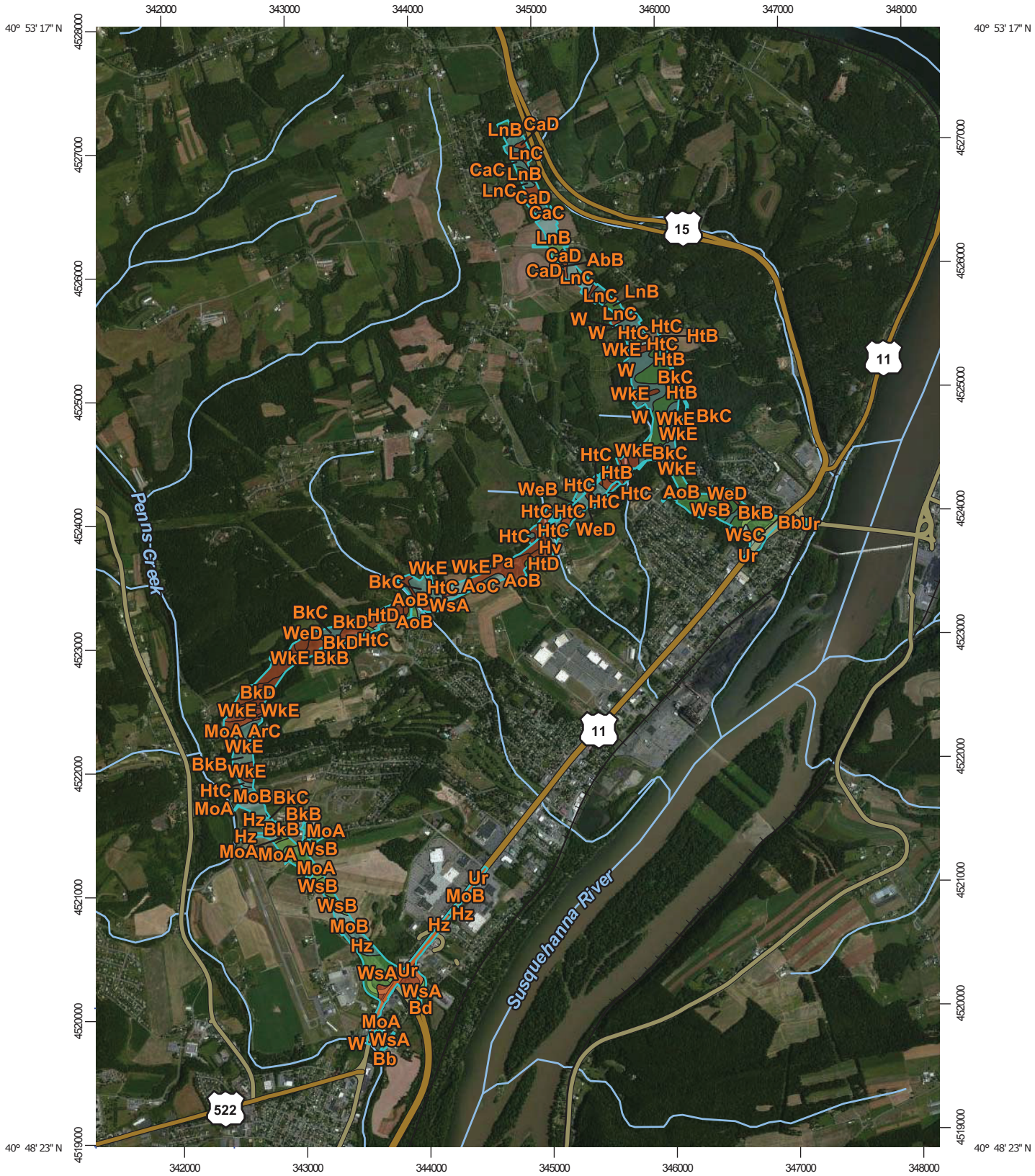
(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Farmland Classification—Snyder County, Pennsylvania
(SR0015, Section 088 snyder county, pa)



Map Scale: 1:44,100 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 500 1000 2000 3000

Feet: 0 2000 4000 8000 12000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Snyder County, Pennsylvania
Survey Area Data: Version 12, Sep 19, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 26, 2011—Jul 2, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AbB	Albrights silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.6	0.1%
AnA	Allenwood gravelly silt loam, 0 to 3 percent slopes	All areas are prime farmland	0.0	0.0%
AoB	Allenwood and Washington soils, 3 to 8 percent slopes	All areas are prime farmland	7.7	1.6%
AoC	Allenwood and Washington soils, 8 to 15 percent slopes	Farmland of statewide importance	5.0	1.0%
ArC	Alvira silt loam, 8 to 15 percent slopes	Farmland of statewide importance	5.6	1.2%
Bb	Barbour-Linden complex, rarely flooded	All areas are prime farmland	1.4	0.3%
Bd	Basher soils, frequently flooded	Farmland of statewide importance	0.2	0.0%
BkB	Berks channery silt loam, 3 to 8 percent slopes	Farmland of statewide importance	7.0	1.5%
BkC	Berks channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	20.5	4.3%
BkD	Berks channery silt loam, 15 to 25 percent slopes	Not prime farmland	12.6	2.6%
CaC	Calvin-Klinesville shaly silt loams, 8 to 15 percent slopes	Farmland of statewide importance	16.1	3.4%
CaD	Calvin-Klinesville shaly silt loams, 15 to 25 percent slopes	Not prime farmland	11.7	2.4%
EsB	Elliber cherty silt loam, 3 to 8 percent slopes	All areas are prime farmland	0.8	0.2%
HtB	Hartleton channery silt loam, 3 to 8 percent slopes	All areas are prime farmland	33.9	7.0%
HtC	Hartleton channery silt loam, 8 to 15 percent slopes	Farmland of statewide importance	54.0	11.2%
HtD	Hartleton channery silt loam, 15 to 25 percent slopes	Not prime farmland	14.4	3.0%
Hv	Holly silt loam	Farmland of statewide importance	9.7	2.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Hz	Holly silt loam, rarely flooded	Farmland of statewide importance	20.5	4.3%
LnB	Leck kill shaly silt loam, 3 to 8 percent slopes	All areas are prime farmland	12.4	2.6%
LnC	Leck kill shaly silt loam, 8 to 15 percent slopes	Farmland of statewide importance	14.6	3.0%
MoA	Monongahela silt loam, 0 to 3 percent slopes	All areas are prime farmland	15.1	3.1%
MoB	Monongahela silt loam, 3 to 8 percent slopes	Farmland of statewide importance	10.7	2.2%
Pa	Pits	Not prime farmland	16.7	3.5%
Ur	Urban land	Not prime farmland	22.9	4.8%
W	Water	Not prime farmland	0.4	0.1%
WbB	Watson silt loam, 3 to 8 percent slopes	All areas are prime farmland	1.3	0.3%
WeB	Weikert channery silt loam, 3 to 8 percent slopes	Farmland of statewide importance	1.1	0.2%
WeC	Weikert channery silt loam, 8 to 15 percent slopes	Not prime farmland	5.5	1.1%
WeD	Weikert channery silt loam, 15 to 25 percent slopes	Not prime farmland	17.5	3.6%
WkE	Weikert and Klinesville shaly silt loams, steep	Not prime farmland	64.4	13.4%
WsA	Wheeling soils, 0 to 3 percent slopes	All areas are prime farmland	23.5	4.9%
WsB	Wheeling soils, 3 to 8 percent slopes	All areas are prime farmland	44.3	9.2%
WsC	Wheeling soils, 8 to 15 percent slopes	Farmland of statewide importance	8.8	1.8%
Totals for Area of Interest			**481.0**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower