CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION PROJECT
S.R. 0015, SECTION 088
SNYDER, UNION, AND NORTHUMBERLAND COUNTIES

REEVALUATION NO. 5 OF FINAL ENVIRONMENTAL IMPACT STATEMENT AND RECORD OF DECISION

SUBMITTED TO

pennsylvania
DEPARTMENT OF TRANSPORTATION

ENGINEERING DISTRICT 3-0
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AUGUST 12, 2021

JN957129A

U.S. Department of Transportation
Federal Highway Administration

Pennsylvania Division

228 Walnut Street, Room 508
Harrisburg, PA 17101-1720
(717) 221-3461

In Reply Refer To:
HPD-PA

Snyder, Union & Northumberland Counties,
Pennsylvania
Central Susquehanna Valley Transportation (CSVT) Project
S.R. 15, Section 088
NEPA Reevaluation #5

August 25, 2021

Ms. Melissa Batula, P.E.
Acting Deputy Secretary for Highway Administration
Pennsylvania Department of Transportation
Harrisburg, Pennsylvania

ATTN: Ms. Christine Spangler, P.E., Chief, Highway Delivery Division

Dear Ms. Batula:

The Federal Highway Administration (FHWA) has reviewed the written reevaluation of the Final Environmental Impact Statement and Record of Decision prepared to assess the impacts of a design modification that requires an additional ROW acquisition for the CSVT Project, prior to approval of the next NEPA Reevaluation for the project overall. The referenced project includes the construction of approximately 13 miles of new, four-lane, limited access highway that will connect U.S. Routes 11/15 Near Selinsgrove to U.S. Route 15 near Winfield to PA Route 147 near Montandon, Pennsylvania. Consistent with 23 CFR 771.129, the documentation attached, and the referenced records support the determination that the preparation of a supplemental NEPA document is not warranted. Please continue to ensure that all design and mitigation commitments are implemented and documented appropriately.

The approved NEPA reevaluation documentation #5 is attached. Please share this documentation as appropriate. Should conditions change in final design or construction, please consult with this office promptly. We anticipate continuing to work with your office as the project continues to advance through design and construction.

If you have any questions or need additional information, please contact Deborah Suciu Smith of my staff at 717-221-3785 or Deborah.Suciu.Smith@dot.gov.

Sincerely yours,

CAMILLE A OTTO

Digitally signed by CAMILLE A OTTO
Date: 2021.08.25 13:38:31 -04'00'

Camille Otto
Director of Planning, Environment and Finance

Attachment

ec: Melissa Batula, P.E., PennDOT
Sandy Tosca, P.E., PennDOT 3-0
Matt Beck, P.E., PennDOT 3-0
Christine Spangler, P.E., PennDOT
Kelly Barber, P.E., PennDOT
Mark Lombard, PennDOT EPDS

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1.0 INTRODUCTION

The 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 US 11/15 Interchange in Monroe Township (north of Selinsgrove) in Snyder County to PA 147 in West Chillisquaque Township (at a location just south of the PA 45 Interchange near Montandon) in Northumberland County. The new highway includes a connector to PA 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. Refer to Figure 1, Regional Setting.

The Federal Highway Administration (FHWA) and the Pennsylvania Department of Transportation (PennDOT) completed an Environmental Impact Statement (EIS) for the project to fulfill the requirements of the National Environmental Policy Act (NEPA) of 1969. The Draft EIS (DEIS) and Final EIS (FEIS) documents were also prepared to serve as documentation required by the United States Army Corps of Engineers (USACE) for review and evaluation of the Clean Water Act Section 404 Permit application. A Record of Decision (ROD) was prepared and issued by FHWA in October 2003.

Since the ROD, PennDOT has completed a series of FEIS/ROD Reevaluations consistent with 23 CFR 771.129 as a continuation of the NEPA project development process to establish whether or not the project's NEPA documentation, including the ROD, remains valid for subsequent federal action. In addition, PennDOT completed a Supplemental Environmental Assessment (SEA) regarding the modification of the proposed highway alignment within the Ash Basin Focus Area in the project's Southern Section, and an associated Finding of No Significant Impact (FONSI) was prepared and issued by FHWA in January 2019. All past NEPA documentation for the CSVT project (i.e., the FEIS, ROD, SEA, FONSI, and FEIS/ROD Reevaluations) can be accessed through the Resources page on the project's website (http://www.csvt.com/resources/links/).

This document, FEIS/ROD Reevaluation No. 5, has been completed to document design updates in the project's Southern Section, which is currently in final design.

1.1 PROJECT DESCRIPTION

The CSVT project involves the construction of approximately 12.4 miles of a new four-lane, limited-access roadway with two 12-foot-wide travel lanes in each direction, 12-foot-wide right shoulders, 10-foot-wide (4-foot paved and 6-foot graded) left shoulders, and a 36-foot-wide median on new alignment. The project's southern terminus is the end of the existing Selinsgrove Bypass, where the existing US 11/15 roadway changes from a four-lane, limited-access expressway to a five-lane (four lanes with center left-turn lane) free-access facility. The northern terminus is located just south of the PA 147 and PA 45 Interchange. In addition, a PA 61 Connector will be constructed as part of the CSVT project. This new two-lane, limited-access roadway will connect the CSVT mainline to the existing US 11/15 in Shamokin Dam Borough at the west end of the existing PA 61 Veterans Memorial Bridge. The mainline portion of the CSVT project is designed for a posted speed limit of 65 miles per hour (mph).

The CSVT project was separated into two sections during the development of alternatives for the EIS. The Southern Section extends from the existing US 11/15 Interchange near Selinsgrove, northward to the vicinity of the US 15/County Line Road (State Route 1022/2002) intersection, near the Snyder County/Union County border and just south of Winfield. The Southern Section

includes the existing US 11/15 Interchange and the new interchange and connecting roadway with PA 61 at Shamokin Dam.

The Northern Section of the project extends from US 15 near the Snyder County/Union County border to PA 147 near Montandon, just south of the PA 147 Interchange with PA 45. The Northern Section includes the construction of a new bridge, approximately 4,500 feet long, to cross over the West Branch Susquehanna River. In addition, the Northern Section includes two new interchanges: the US 15 Interchange located near Winfield just north of the Snyder/Union County line in Union Township, Union County, and the PA 147 Interchange including a relocated Ridge Road (Township Road 703/State Route 1024) in Point Township, Northumberland County.

1.2 NEPA HISTORY AND REEVALUATION STATUS

FHWA approved the project's FEIS for public review in July 2003. After consideration of the received comments, a ROD was prepared and issued by FHWA on October 31, 2003. The ROD identified Alternative DA Modified Avoidance (DAMA) in Section 1 (Southern Section) of the project and River Crossing 5 (RC5) in Section 2 (Northern Section) as the Selected Alternative for the CSVT project. The alternatives were jointly referred to as Alternative DAMA/RC5. Alternative DAMA/RC5 was identified as the Recommended Preferred Alternative in the FEIS. The DA Modified Avoidance was designed to avoid an historic property, the Simon P. App farm, determined to be eligible for the National Register of Historic Places (NRHP) on July 17, 2001. One of the commitments of the FEIS included a provision for PennDOT to reevaluate the areas of impact should conditions in the study area change prior to construction, particularly with respect to the Simon P. App Property.

The project's FEIS/ROD Reevaluation No. 1 was prepared throughout 2005 and identified the design changes and associated environmental impacts between what was approved in the FEIS in July 2003 and the further developed design plans. The most significant changes resulted from the NRHP non-eligibility determination for the Simon P. App Farm (in 2005) and the associated replacement of the DAMA Alternative with the DA Modified (DAM) Alternative in the Southern Section. The FEIS/ROD Reevaluation No. 1 also determined that the scope, resources, and potential impacts of the CSVT project in the Northern Section had not changed significantly since FHWA had issued the ROD and that the RC5 Alternative impacts presented in the FEIS were generally still valid. Accordingly, Reevaluation No. 1 (which was approved on May 10, 2006) determined that a supplemental NEPA document was not warranted.

Throughout 2014 and early 2015, after the development of the project had been delayed for several years due to lack of funding, FEIS/ROD Reevaluation No. 2 was prepared to address environmental impact changes associated with continuing final design refinements in both the Northern and Southern Sections of the project. Reevaluation No. 2 concluded that the refined design did not result in any substantive additional adverse impacts to new or previously identified resources that would rise to the level of significance (when compared with the data presented in the FEIS for the Selected Alternative) and also determined that a supplemental NEPA document was not warranted. This Reevaluation was approved on June 30, 2015.

Construction activities began in the Northern Section in early 2016, when work started on the new bridge over the West Branch Susquehanna River. FEIS/ROD Reevaluation No. 3 was prepared to address environmental impact changes associated with final design refinements within the remaining portions of the Northern Section, including modifications to the proposed interchange configurations. That document, which was approved on June 22, 2016, concluded that a supplemental EIS was not warranted since the refined design did not result in any substantive

additional adverse impacts to new or previously identified resources that would rise to the level of significance (when compared with the data presented in the FEIS for the Selected Alternative).

Following the start of final design for the Southern Section, geotechnical studies performed in 2016 identified the need to modify the project alignment within the Ash Basin Focus Area to avoid previously unanticipated, significant engineering and environmental risks associated with two existing fly ash waste basins that the highway was previously proposed to cross. A SEA was prepared to assess the impacts associated with that design change and was published for public review and comment in June 2018. The SEA identified the Eastern Alternative as the Preferred Alternative for the roughly two-mile realignment around the ash basins because it had less impacts to residences, farmlands, and wetlands, had less or similar noise impacts, and better met the traffic needs of the project, when compared to the other alternatives considered. A Public Hearing on the SEA was held on June 21, 2018, and the FONSI was issued by FHWA on January 8, 2019, concurring with the selection of Eastern Alternative and concluding that a supplemental EIS was not required.

FEIS/ROD Reevaluation No. 4 was also prepared in 2018 to document further final design refinements within the Northern Section, including minor modifications to the limit of disturbance (LOD) in the area of the US 15 Interchange. That document, which was approved on July 18, 2018, concluded that a supplemental EIS was not warranted since the refined design did not result in any substantive additional adverse impacts to new or previously identified resources that would rise to the level of significance (when compared with the data presented in the FEIS for the Selected Alternative).

This Reevaluation (FEIS/ROD Reevaluation No. 5) documents further design updates in the project's Southern Section. No further design changes or new impacts have occurred in the Northern Section of the project, which remains under construction. This document has been prepared consistent with 23 CFR 771.129 as a continuation of the NEPA project development process to establish whether or not the project's NEPA documentation, including the ROD, remains valid for subsequent federal action.

1.3 PROJECT PURPOSE AND NEED

The previously determined transportation needs are still valid, and the purposes of the CSVT project remain as follows:

1. Reduce current congestion on study area roadways.

2. Improve safety for the users of the roadway system through better accommodation of all traffic, with particular attention to separating trucks and through traffic from local traffic.

3. Ensure sufficient capacity for the growth in population and employment that is expected for the study area.

2.0 PROJECT OVERVIEW

As described in Section 1.1, Project Description, the CSVT project was divided into two sections, the Southern Section and the Northern Section, to facilitate the development and evaluation of alternatives during the preliminary engineering and EIS process. Both project sections are proceeding separately through the final design and construction project development phases. The Northern Section is currently under construction, and no further design changes or new impacts have occurred in that section since Reevaluation No. 4. The Southern Section is proceeding through final design and is the focus of this document.

2.1 NORTHERN SECTION CONSTRUCTION UPDATE

The Northern Section is being constructed through four construction contracts to accommodate practical construction phasing and funding availability. The status of each contract is as follows:

- **Contract N1** – Construction of the bridge crossing the West Branch Susquehanna River including approach roadway earthwork **– completed in December 2020**

- **Contract N2** – Construction of the earthwork and non-river bridges east of the West Branch Susquehanna River and tree clearing west of the river – **completed in November 2019**

- **Contract N2.5** – Construction of the earthwork and non-river bridges west of the West Branch Susquehanna River – **completed in May 2019**

- **Contract N3** – Construction of the CSVT mainline pavement and remaining appurtenances – **45% complete; completion anticipated in December 2022**

The Northern Section has independent construction utility, providing a bypass of the congestion in Northumberland, and PennDOT currently plans to open it to traffic upon its completion, while the Southern Section is still in development.

2.2 DESIGN UPDATE/MODIFICATIONS

2.2.1 Southern Section – DAM Alternative

Final design was initiated in the Southern Section in February 2015 and is ongoing. In addition to the modification of an approximately two-mile-long portion of the proposed alignment to avoid construction on the ash basins, other refinements have been made as final design has progressed throughout the entire Southern Section. The design modifications outlined below were developed in conjunction with public and local official input gathered during the community outreach outlined in Section 2.6. The graphics for each of the design modifications described below were derived from materials presented throughout that coordination, and they illustrate the design concept at the time of the specific outreach activity. Full project constraint mapping based on the current final design is provided in Section 7.0.

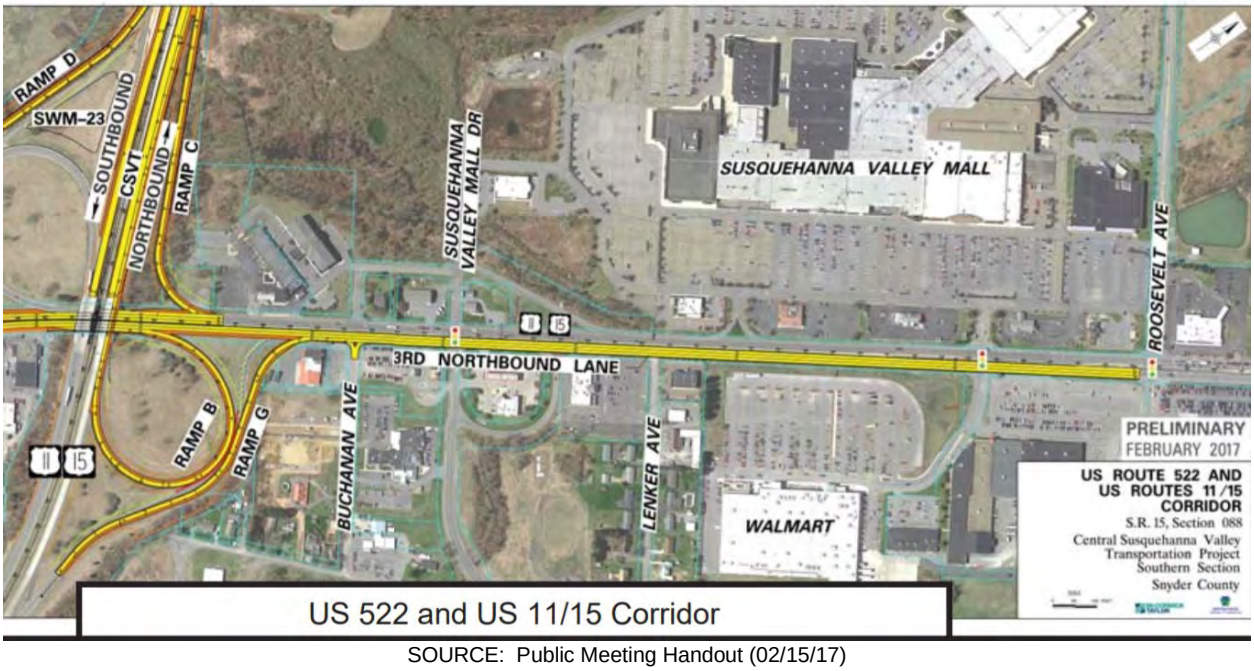
Design refinements have occurred at the following locations for the general purposes of improving traffic operations, improving the constructability of the project, minimizing environmental impacts, and/or addressing public input.

1. US 522/US 11/15 – CSVT Interchange near Selinsgrove
2. US 522/Airport Road Intersection
3. Mill Road/App Road/Airport Road Intersection
4. PA 204/Mill Road Intersection
5. Acid-Bearing Rock Shift
6. CSVT/Park Road and Fisher Road Crossing
7. Cortland Drive/Chestnut Street Connector
8. US 11/15 – CSVT/PA 61 Connector Interchange in Shamokin Dam
9. US 11/15 Split
10. US 15 Southbound/Grangers Road Intersection
11. App Road/Attig Road Temporary Turnaround
12. Talen Ash Dam Access
13. UGI Sunbury Pipeline Relocation

These 13 locations are discussed below and are referenced on the LOD comparison mapping included in Section 7.0. The environmental impacts resulting from each design refinement are included in the overall project impacts discussed in Section 3.0.

2.2.1.1 US 522/US 11/15 – CSVT Interchange near Selinsgrove

Proposed interchange ramps have been reconfigured to improve their geometry and operations. Most notably, the existing northbound off-ramp (Ramp G) geometry has been improved to flatten the curve as the ramp merges with US 11/15 northbound. Two northbound US 522 lanes are needed through the interchange to accommodate projected future traffic volumes. Therefore, a third lane on US 11/15 northbound has been added to the design, extending from the interchange to Roosevelt Avenue. These design modifications result only in minor additional right-of-way impacts.

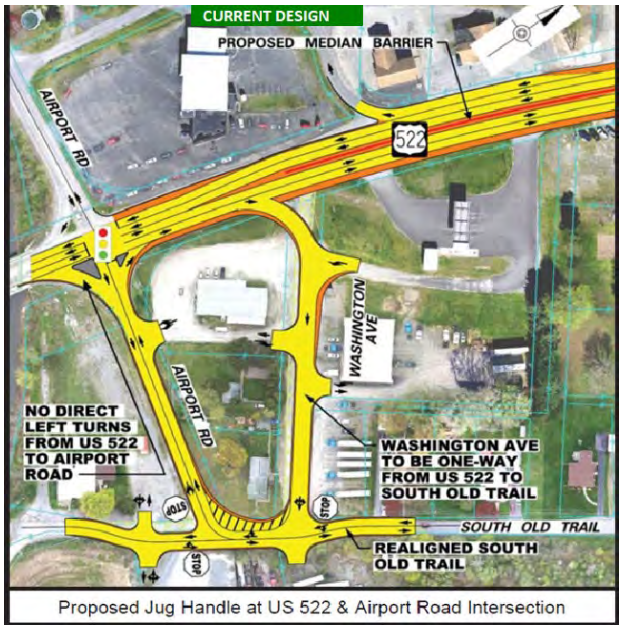


SOURCE: Public Meeting Handout (02/15/17)

Furthermore, in response to concerns from local officials and other stakeholders, the project team reviewed traffic projections and investigated alternatives to better accommodate northbound US 11/15 traffic to southbound US 522. Based on those investigations, PennDOT has proposed to add dual left-turn lanes and a new traffic signal to the end of the northbound US 11/15 off-ramp (Ramp G). This change would cause no additional environmental impacts and would improve operations by allowing northbound motorists to turn directly onto southbound US 522 rather than requiring them to first travel north and then reverse direction using the existing jug handle at Susquehanna Valley Mall Drive. However, in accordance with the Pennsylvania Vehicle Code and PennDOT policy, the proposed dual left-turn lanes and traffic signal will ultimately be constructed as part of the CSVT project only if a local government entity agrees to own, operate, and maintain the traffic signal following its installation. To date, no local government entity has indicated willingness to accept that responsibility.

2.2.1.2 US 522/Airport Road Intersection

The project's preliminary design did not extend into the US 522/Airport Road intersection. To ensure efficient traffic flow in the future, the design has been modified to extend the existing two-lane section of US 522 southbound from the US 522/US 11/15 Interchange through the Airport Road intersection and carry it across the existing Penns Creek truss bridge toward Selinsgrove. To avoid impact to the existing bridge, the existing US 522 northbound left-turn lane to Airport Road will be removed and replaced with a jug handle at Washington Avenue as illustrated below. This design modification results in minor additional right-of-way and Agricultural Security Area impacts.

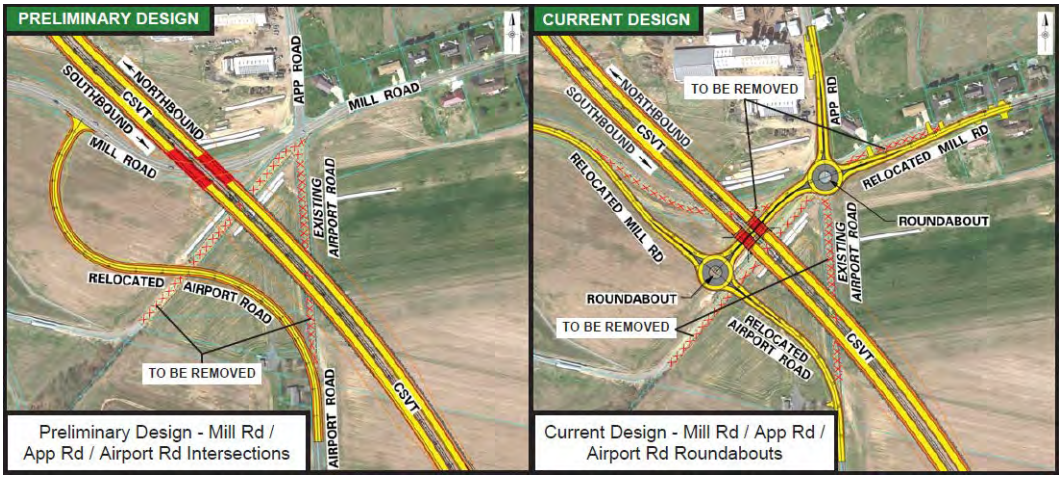


SOURCE: Public Meeting Handout (11/15/17)

2.2.1.3 Mill Road/App Road/Airport Road Intersection

The design of the Mill Road/App Road/Airport Road area has been modified to include two roundabouts. The preliminary design included two "T" intersections, which raised safety concerns related to intersection sight distance and would have required more complicated bridge construction due to the angle between CSVT above and Mill Road below. The modification improves intersection sight distance and safety and accommodates future traffic growth.

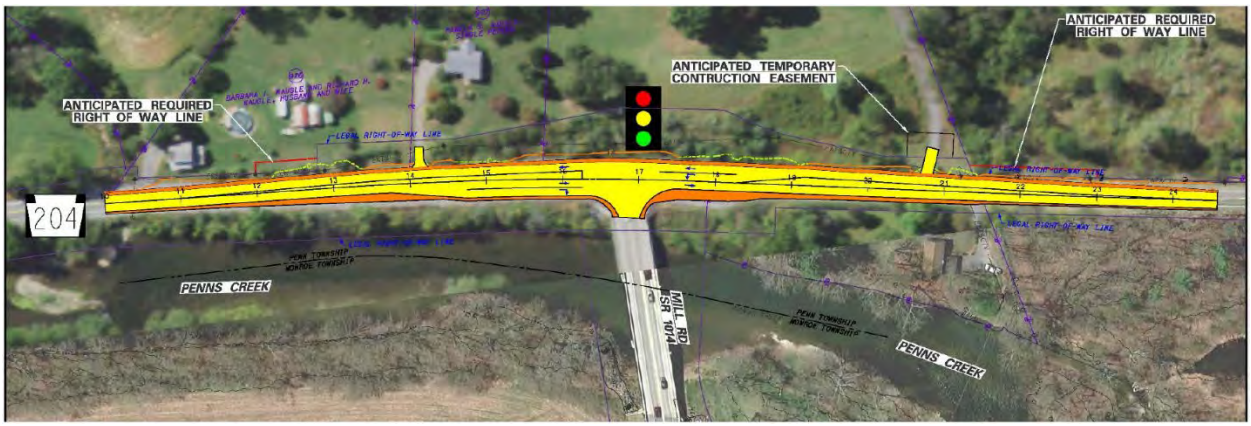
Additionally, it simplifies the construction of the CSVT bridges over Mill Road and reduces the project's impacts to Agricultural Security Areas and productive farmlands, while otherwise resulting only in minor additional right-of-way impacts overall.



SOURCE: Public Meeting Handout (02/15/17)

2.2.1.4 PA 204/Mill Road Intersection

During some phases of construction in the Mill Road/App Road/Airport Road area, traffic will be detoured through the nearby PA 204/Mill Road intersection. To improve traffic operations during these temporary conditions, a traffic signal will be installed at this location, and turn lanes will be added for right turns from northbound PA 204 and for left turns from southbound PA 204. The traffic signal and turn lanes will remain in place permanently, as Penn Township has agreed to own, operate, and maintain the traffic signal following its installation. This design modification results only in minor additional right-of-way impacts.

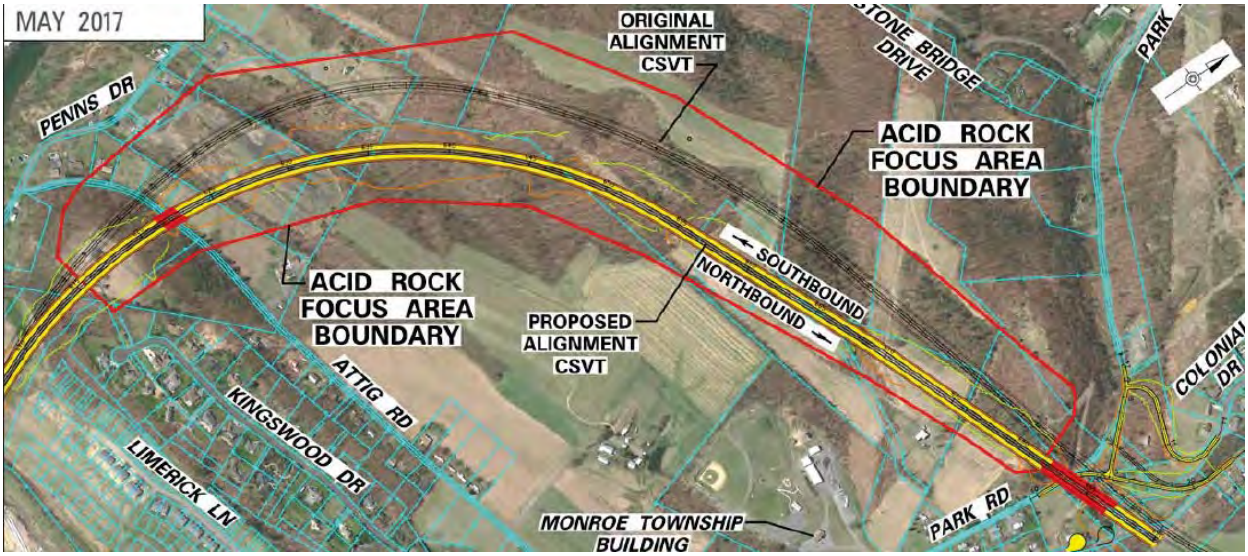


SOURCE: Emergency Services Coordination Meeting Presentation (12/08/20)

2.2.1.5 Acid-Bearing Rock (ABR) Shift

Geotechnical studies performed in 2016 revealed that there is ABR (see Section 3.2.4.1 for more information on ABR) along the previously proposed CSVT alignment between Attig Road and Park Road. There is also a very small area of acid rock just south of Attig Road.

The proposed CSVT alignment has been modified within the acid rock focus area to minimize the excavation of ABR. As shown in the figure below, the horizontal alignment has been shifted up to 400 feet south of the original alignment. The proposed shift begins approximately 1,500 feet south of Attig Road and ends near Park Road and Fisher Road. This modification will reduce the excavation of ABR by up to 80%, from approximately 2 million cubic yards to approximately 0.4 million cubic yards. Also, when combined with the alignment modification to avoid the ash basins, it provides fairly balanced earthwork for the Southern Section overall. (As originally documented in the FEIS, PennDOT has been committed to working to improve the project's balance of excavated and fill material throughout final design.)



SOURCE: Public Meeting Handout (05/25/17)

To address the remaining unavoidable excavation of ABR, the project team has coordinated with the Pennsylvania Department of Environmental Protection (PA DEP) and developed a plan that includes diverting stormwater around ABR areas and treating the excavated rock, exposed rock surfaces, and associated stormwater runoff.

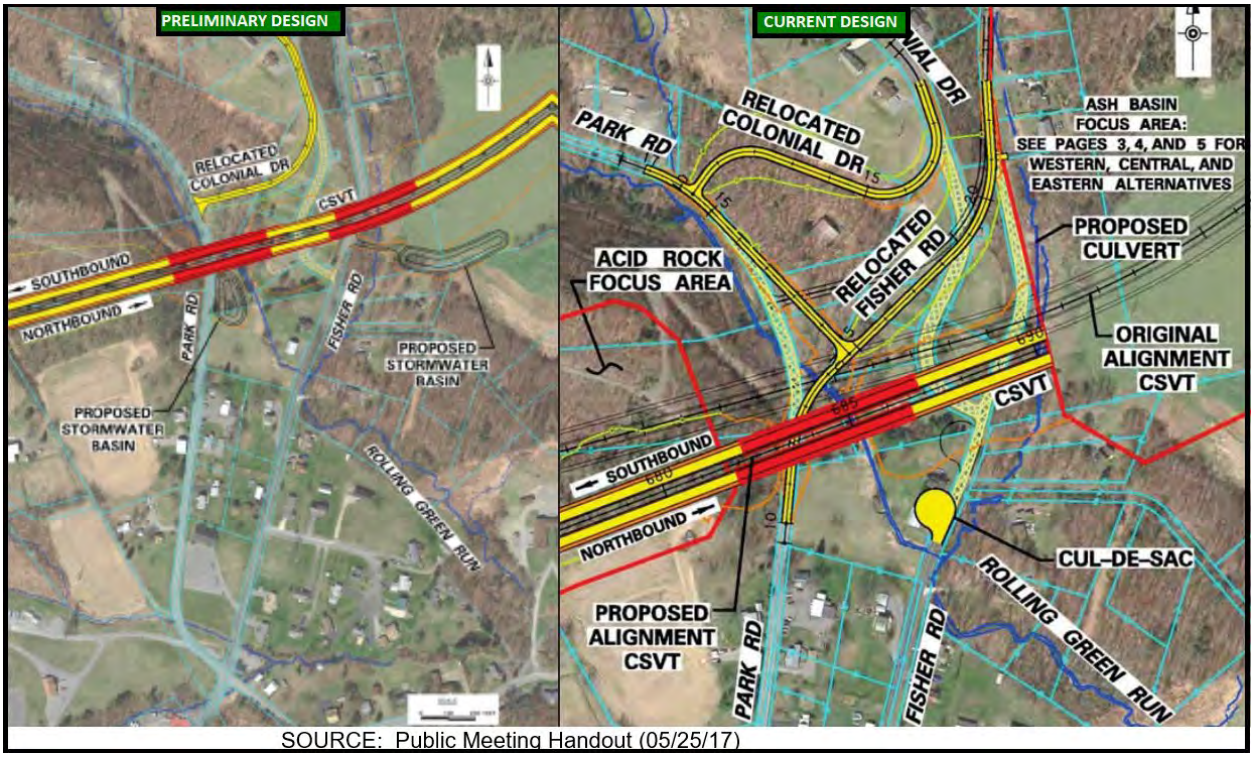
2.2.1.6 CSVT/Park Road and Fisher Road Crossing

The preliminary design in this area called for two sets of bridges to be constructed back-to-back to carry CSVT over Park Road and Fisher Road. The design also called for Colonial Drive to be realigned to form a "T" intersection with Park Road. Construction of back-to-back bridges would be difficult, requiring large, temporary ramps to place the fill between the bridges. These temporary ramps would greatly increase the footprint and impacts of the project.

Therefore, one set of three-span bridges will be constructed to carry CSVT over Park Road and Rolling Green Run. Fisher Road will be realigned to tie into Park Road just north of the new CSVT bridges. The southern portion of Colonial Drive will be realigned to intersect Park Road north of the new Park Road/Fisher Road Intersection. A cul-de-sac will be constructed at the end of the short portion of existing Fisher Road that will remain south of CSVT.

Based on feedback from the public and Monroe Township representatives, the Park Road/Fisher Road intersection will be configured so that Park Road to the south is aligned with Fisher Road to the north. This configuration was suggested because Fisher Road carries more traffic than Park Road north of CSVT and it reduces the number of vehicles that need to turn at the

intersection. Overall, these design modifications result in additional right-of-way impacts, including one additional residential displacement, and minor additional Forested land impacts. Additionally, the CSVT mainline has been realigned slightly to the south through the Park Road/ Fisher Road area to minimize ABR excavation between Attig Road and Park Road, as discussed in the previous section.



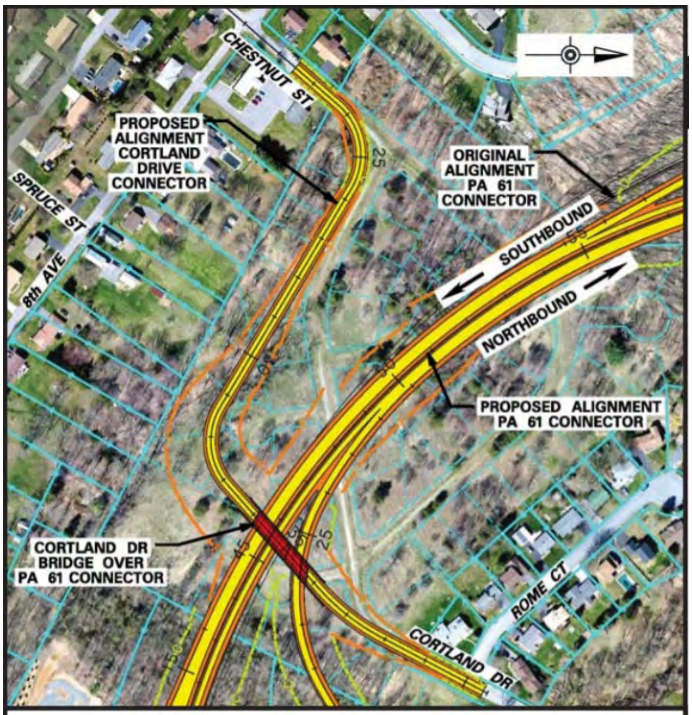
SOURCE: Public Meeting Handout (05/25/17)

2.2.1.7 Cortland Drive/Chestnut Street Connector

The project's preliminary design included an extension of Cortland Drive from its current endpoint to connect with Chestnut Street, bridging over the PA 61 Connector to connect Orchard Hills to the Gunter development. In response to a request by Shamokin Dam Borough, the project team investigated an alternate alignment that would instead extend Cortland Drive from its current endpoint to connect with Spruce Street.

The alternate connection to Spruce Street would have provided a more direct route between Orchard Hills and 11th Avenue, and it would have preserved slightly more land for future development within the Borough. However, it would have required two additional residential displacements. Support from the public was evenly split between the two alignments.

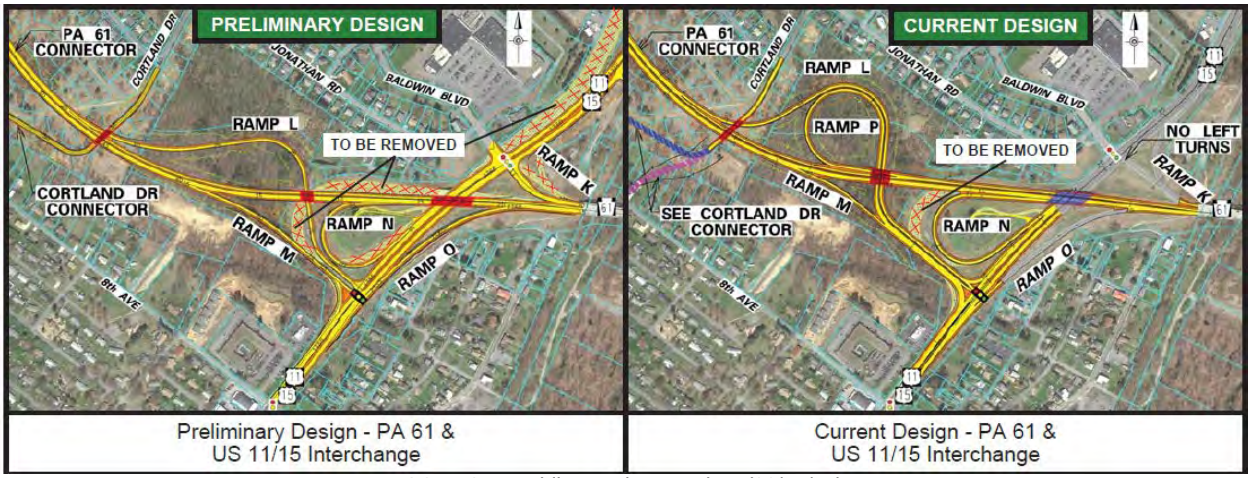
Therefore, for the primary reason of avoiding additional residential displacements, the alternate connection to Spruce Street has been dropped from consideration. The previously planned connection to Chestnut Street will be advanced through the remainder of the project development process.



SOURCE: Public Meeting Handout (11/15/17)

2.2.1.8 US 11/15 – CSVT/PA 61 Connector Interchange in Shamokin Dam

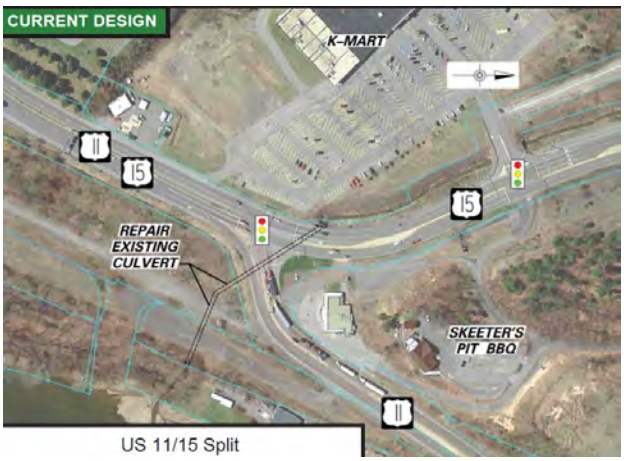
This interchange has been modified to allow traffic to move more efficiently along US 11/15. The interchange has been changed to a full trumpet-style design to provide a more free-flowing movement for PA 61 northbound traffic from Sunbury exiting to US 11/15 southbound. With the preliminary design, this movement was served by exiting onto Ramp K at the end of the Veterans Memorial Bridge and then turning left at the signal at the bottom of the ramp. With the current design, the movement is served by continuing on the PA 61 Connector over US 11/15 and exiting onto a new loop ramp, Ramp P. At the end of the new ramp, traffic can turn right onto US 11/15 southbound. This design modification results in minor additional Forested land impacts.



SOURCE: Public Meeting Handout (02/15/17)

2.2.1.9 US 11/15 Split

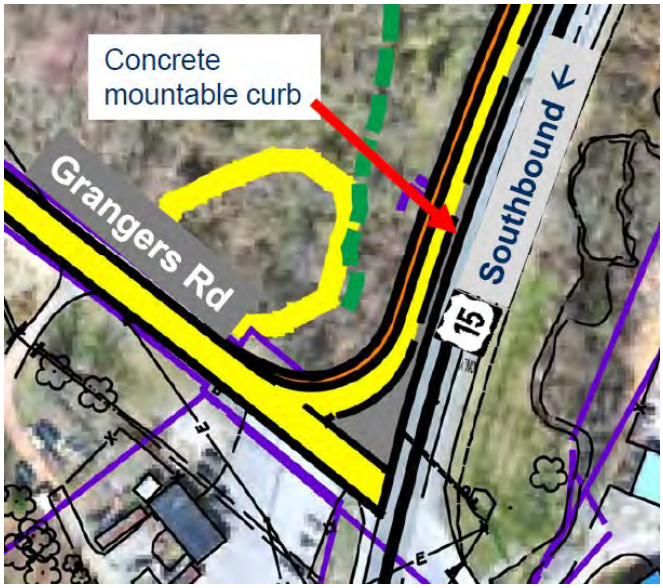
Updated analyses of traffic operations at the US 11/15 Split have indicated that the intersection functions efficiently now and in the future after CSVT is open to traffic. Therefore, the previously proposed reconfiguration of the intersection has been eliminated. After CSVT opens, PennDOT will evaluate the new traffic patterns in the area to determine if changes are required. Since the previously proposed reconfiguration would have shifted US 11/15 substantially closer to the river, this change provides the benefit of not precluding potential future development of the riverfront.



SOURCE: Public Meeting Handout (02/15/17)

2.2.1.10 US 15 Southbound/Grangers Road Intersection

Construction of the Northern Section's interchange with US 15 has required the closure of County Line Road between US 15 and Park Road. This closure, which will remain in effect until the Southern Section is completed and opened to traffic, has increased traffic volumes at the nearby intersection of southbound US 15 and Grangers Road. Therefore, to improve traffic operations and safety at this location, a right-turn lane will be added from southbound US 15 to Grangers Road. This design modification results in minor additional Forested land impacts.



SOURCE: Emergency Services Coordination Meeting Presentation (12/08/20)

2.2.1.11 Miscellaneous LOD Modifications

In addition to the modifications discussed above, minor design refinements have been made to account for temporary construction easements, permanent drainage easements, stormwater management facilities, utility relocations, local roadway improvements, structure refinements, maintenance and protection of traffic during construction, and property/construction access. For example, the LOD has been modified to account for the following:

- **Mapping Location 11** – A temporary turnaround will be constructed to accommodate turning movements by school buses and other large vehicles between App Road and Attig Road while those vehicles are detoured through this location during some phases of the construction in the Mill Road/App Road/Airport Road area.

- **Mapping Location 12** – New private access roads, replacing those impacted by the CSVT highway construction, will be built to accommodate inspection and maintenance of the dam at each ash basin.

- **Mapping Location 13** – During final design for the required relocation of their Sunbury Pipeline natural gas line in the area of the CSVT/PA 61 Connector Interchange, UGI determined that modification of the LOD was necessary to accommodate construction by directional drilling.

These design refinements generally involve minor expansions of the LOD and associated increases in required right-of-way, but they do not otherwise result in substantial changes in the project's environmental impacts.

2.2.1.12 Anticipated Construction Sequence/Schedule

The Southern Section is planned to be constructed through multiple construction contracts to accommodate practical construction phasing and funding availability. Specifically, the Southern Section is currently anticipated to be constructed through the following three contracts:

- **Contract S1** – Construction of the earthwork along the CSVT mainline and PA 61 Connector as well as local road reconfigurations and the Sunbury Road Bridge over CSVT – start anticipated in 2022

- **Contract S2** – Construction of the bridges along the CSVT mainline and PA 61 Connector as well as noise barriers – start anticipated in 2024

- **Contract S3** – Construction of the CSVT mainline and PA 61 Connector pavement and remaining appurtenances as well as modifications to existing US 11/15, US 522, and PA 61 to accommodate the interchanges – start anticipated in 2026

2.3 PERMITTING UPDATE

An Individual USACE Section 404 Permit was originally issued for the CSVT project in 2007 (with an expiration date of December 31, 2017), and a modification was most recently issued by the USACE on July 23, 2018, in order to update the permit conditions based on the further developed

project design and current impacts. Water Quality Certification for the project, under Section 401 of the Federal Clean Water Act, was issued by PA DEP in 2004. The USACE issued an extension for the Section 404 Permit on October 4, 2017, and the current expiration date is December 31, 2024.

The CSVT project also requires Standard PA DEP Waterways Obstruction and Encroachment Chapter 105 permits and Individual National Pollutant Discharge Elimination System (NPDES) Chapter 102 permits, including detailed Erosion and Sedimentation Pollution Control Plans (ESPC Plans) and Post-Construction Stormwater Management Plans (PCSM Plans), prior to any associated earthmoving activities.

The Chapter 105 permits required for the Northern Section were originally issued by PA DEP on May 7, 2015. (Note that separate Chapter 105 Permits were issued for the Northern Section's impacts in Snyder, Union, and Northumberland Counties.) As the project progressed through final design and construction, PA DEP has approved various permit amendments to reflect design modifications made since issuance of the original permits and to authorize construction of the remaining portions of the Northern Section. The Chapter 105 Permit for each county is currently scheduled to expire on December 31, 2022.

The NPDES permit for the Northern Section was originally issued by PA DEP on May 7, 2015. As the project has progressed through final design and construction, PA DEP has approved permit revisions to reflect design modifications made since issuance of the original permit and to authorize construction of the remaining portions of the Northern Section. The NPDES permit for the Northern Section is currently scheduled to expire on June 15, 2026.

Coordination with the natural resource agencies is ongoing related to the permits required to start construction of the Southern Section, including a modification to the existing Section 404 permit and new Chapter 105 and NPDES permits.

2.4 TRAFFIC ANALYSIS UPDATE

There has been no update to the overall traffic analysis for the project since FEIS/ROD Reevaluation No. 3.

2.5 PROGRAMMING STATUS

The SEDA-COG Metropolitan Planning Organization adopted its 2016-2040 Long-Range Transportation Plan in July 2016, and the plan includes the CSVT project as a fiscally constrained project.

The CSVT project is included on SEDA-COG's Transportation Improvement Program (TIP) for Federal Fiscal Years (FFY) 2021-2024. The state's Twelve-Year Program (TYP) for FFY 2021-2032 includes the TIP in its first four years (2021-2024) and the additional funding required for the remaining portions of the CSVT project in its later years (2025-2032).

2.6 PUBLIC INVOLVEMENT UPDATE

Since FEIS/ROD Reevaluation No. 4, general public outreach activities related to the Northern Section have included press releases regarding the status of the project, updates to the project website, and responses to public and media inquiries regarding specific aspects of the project or its overall status.

For the Southern Section, considerable public involvement was performed related to the ash basin avoidance alternatives analysis, which is documented within the SEA/FONSI. Most of those public involvement activities also included outreach related to the other design changes outlined in Section 2.2. In particular, public meetings were held at the Selinsgrove Middle School on February 15, May 25, and November 15, 2017. Additional community coordination was performed in 2018 as follow-up to the SEA and many of the other design modifications included in this Reevaluation. In order to help residents better understand how the highway will look from the community, PennDOT displayed a 3D computer model and photographic renderings of the proposed design on April 23 and April 25, 2018 (at Econo Lodge Inn & Suites, Shamokin Dam) and on September 19 and September 26, 2018 (at the Selinsgrove Middle School). Additional information (including the meeting handouts, presentation materials, and display boards) from each of the public and community meetings referenced in this section can be found at www.csvt.com.

As final design work for the Southern Section progressed from 2019 to 2021, the project team held numerous smaller-scale meetings with public officials, individual property owners, and/or other stakeholders to solicit input and/or address questions/concerns related to specific aspects of the project.

3.0 ENVIRONMENTAL UPDATE

This FEIS/ROD Reevaluation No. 5 documents the changes in impacts to natural, cultural, and socioeconomic resources that have occurred based on the advanced design of the project's Southern Section, changes in regulations/procedures, and changes in existing conditions within the study area.

A summary of environmental impacts at various milestones related to the southern (DAMA/DAM/ Eastern) and the northern (RC5) alignments for the CSVT project area is included in Table 1. The FEIS documented the DAMA alternative as the preferred Southern Section alternative, and FEIS/ ROD Reevaluation No. 1 documented the change of the alignment from the DAMA alternative to the DAM alternative. Both the Southern and Northern Section alignments underwent additional preliminary design as part of the Design Field View (DFV) process, and the footprint was modified based on further refinements made during final design, as documented by FEIS/ROD Reevaluation Nos. 1, 2, 3, and 4. The SEA/FONSI documented the change of the Southern Section alignment within the Ash Basin Focus Area to the Eastern Alternative. The Northern Section is currently under construction, and no design changes or new impacts have occurred since Reevaluation No. 4. The Southern Section is proceeding through final design and is the focus of this document.

Environmental impacts are presented for those resources and subject areas that have experienced a change since the ROD, including changes in regulatory requirements and changes in impacts. All other subject areas outlined in the FEIS/ROD documents have either remained the same or had negligible changes that would not affect the decision-making process. As the Southern Section progresses through final design, the impact information and mitigation details will be refined and presented in future reevaluations.

TABLE 1 – ENVIRONMENTAL IMPACT SUMMARY

Environmental Impacts	2003 FEIS/ROD	2006 FEIS/ROD Reeval. No. 1	2015 FEIS/ROD Reeval. No. 2	2016 FEIS/ROD Reeval. No. 3	2018 FEIS/ROD Reeval. No. 4	2021 FEIS/ROD Reeval. No. 5	Change from FEIS to Reeval. No. 5
SOUTHERN SECTION							
Displacements (number)							
Residential	33	31	31	31	31	38	5
Commercial Structures	4	1	1	1	1	1	-3
Agriculture (acres)							
Agricultural Security Areas	98.70	96.10	80.70	80.70	80.70	69.27	-29.43
Productive Farmland	151.60	111.90	91.40	91.40	91.40	106.44	-45.16
Habitat (acres)							
Wetlands (direct & temp acres)	4.79	4.05	3.33	3.33	3.33	3.94	-0.85
Forest Land (acres)	183.89	178.71	175.15	175.15	175.15	250.79	66.90
Old Field (acres)	157.02	126.18	103.96	103.96	103.96	88.49	-68.53
Riverine Floodplain Forest (acres)	0.05	0	0	0	0	0	-0.05
Waste Sites (number)	5	3	3	3	3	3	-2
Surface Water Resources							
Stream Relocations (number)	3	-	3	3	3	**10**	7
Bridge Crossings (number)	2	-	3	3	3	**4**	2
Culverts (number)	14	-	13	13	13	**27**	13
Total Impacts (linear feet)	16,445	13,770	12,964	12,964	12,964	17,984	1,539
T&E Species	No	No	Yes (NLE Bat)	Yes (NLE Bat)	Yes (NLE Bat)	Yes (NLE Bat)	Yes (NLE Bat)
Historic Properties	No	No	No	No	No	No	No
Section 4(f) Resources	No	No	No	No	No	No	No
Net Earthwork (Cut – Fill; CY)	2,357,000	202,912	321,088	321,088	321,088	-140,000	-2,497,000
Construction/Right-of-Way/Utility Costs	$114,027,492 (2003 $)	$110,250,000 (2005 $)	$213,650,000 (2014 $)	$222,100,000 (2015 $)	$227,200,000 (2017 $)	$390,000,000 (2020 $)	---

Environmental Impacts	2003 FEIS/ROD	2006 FEIS/ROD Reeval. No. 1	2015 FEIS/ROD Reeval. No. 2	2016 FEIS/ROD Reeval. No. 3	2018 FEIS/ROD Reeval. No. 4	2021 FEIS/ROD Reeval. No. 5	Change from FEIS to Reeval. No. 5
NORTHERN SECTION							
Displacements (number) Residential Commercial Structures	 25 0	 23 0	 24 0	 24 0	 24 0	No Changes Since FEIS/ROD Reeval No 4.	
Agriculture (acres) Agricultural Security Areas Productive Farmland	 49.0 165.6	 49.0 154.6	 49.9 105.3	 50.0 129.2	 50.0 129.6		
Habitat (acres) Wetlands (direct & temp acres) Forest Land (acres) Old Field (acres) Riverine Floodplain Forest (acres)	 2.98 181.13 38.92 5.66	 3.05 182.01 34.25 6.23	 2.90 219.42 53.04 9.40	 2.90 225.92 52.74 9.40	 2.90 226.02 52.74 9.40		
Waste Sites (number)	0	0	0	0	0		
Surface Water Resources Stream Relocations (number) Bridge Crossings (number) Culverts (number) Pipes (number) Total Impacts (linear feet)	 2 4 5 * 8,480	 2 4 5 * 9,360	 1 4 1 8 14,216	 1 4 1 8 14,480	 1 4 1 8 14,480		
T&E Species	No	No	Yes (NLE Bat)	Yes (NLE Bat)	Yes (NLE Bat)		
Historic Properties	No	No	Yes	Yes	Yes		
Section 4(f) Resources	No	No	Yes	Yes	Yes		
Net Earthwork (Cut – Fill; CY)	2,108,000	28,602	44,685	400,000	400,000**		
Construction/Right-of-Way/Utility Costs	$149,742,157 (2003 $)	$170,115,794 (2005 $)	$329,650,000 (2014 $)	$351,700,000 (2015 $)	$339,200,000 (2017 $)		

3.1 NATURAL ENVIRONMENT

Table 1 documents changes in environmental impacts for those resources affected with the design modifications outlined in Section 2.2.

3.1.1 Wetlands

The project team conducted an assessment of the wetlands within the Southern Section in 2020 to update the existing wetland conditions and to collect additional information relevant to the PA DEP Wetland Condition Level 2 Rapid Assessment requirements. There were 203 wetlands delineated within the Southern Section, with 70 of these located fully or partially within the proposed LOD. The wetlands are identified on the project mapping.

The assessment included characterizing hydrogeomorphic features and the functions and values of the wetlands. The functions and values were further evaluated using the PA DEP July 2017 – PA Wetland Condition Level 2 Rapid Assessment Protocols and the USACE's New England Descriptive Method. Because of the large number of wetlands distributed across the project study area, the wetlands were grouped based on common landscape position and hydrologic influences, including riparian and upland settings.

Riparian wetlands were located in and along perennial or intermittent streams and include floodplain bench and depressional pocket systems. The wetlands typically contained a mix of vegetation comprised of cattail, fowl manna grass, jewelweed, reed canary grass, sedge species, skunk cabbage, stiltgrass, spicebush, and red maple. The primary sources of hydrology included

seasonal flooding from adjacent channels and surface water runoff, with seasonal and perennial seep contributions in some cases.

Upland setting wetlands were located across the landscape outside of floodway and floodplain settings within the project study area and included a mix of flat, sloping, and depressional systems. The wetlands typically contained a mix of vegetation comprised of jewelweed, reed canary grass, sedge species, skunk cabbage, sensitive fern, stiltgrass, spicebush, and red maple. The primary sources of hydrology for these wetlands included surface water runoff and seasonal and/or perennial seeps.

There were 56 wetlands located in the upland settings and 147 wetlands in the riparian settings. Palustrine emergent (PEM) wetlands comprised the majority of the vegetative types, and most of the wetlands were small pockets between 0.01 and 0.10 acre in size.

The Overall Condition Index score was 0.75 for the riparian wetlands and 0.79 for the upland setting wetlands. In addition to the Level 2 Rapid Assessment, an abbreviated Function-Value evaluation was performed using the USACE New England Division's Highway Methodology Workbook Supplement Descriptive Method – Wetland Functions and Values: *A Descriptive Method.* The functions and values of the two types of wetlands are described as follows.

- Riparian wetlands provided opportunity for a combination of the principal functions of Floodflow Alteration, Sediment/Shoreline Stabilization, Groundwater Recharge/Discharge, Sediment/Toxicant Retention, Nutrient Removal, and Production Export.

- Upland setting wetlands provided opportunity for the principal functions of Groundwater Recharge/Discharge, Sediment/Toxicant Retention, Nutrient Removal, and Production Export.

The Southern Section will require numerous wetland crossings. The final design has evaluated measures to avoid and minimize wetland impacts. The current wetland impacts for the Southern Section are presented in Table 1. Overall, there is a slight reduction in the wetland impacts when comparing the 2003 (FEIS/ROD) design to the 2021 (FEIS/ROD Reeval. No. 5) design. Avoidance and minimization measures will continue to be incorporated into the project design, where feasible, as permitting coordination continues with the natural resource agencies.

3.1.2 Streams

The project team conducted an assessment of streams within the Southern Section in 2020 to update the existing stream conditions and to collect additional information relevant to the PA DEP Riverine Condition Level 2 Rapid Assessment requirements. The project study area is characterized by a few small, named streams and numerous small, unnamed tributaries within the Penns Creek and Susquehanna River Watershed. The 2020 study evaluated 27 streams (i.e., watercourses/surface waters), including 9 tributaries to Penns Creek and 18 tributaries to the Susquehanna River. The streams are identified on the project mapping. The streams were classified by flow regime, with 15 perennial streams, 9 intermittent streams, and 3 ephemeral channels identified. The original stream assessments conducted in the July 2000 study classified all streams using a system designed specifically for that study and were correlated to the 2020 assessment, including Types I and II: Perennial Streams; Type III: Intermittent Streams, and Type IV: Ephemeral Streams. Details regarding the stream assessment are documented in the 2020 Stream Assessment Report, February 2020.

According to Pennsylvania Code, Title 25, Chapter 93.9m, tributaries to the Susquehanna River have protected water uses for Warm Water Fishes (WWF) and Migratory Fishes (MF). According to the Pennsylvania Fish and Boat Commission (PFBC), the streams are not identified as, and do not drain to, stocked trout waters or wild trout streams. No time-of-year restrictions for stocked or wild trout are anticipated for any in-stream work in the 18 tributaries to the Susquehanna River.

PA DEP's January 2017 – PA Riverine Condition Level 2 Rapid Assessment Protocols were used to assess perennial and intermittent streams. Riverine Condition Index (RCI) scores range from 0.5 to 1.0, with 0.5 representing the lowest value and 1.0 representing the highest value. The PA DEP RCI scores for streams evaluated in the 2020 investigation averaged 0.65 for intermittent streams and 0.61 for perennial streams. The RCI scores for the Southern Section streams reflect the moderate quality of these resources.

The Southern Section will require numerous stream crossings. The final design has evaluated avoidance and minimization measures for each of the crossing locations. The stream impacts for the Southern Section are presented in Table 1. Overall, there is a slight increase in the overall stream impacts when comparing the 2003 (FEIS/ROD) design to the 2021 (FEIS/ROD Reeval. No. 5) design. Avoidance and minimization measures will continue to be incorporated into the project design, where feasible, as permitting coordination continues with the natural resource agencies.

3.1.3 Vegetation and Wildlife

3.1.3.1 Land Cover

Land cover within the CSVT LOD was previously updated, mapped, and field-verified in the spring/summer of 2014 and subsequently outlined in FEIS/ROD Reevaluation No. 2. No major changes were discovered, though certain land cover compartments have evolved over time, resulting in modifications to the overall impact numbers. Changes in land uses of particular concern are described in Section 3.1.1 (Wetlands) and Section 3.1.4 (Agriculture). In addition, the changes in impacts to forest land and old field areas have been assessed. The impact changes to these land cover compartments are generally related to modifications made to the LOD associated with the ash basin avoidance modification and the other design modifications outlined in Section 2.2.

There has been a 68.5-acre reduction in Old Field habitat impacts since the FEIS/ROD and a 66.9 acre increase in the Forested land impacts. The increase in Forested impacts and reduction in Old Field impacts are primarily associated with the ash basin avoidance modification. The ash basins are dominated with a mixture of Old Field and Shrub/Scrub habitat while the alignment modification impacted undeveloped Forested compartments to avoid the northern ash basin. Although this increase in Forested land impacts is fairly substantial, the ash basin avoidance alternatives analysis was performed in close coordination with the environmental agencies, and as documented in the SEA/FONSI, the Eastern Alternative was ultimately selected because it had less impacts to residences, farmlands, and wetlands, had less or similar noise impacts, and better met the traffic needs of the project, when compared to the other alternatives considered. Furthermore, the increase in Forested land impacts does not affect the clearances for potential protected species for the project, as described in the following section.

3.1.3.2 Endangered Species Act (Section 7 Consultation)

The Pennsylvania Department of Conservation and Natural Resources' (PA DCNR) Pennsylvania Natural Diversity Inventory (PNDI) Heritage Geographic Information System (HGIS) database was accessed to determine if the project area supports threatened or endangered species or their habitats. Through the development of the CSVT project, the United States Fish and Wildlife Service (USFWS) has identified concerns regarding potential impacts to Indiana Bats and Northern Long-Eared Bats. Following the January 2016 announcement of the final 4(d) rule related to the Northern Long-Eared Bat, FHWA and PennDOT consulted with the USFWS for the remaining construction sections of the CSVT project and subsequently implemented the National Programmatic Biological Opinion (BO) to address the potential concerns regarding the Northern Long-Eared Bat. In accordance with the National Programmatic BO, tree clearing can occur from November 1 to March 31, and limited tree clearing (10% of the project total) can occur from April 1 to May 31 and from August 1 to October 31. No tree clearing can occur from June 1 to July 31. Implementation of the National Programmatic BO concludes that the proposed CSVT project is likely to adversely affect Northern Long-Eared Bats but is not likely to jeopardize the continued existence of the species. The USFWS originally approved the use of the National Programmatic BO for the CSVT project overall in October 2016 and specifically approved its use for the Eastern Alternative within the Ash Basin Focus Area in February 2018.

In addition to the consultation regarding the Northern Long-eared Bat, in October 2016, the USFWS identified potential concerns regarding the Indiana Bat in the Southern Section. FHWA and PennDOT, in consultation with the USFWS, performed a mist net survey in the summer of 2017 to address potential Indiana Bat concerns. The mist net survey was completed in July and August 2017, and no state or federal threatened or endangered bats were captured, including Indiana Bats. A summary of the results of the mist net survey effort was forwarded to the USFWS in the fall of 2017, and a formal report was provided in January 2018 as part of the consultation efforts. Additionally, there is no critical bat habitat or hibernaculum within the CSVT project area. Based on the survey results, the USFWS concluded in February 2018 that the Southern Section may affect, but is not likely to adversely affect, the Indiana Bat.

3.1.4 Agriculture

Agricultural land use was reassessed throughout the Southern Section, and the Agricultural Security Area (ASA) parcel designations were updated. Generally speaking, the footprint of the project has decreased significantly since the FEIS/ROD due to the reduction of the proposed median width from 90 feet (FEIS/ROD impacts) to 60 feet (FEIS/ROD Reevaluation No.1 impacts) to 36 feet (current impacts) and the balancing of earthwork. The FEIS/ROD impact numbers also used a "buffer" extending from the proposed cut and fill areas since right-of-way limits were not yet defined. The right-of-way limits are now generally established, and the LOD is therefore better defined.

Based on the current design for the Southern Section, the impacts to lands in ASAs have decreased by 29.4 acres and the impacts to land identified as productive farmland have decreased by approximately 45.2 acres. The decrease in impacts to productive farmlands and ASAs from the FEIS/ROD is primarily associated with the design changes that are documented in FEIS/ROD Reevaluation No. 1. In addition, several of the impacted parcels near the southern termini of the project are no longer in the ASA program.

An Agricultural Land Condemnation Approval Board (ALCAB) hearing was held on March 31, 2005, and the adjudication was issued on April 22, 2005, approving the DAMA Preferred

Alternative in the Southern Section. Subsequent to the 2005 adjudication, the FHWA determined that the Simon P. App farm was not eligible for the NRHP under the new historic context outlined in the North and West Branch Susquehanna Diversified Farming Region. This finding changed the preferred alternative from the DAMA to the DAM Alternative (see discussion in Section 1.2). A second ALCAB hearing was held on May 4, 2006, and the adjudication was issued on May 8, 2006, approving the DAM Preferred Alternative in the Southern Section.

To address the design changes outlined in Section 2.2 that impact productive farming operations, a third ALCAB hearing was held on August 26, 2020. Specifically, the hearing addressed three focus areas within the Southern Section where the reconfiguration or realignment affected farming operations: the Mill/App Road Focus Area, the Acid-Bearing Rock Focus Area, and the Ash Basin Focus Area. (Note that agricultural impacts within the Ash Basin Focus Area were previously evaluated in the SEA/FONSI.) The adjudication was issued on September 21, 2020, and it approved the current design presented in this Reevaluation for each of those focus areas, which was identified as follows:

- Option 3-2 in the Mill/App Road Focus Area (decreased productive farmland impacts from 17.5 acres to 15.6 acres when compared to the previous ALCAB-approved design),
- ABR Design Refinement in the Acid-Bearing Rock Focus Area (increased productive farmland impacts from 26.7 acres to 31.3 acres when compared to the previous ALCAB-approved design), and
- Eastern Alternative in the Ash Basin Focus Area (decreased productive farmland impacts from 65.2 acres to 50.1 acres when compared to the previous ALCAB-approved design).

3.2 SOCIAL ENVIRONMENT

3.2.1 Noise

A full reassessment of noise impacts is being completed for the Southern Section as part of the final design phase of the project in compliance with 23 CFR 772 and PennDOT Publication 24, Project Level Highway Traffic Noise Handbook. The final report is anticipated to be submitted to FHWA in the fall of 2021, and public coordination for noise impacted communities is anticipated to occur in 2022.

3.2.2 Residential Displacements and Overall Right-of-Way Impacts

The number of required residential displacements in the Southern Section has increased by five since the FEIS/ROD. The current impacts in the Southern Section include 38 residential displacements, and the increase since the FEIS/ROD is primarily associated with the ash basin avoidance modification, as documented in the SEA/FONSI.

Compared to the project design presented in Reevaluation No. 4, the design modifications presented in this Reevaluation have increased the overall right-of-way impacts (including partial acquisitions) throughout the Southern Section, which is generally characterized by the increase in the overall LOD from 438.6 acres to 526.1 acres.

3.2.3 Major Utility Coordination

The current LOD incorporates the disturbance anticipated for the major utility relocations required for the Southern Section. Several PPL electric transmission line relocations are required, although the number of relocations has not been affected by the design changes presented in

this Reevaluation. Substitute right-of-way and/or new access easements are required primarily for the transmission lines between Attig Road and Park Road, near Stetler Avenue, and near Sunbury Road. Coordination with PPL is ongoing related to the transmission line relocations, which are anticipated to be completed in late 2021 or early 2022.

The proposed design of the Southern Section will directly impact a water supply well that is owned by Aqua Pennsylvania (Aqua) and located near Airport Road and Mill Road. The well was originally constructed in 2009 (after the preparation of the FEIS and the issuance of the ROD), and it is part of a three-well system that serves approximately 900 customers. Coordination with Aqua and PA DEP is ongoing related to the relocation of the impacted well, which is anticipated to be completed by late 2022. Coordination is also ongoing related to measures planned by PennDOT to minimize the potential for impacts to Aqua's groundwater supply during and after construction of the Southern Section, such as the installation of impervious linings in the drainage channels and sediment/stormwater basins within the wellhead protection zones.

The current LOD also incorporates the disturbance associated with the required relocation of UGI's Sunbury Pipeline natural gas line in the area of the CSVT/PA 61 Connector Interchange. The impact to the Sunbury Pipeline was previously documented in the SEA/FONSI, and its relocation was completed in late 2020.

3.2.4 Waste and Hazardous Materials

A preliminary waste site assessment report was prepared in February 2021 based on the updated LOD for the Southern Section. This report outlined several areas that would require additional investigation based on expansions of the LOD since Reevaluation No. 4. Three sites to be impacted during the first construction contract have been advanced to a Phase II & III Environmental Site Assessment, which is currently underway. The three sites include Waste Site (WS) #1 – Murray Motors, #47 Talen Property, and #56 vacant commercial lot. Phase II studies have been conducted on WS #56 and two metallic anomalies have been identified. PennDOT has developed special provisions for the contractor to address the removal and remediation needs at that location. Phase III soil testing efforts are underway for WS #1 and #47.

3.2.4.1 Acid-Bearing Rock (ABR)

The FEIS included discussions on the geological formations that would be impacted by the various project alternatives, but there was no assessment of potential ABR concerns. According to PA DEP, deposits of ABR with greater than 0.5% total sulfur are considered a potential source of acid runoff. In addition, PennDOT's ABR Policy (Publication 293) indicates that a negative net neutralization potential can indicate a potential acid-producing source. When excavated ABR materials come in contact with air and water, the resultant acid runoff can impact local surface waters and groundwater as well as the local soils, if not managed properly.

Geotechnical studies performed in 2016 revealed that there is ABR along the previously proposed CSVT alignment between Attig Road and Park Road. There is also a very small area of acid rock just south of Attig Road.

As discussed in Section 2.2, the proposed CSVT alignment has been modified to minimize the excavation of ABR. The horizontal alignment has been shifted up to 400 feet south of the original alignment, beginning approximately 1,500 feet south of Attig Road and ending near Park Road

and Fisher Road. This modification will reduce the excavation of ABR by up to 80%, from approximately 2 million cubic yards to approximately 0.4 million cubic yards.

Following additional geotechnical testing and in coordination with PA DEP, the project team has developed a Pyritic Material Handling Plan (PMHP) to address the remaining unavoidable excavation of ABR. The plan includes requirements for identifying and testing ABR during construction in addition to specifications for the management and disposal of ABR. To minimize the potential for acid runoff to occur during and after construction, stormwater will be diverted around ABR areas, excavated ABR will be managed on-site through treatment and encapsulation, and exposed rock surfaces will also be treated. The PMHP also includes provisions to monitor groundwater and surface waters within ¼ mile of ABR areas for potential impacts.

3.3 CULTURAL RESOURCES

3.3.1 Archaeological Resources

As final design has progressed, minor changes to the project footprint have occurred outside the original Area of Potential Effect (APE) covered in the 2010 Phase I/II Archaeological Report. Consistent with the terms of the project-specific Programmatic Agreement (PA), these areas have undergone additional Phase I archaeological testing and were included in two addendums to the Phase I/II Archaeological Report. The first addendum report was transmitted to the federally recognized Tribes and the Pennsylvania State Historic Preservation Officer (PA SHPO) on January 5, 2015. No new archaeological sites were identified within the modified APE. On January 27, 2015, the PA SHPO concurred with the finding of No Effect on archaeological resources.

The second addendum was prepared as a result of the additional final design adjustments in the Northern Section outlined in FEIS/ROD Reevaluation No. 3. No new archaeological sites were identified within the modified APE. This report was transmitted to the federally recognized Tribes and the PA SHPO on July 22, 2016, and the PA SHPO concurred with the finding of No Effect on archaeological resources on August 9, 2016.

Archaeological investigations have been completed for the areas of the Southern Section design modifications outlined in Section 2.2 (e.g., ash basin avoidance, ABR shift, etc.), and no new archaeological sites have been found. The field work for the modified APE was completed in summer 2021, and the third addendum to the Phase I/II Archaeological Report is currently being prepared in compliance with the PA.

Consistent with the PA, as final design and ultimately construction progresses in the Southern Section, additional report addendums may be necessary and will be addressed in subsequent FEIS/ROD reevaluations.

3.3.2 Historic Resources

Since the completion of FEIS/ROD Reevaluation No. 4, no new historic resources listed or eligible for listing on the NRHP have been identified in the project's APE. A Determination of Effect Report was prepared in June 2019 to cover the Southern Section design modifications outlined in Section 2.2. The report was posted to ProjectPATH on June 19, 2019, with a finding of No Adverse Effect, and the PA SHPO concurred with the finding on July 3, 2019.

3.3.3 Programmatic Agreement (PA)

The Second Amendment for the Section 106 PA was executed on December 22, 2015, to extend the agreement through the ongoing final design and construction phases, in accordance with the current anticipated project schedule. The current expiration date is December 22, 2025.

4.0 SECTION 4(f) EVALUATION

There has been no change to the status of Section 4(f) issues on this project.

5.0 MITIGATION UPDATE

A Mitigation Commitment Tracking spreadsheet was prepared as part of the original NEPA Mitigation Report (predates PennDOT's Environmental Commitment and Mitigation Tracking System [ECMTS] procedures as defined in Strike-Off Letter 432-12-06) for the project to continuously track the commitments made and included in the project's FEIS, ROD, permits, and other project authorizations. These documents include all commitments and mitigation required, including items from the NEPA environmental reviews, the Section 4(f) Evaluation, and the Section 404/Chapter 105 and NPDES permit processes. Major mitigation items completed since FEIS/ROD Reevaluation No. 4 are discussed below.

5.1 NATURAL RESOURCE MITIGATION

PennDOT has been providing regular post-construction monitoring for the Center Mitigation Site and the Vargo Mitigation Site. Specifics related to the mitigation requirements and monitoring are documented in the FEIS/ROD Reevaluation No. 2.

Related to wetland impacts for the Southern Section, coordination is ongoing with the USACE, PA DEP, and the United States Environmental Protection Agency (U.S. EPA) regarding the adequacy of compensatory wetland mitigation at the Center Mitigation Site to offset the project's impacts. PennDOT and the natural resource agencies are specifically evaluating options to address the lack of sufficient scrub-shrub and forested wetland area, but it is anticipated that the mitigation needs will ultimately be covered by the Center Mitigation Site, most likely through the debiting of additional emergent wetland areas.

Related to stream impacts, compensatory mitigation was previously completed at the Center Mitigation Site for the CSVT project overall, as part of the total ecosystem approach that was developed in close coordination with the natural resource agencies (as originally documented in the FEIS). However, PA DEP is currently developing new regulations that may establish quantitative stream mitigation requirements based on functional assessments of the impacted and improved watercourses. PennDOT therefore coordinated with PA DEP and PFBC following the completion of the 2020 stream assessments (described in Section 3.1.2) and determined that such new regulations would likely require additional mitigation to be completed in order to allow PA DEP to issue a Chapter 105 permit for the Southern Section. As a result, PennDOT has decided to provide additional mitigation to avoid the potential project delay that would likely occur if such new regulations were enacted prior to the issuance of the Chapter 105 permit. As final design for the Southern Section has progressed, PennDOT has further coordinated with PA DEP and PFBC to evaluate options for this additional mitigation. With the support of PA DEP and PFBC, PennDOT is pursuing the option of contributing state funding to the Union County Conservation District (UCCD) to complete improvements to streams in watersheds surrounding the project, which are anticipated to provide cost-effective, high-value additional mitigation close to the project impact area.

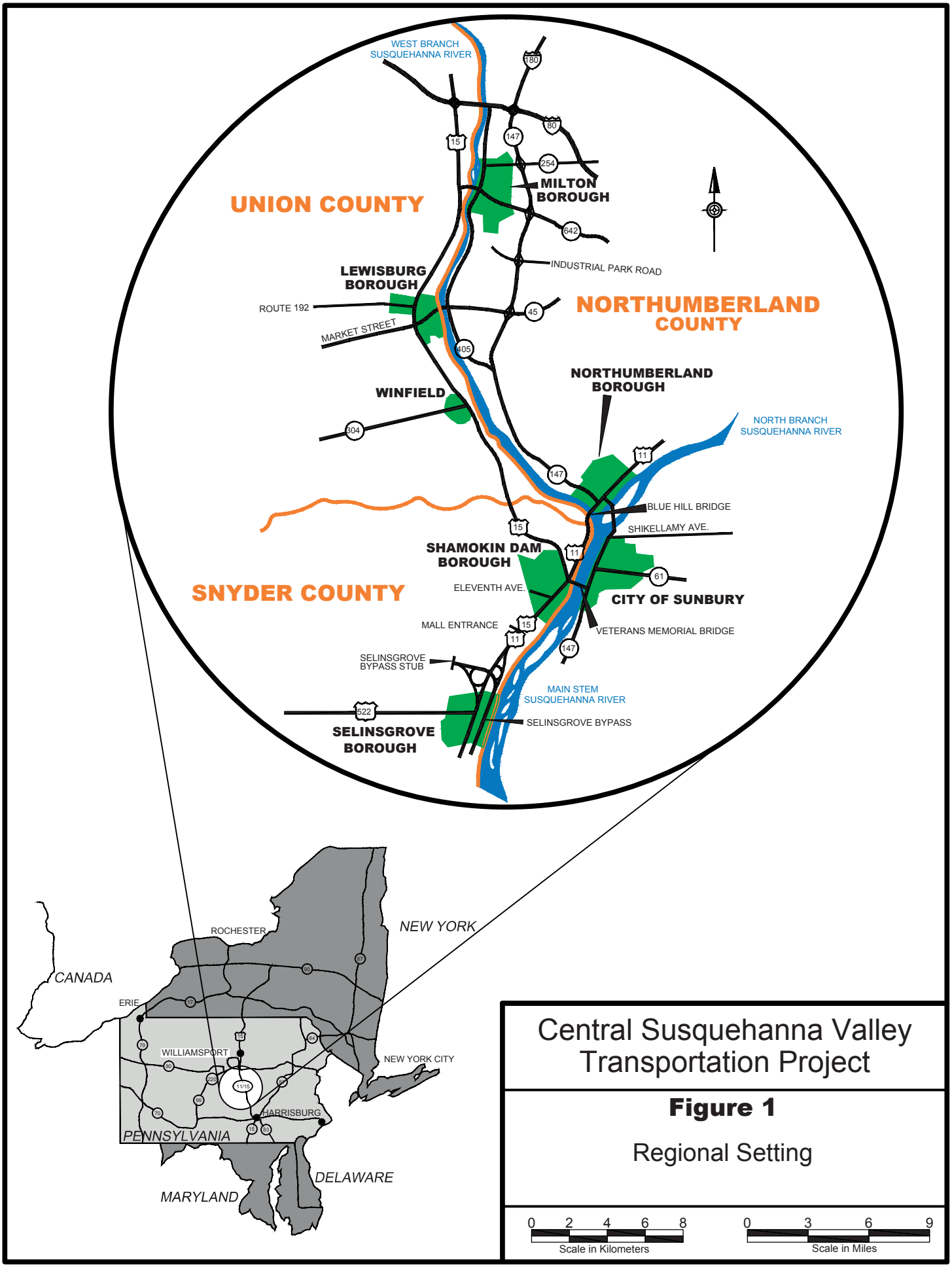
6.0 CONCLUSION

Based on the information presented in this FEIS/ROD Reevaluation No. 5, it has been determined that the design changes in the Southern Section of the CSVT project do not result in any new or additional adverse impacts when compared with the data presented in the FEIS for the Selected Alternative that would rise to the level of significance; therefore, a supplemental NEPA document is not warranted at this time.

The updated design for the Southern Section of the CSVT project has resulted in minor increases in forested habitat impacts and residential displacements and a reduction in impacts to agriculture, wetlands, and old field habitats. Given the context of the project area and resources as well the fact that the current scope of the project and the magnitude of the impacts have not changed meaningfully with respect to the preliminary design of the Selected Alternative, a supplemental NEPA document is not warranted. General public involvement activities (website updates, meetings with public officials, etc.) and agency coordination have continued.

The environmental impact changes discussed herein have also been communicated to public officials, with whom the project team meets on a frequent basis. As all sections of the project proceed through final design, right-of-way acquisitions, utility relocation, and construction, additional reevaluations will be undertaken. The need for additional written reevaluations will be determined as appropriate. This documentation of NEPA reevaluation is being undertaken consistent with 23 CFR 771.129(c).

7.0 PROJECT MAPPING



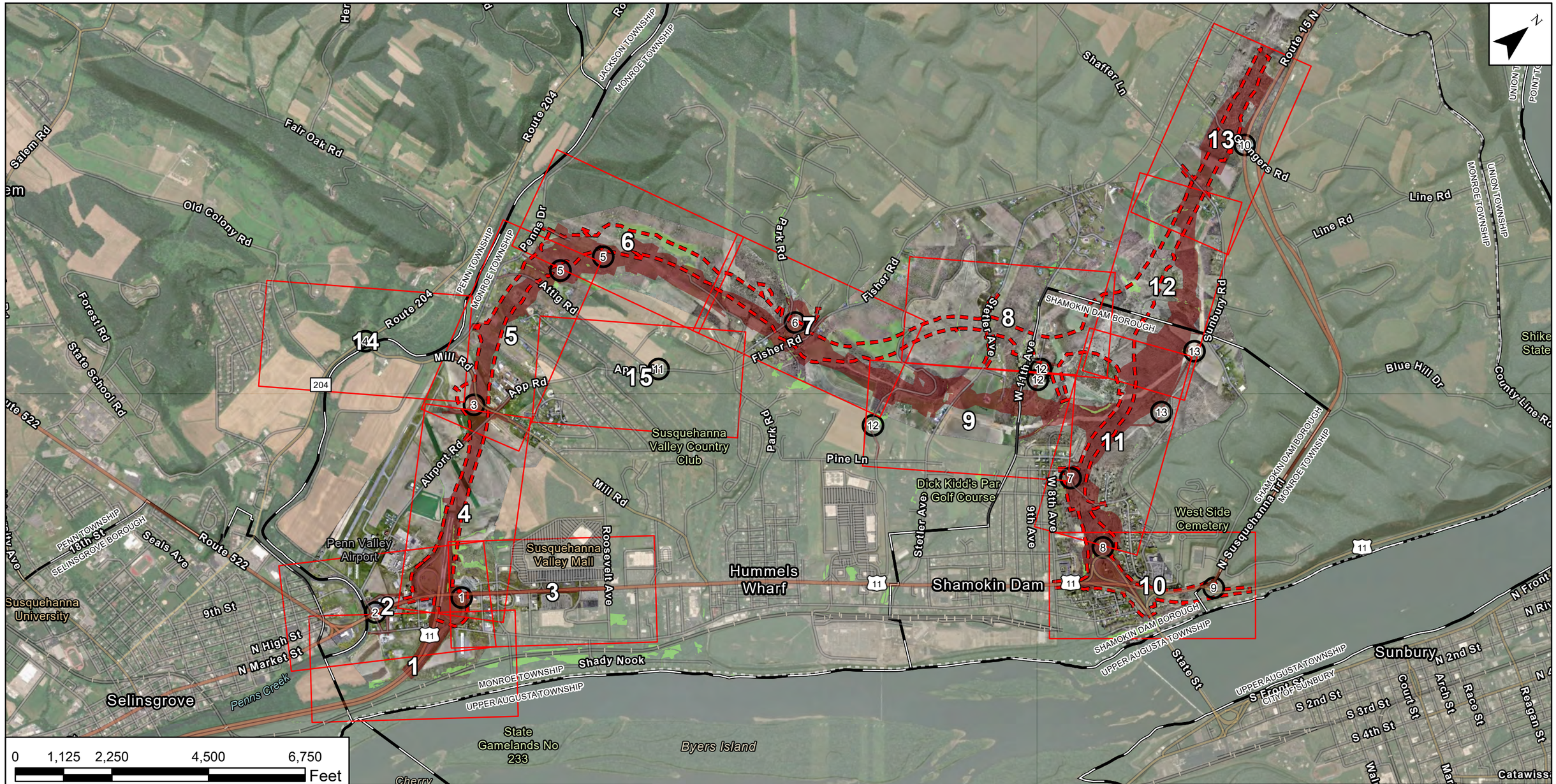
Central Susquehanna Valley Transportation Project

Figure 1

Regional Setting

0 2 4 6 8
Scale in Kilometers

0 3 6 9
Scale in Miles



Legend

- Index
- Reevaluation No. 4 LOD (2018)
- Current Design LOD (2021)
- Municipal Boundary
- Wetlands
- Design Change Location

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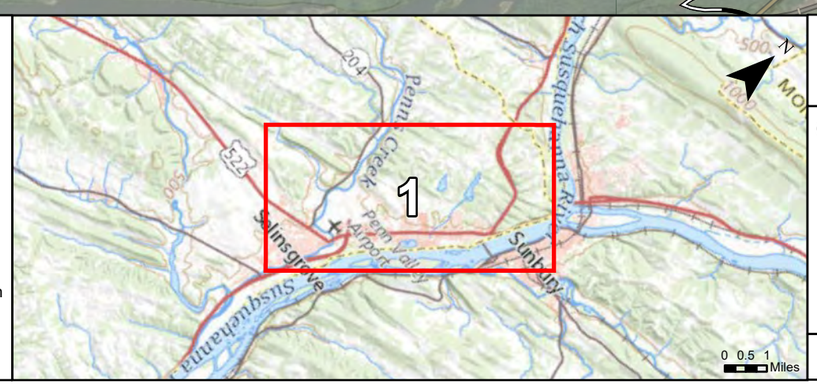

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Figure 2 - Index Sheet

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 2,250 Feet

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Legend

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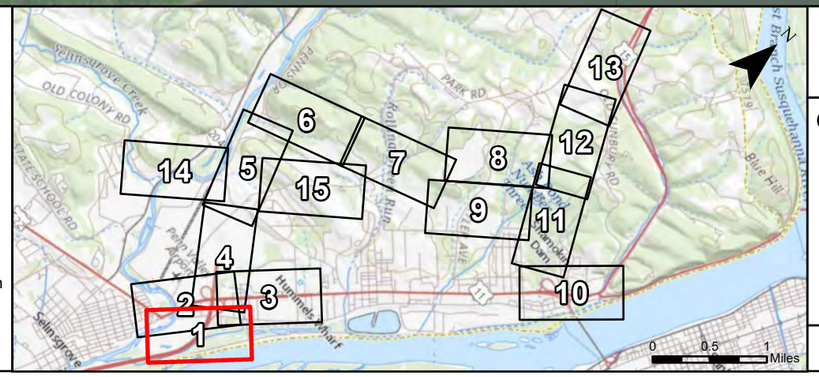

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Figure 2 - Sheet 1 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 300 Feet

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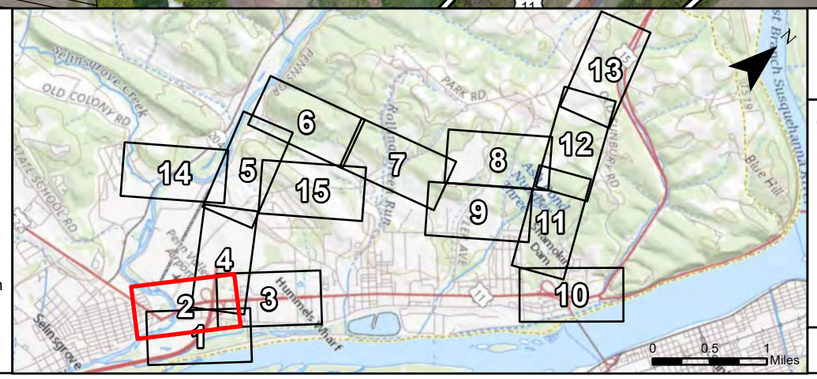

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Figure 2 - Sheet 2 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

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SNYDER COUNTY, PENNSYLVANIA

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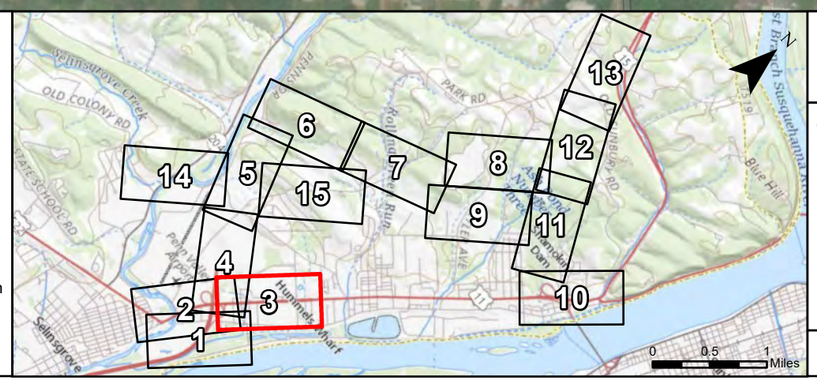

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Figure 2 - Sheet 3 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 300 Feet

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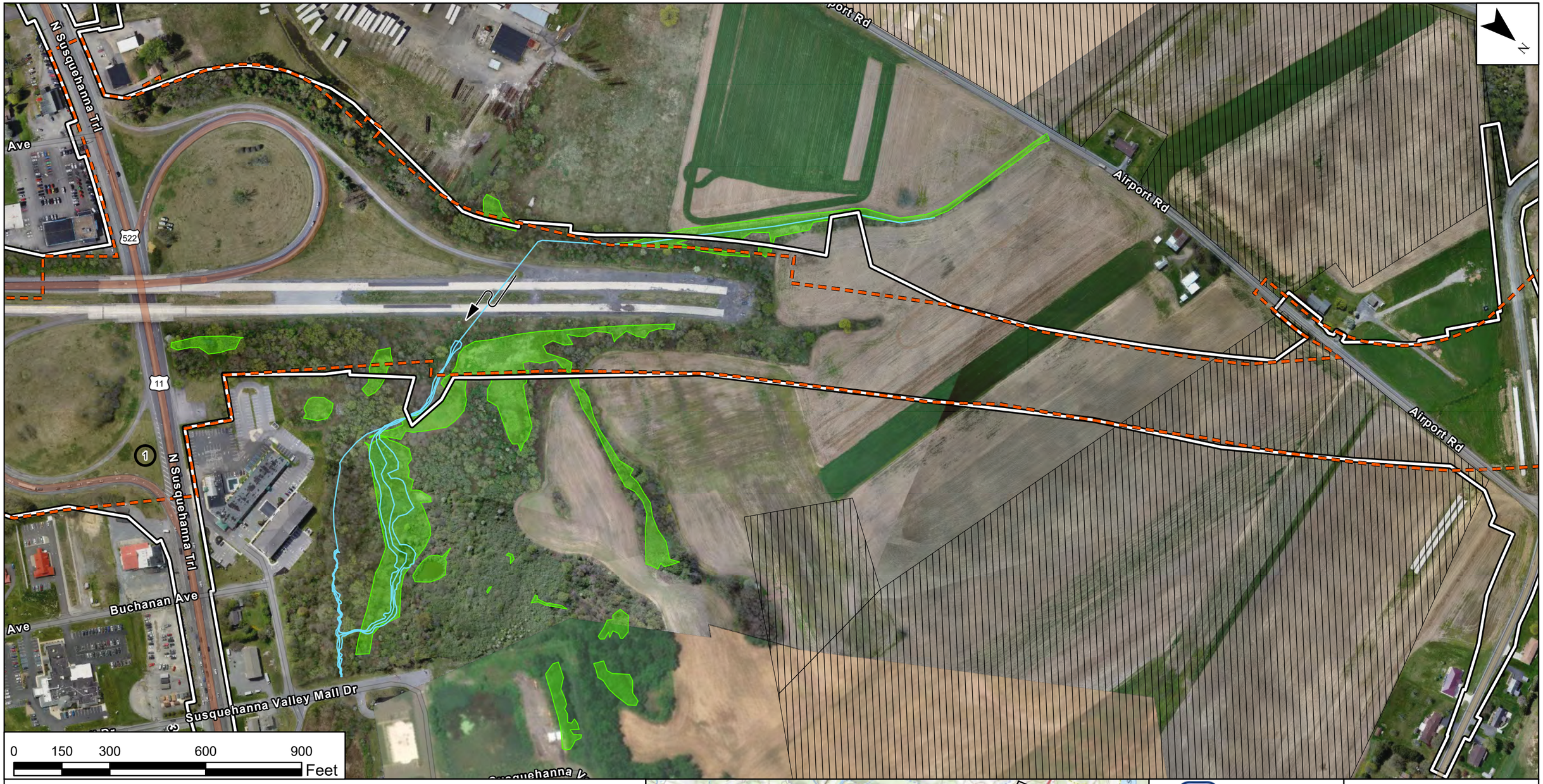

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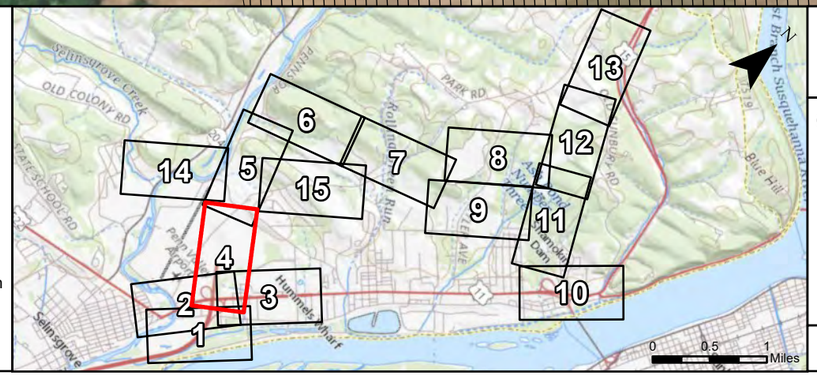

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Figure 2 - Sheet 4 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 300 Feet

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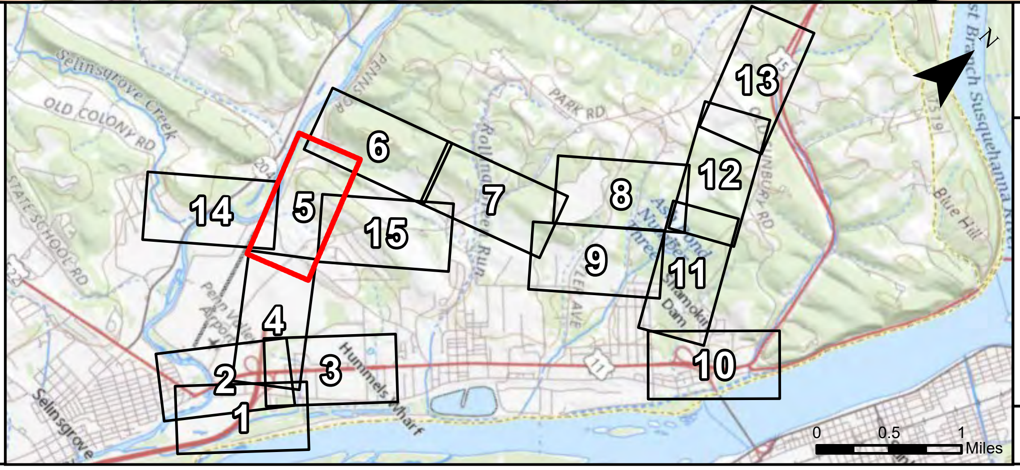

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Figure 2 - Sheet 5 of 15

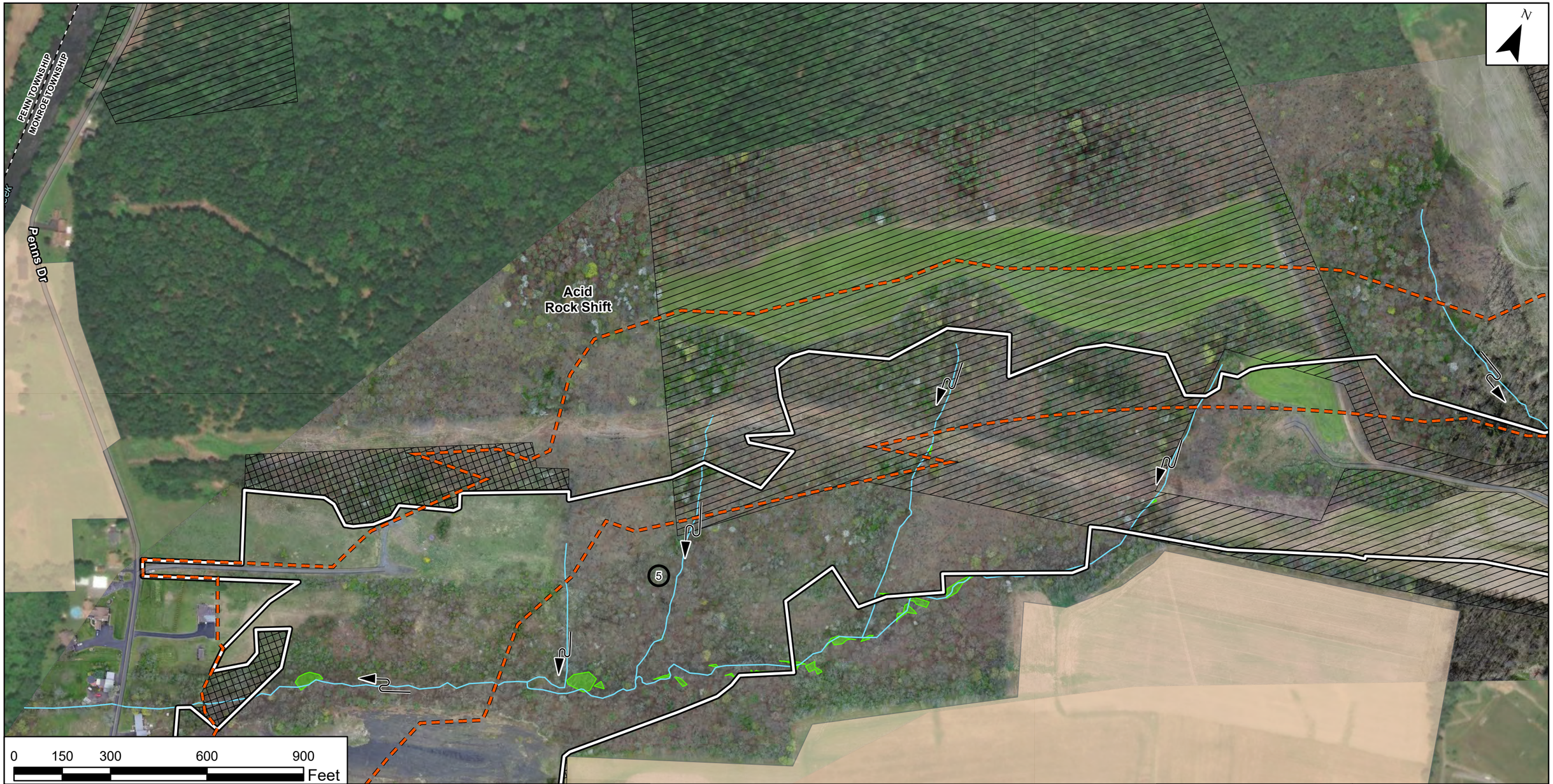
CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A

1 inch = 300 Feet



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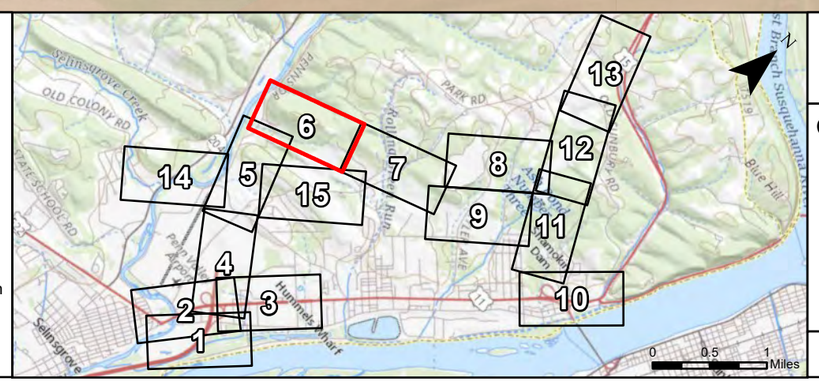

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Figure 2 - Sheet 6 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

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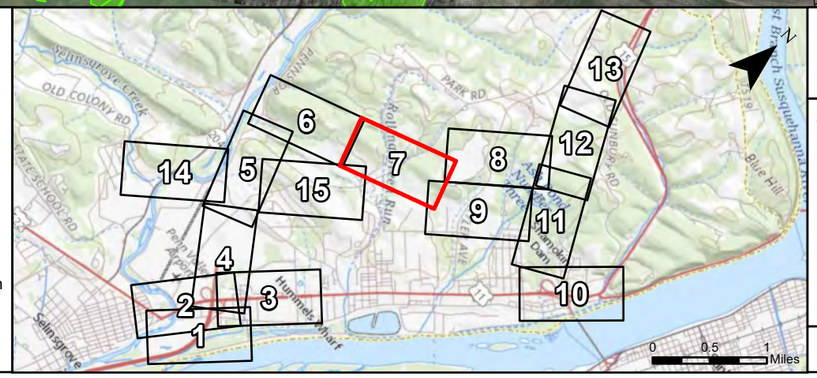

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Figure 2 - Sheet 7 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A

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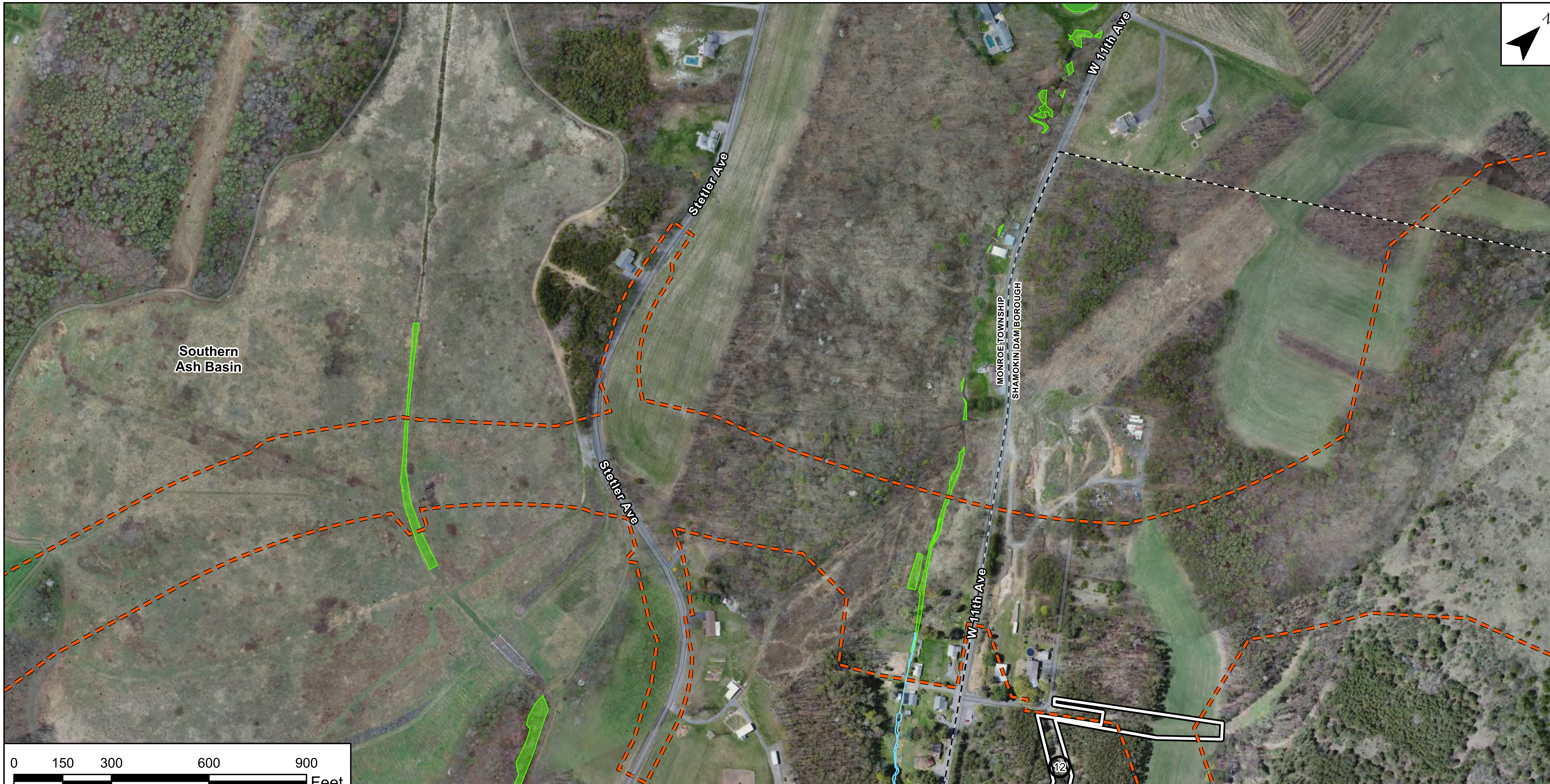

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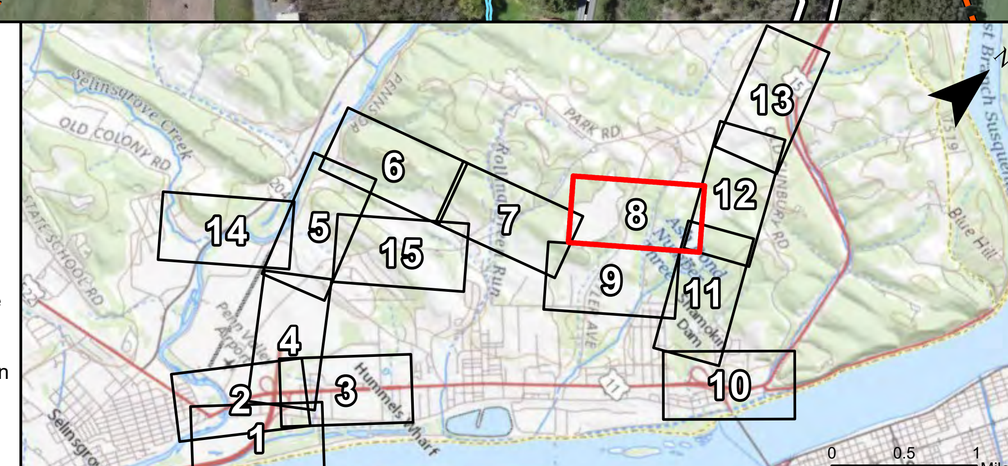

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August 2021

Figure 2 - Sheet 8 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

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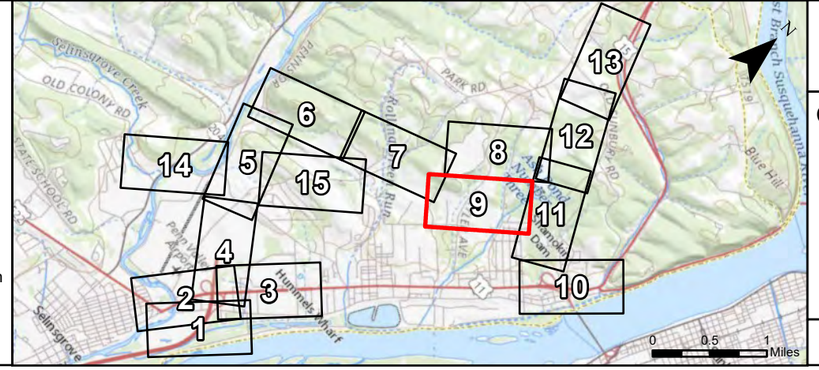

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Figure 2 - Sheet 9 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A

1 inch = 300 Feet

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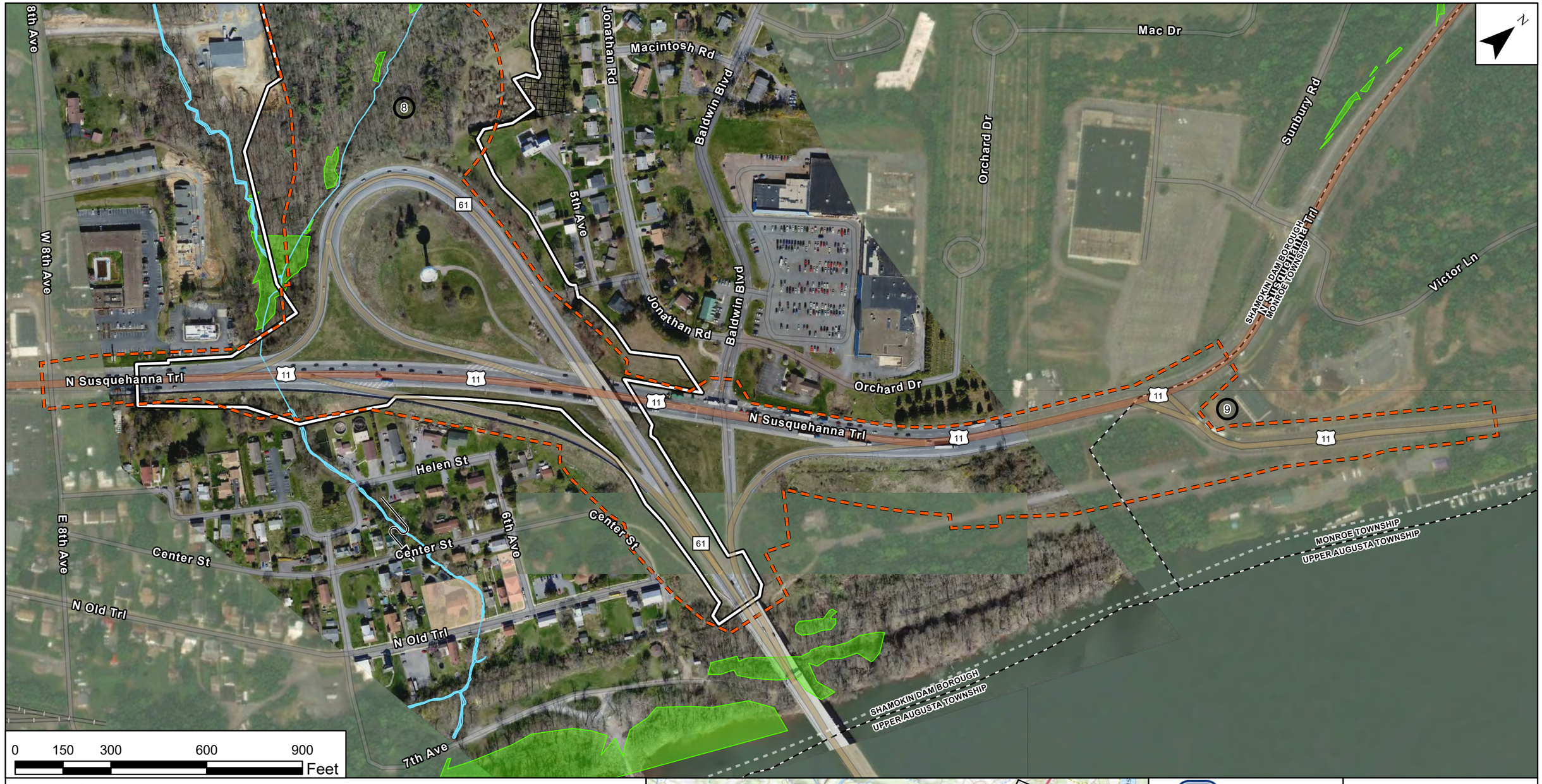

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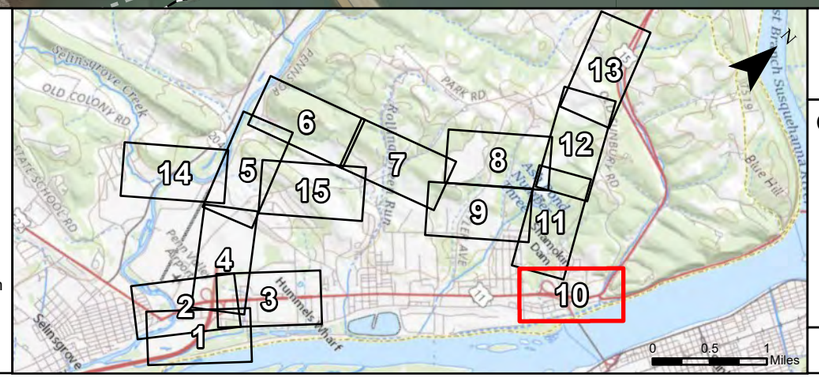

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Figure 2 - Sheet 10 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

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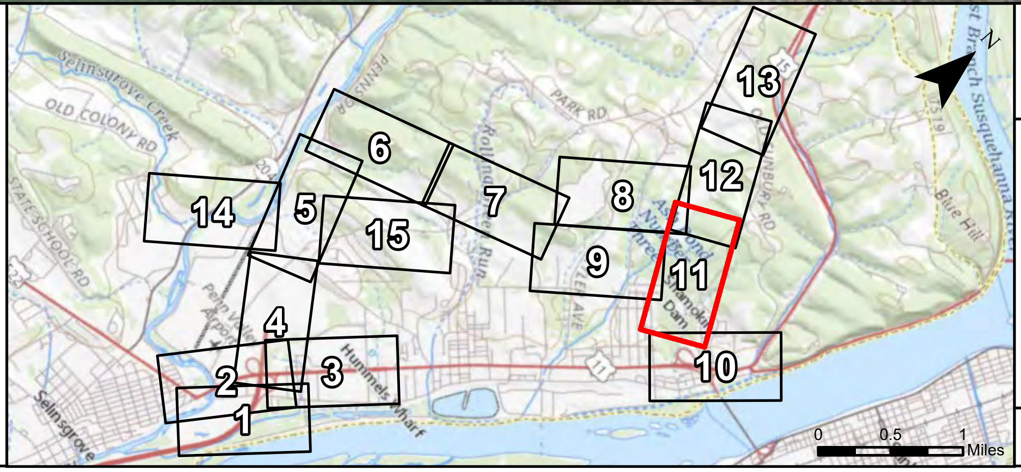

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August 2021

Figure 2 - Sheet 11 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

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Northern
Ash Basin

SHAMOKIN DAM BOROUGH
MONROE TOWNSHIP

Sunbury Rd

Sunbury Rd

N

0 150 300 600 900
Feet

Legend

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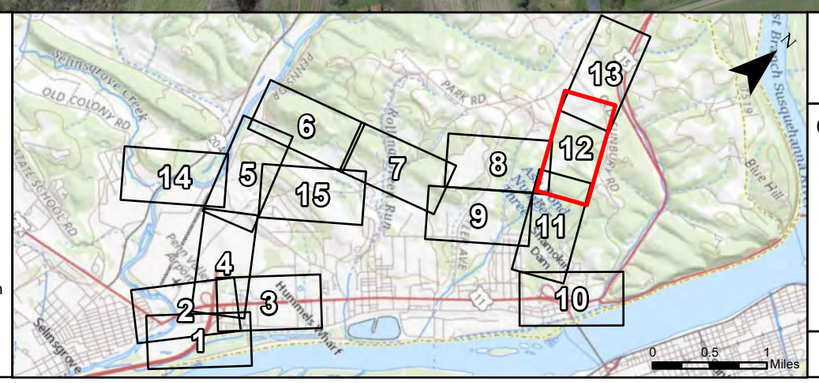

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CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

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Sunbury Rd
Sunbury Rd
Sunbury Rd
Grangers Rd
Grangers Rd
Mark Dr
Section 2
Under Construction
Route 15 S
Route 15 N
Route 15 N
15
15
15
10
0 150 300 600 900
Feet

Legend

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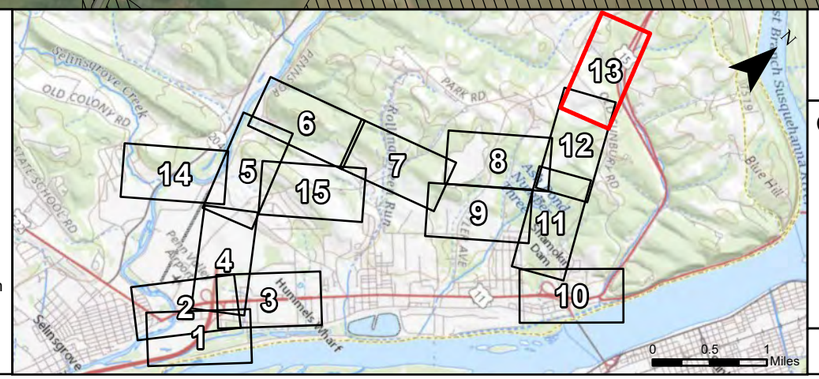
13. UGI Sunbury Pipeline Relocation



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August 2021

Figure 2 - Sheet 13 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 300 Feet

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Legend

- Design Change Location
- Flow Direction
- Municipal Boundary
- Reevaluation No. 4 LOD (2018)
- Current Design LOD (2021)
- Agricultural Security Area
- Streams
- Historic Resources
- Wetlands

Design Change Location

1. US 522/US 11/15 – CSVT Interchange near Selinsgrove
2. US 522/Airport Road Intersection
3. Mill Road/App Road/Airport Road Intersection
4. PA 204/Mill Road Intersection
5. Acid-Bearing Rock Shift
6. CSVT/Park Road and Fisher Road Crossing
7. Cortland Drive/Chestnut Street Connector
8. US 11/15 – CSVT/PA 61 Connector Interchange in Shamokin Dam
9. US 11/15 Split
10. US 15 Southbound/Grangers Road Intersection
11. App Road/Attig Road Temporary Turnaround
12. Talen Ash Dam Access
13. UGI Sunbury Pipeline Relocation

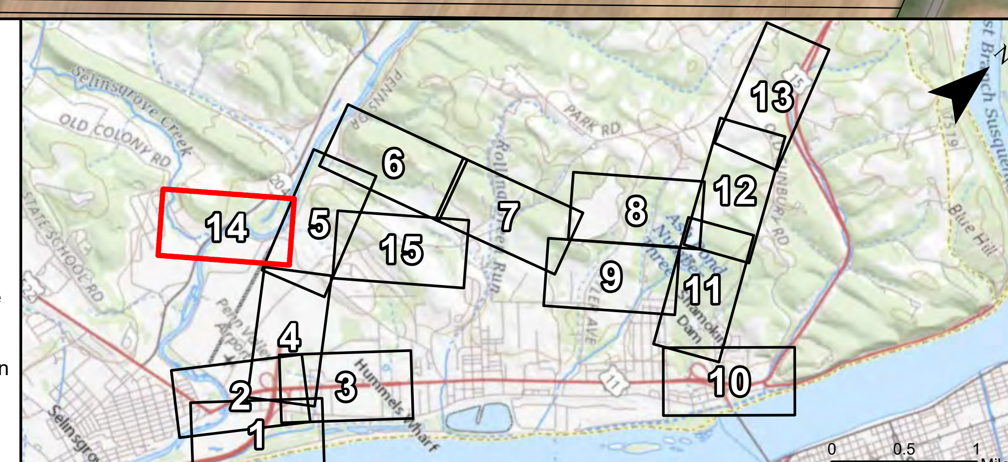

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Figure 2 - Sheet 14 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION
SOUTHERN SECTION

LOD COMPARISONS

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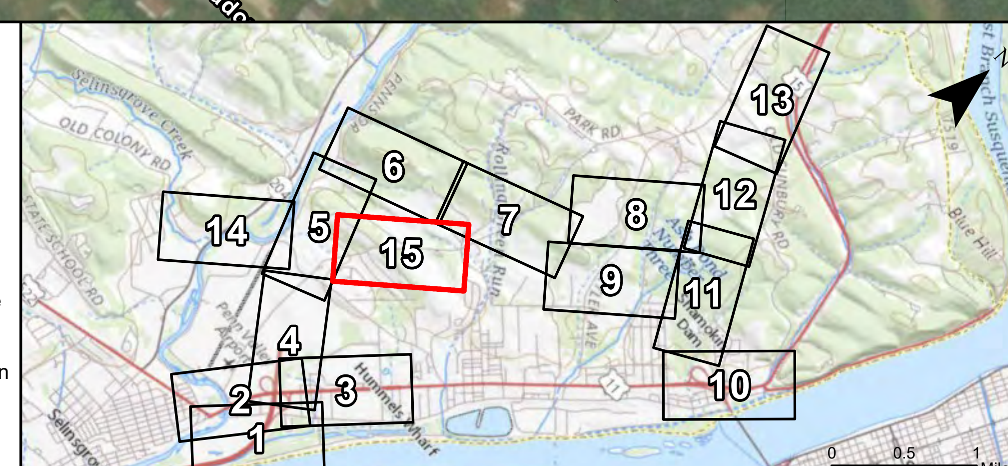

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Figure 2 - Sheet 15 of 15

CENTRAL SUSQUEHANNA VALLEY TRANSPORTATION SOUTHERN SECTION

LOD COMPARISONS

SNYDER COUNTY, PENNSYLVANIA

Job No. JN957129A | 1 inch = 300 Feet