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Central Susquehanna Valley Transportation Project

SPECIAL IMPACT STUDY

NOVEMBER 2021

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Central Susquehanna Valley Transportation Project

Special Impact Study

Prepared for:

Lycoming County Planning and Community Development

330 Pine Street

Williamsport, PA 17701

570-320-2130

lyco.org

By:

Michael Baker International

4431 North Front Street

Harrisburg, PA 17110

717-221-2000

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STEERING COMMITTEE

Teajay Aikey
Central PA Chamber

Robert Brown
Montoursville Borough

Steve Culver
Muncy Creek Township

Ed Feigles
Muncy Borough

Jason Fink
Williamsport/Lycoming Chamber of Commerce

Bob Garrett
Greater Susquehanna Valley Chamber

Michael Goetz
Brady Township Planning Commission

Jay Jarrett
Watsontown Borough

Chris Logue
Williamsport Municipal Airport Authority

Commissioner Scott Metzger
Lycoming County

Commissioner Rick Mirabito
Lycoming County

Kristen Moyer
Delaware Township Planning Commission

Jess Novinger
Milton Borough

Jerry Otterbein
Warrior Run Community Corporation

Al Reeves
Warrior Run Community Corporation

Joseph Reighard
Lycoming County Planning Commission

Tom Schaech
Muncy Township

Justin Skavery
Northumberland County

Marc Sortman
Loyalsock Township

Art Thomas
Meck-Tech, Inc.

Kim Wheeler
SEDA-COG

Todd Wright
River Valley Transit

MANAGEMENT TEAM

Lycoming County

Austin Daily
Mark Haas
Tiffany Krajewski
John Lavelle
Mark Murawski
Scott Williams
Salvatore Vitko

SEDA-Council of Governments (SEDA-COG)

James Saylor
Steve Herman

PennDOT Engineering District 3-0

Chris King
Jonathan Ranck

PennDOT Central Office Program Center

Carey Mullins

Consultant Team – Michael Baker International

Casey Bottiger
Brian Funkhouser, AICP – Project Manager
Morgan Ruziecki
Dan Szekeres
Todd Trautz, PE, PTOE
Tracey Vernon, AICP, PP – Vernon Land Use, LLC

Central Susquehanna Valley Transportation (CSVT) Project Timeline

1970s – Original Shamokin Dam bypass studies performed

1994 – CSVT project studies re-initiated

2003 – Final Environmental Impact Statement (FEIS) approved

2006 – Northern Section final design initiated

2008 – Project placed on hold (due to lack of funding)

2013 – Act 89 passed (funding identified) and project reactivated

2015 – Southern Section final design initiated

2016 – Start of construction for the Northern Section

2021 – CSVT Special Impact Study completed

2022 – Anticipated start of construction for the Southern Section

2022 – Anticipated opening of Northern Section

2027 – Anticipated opening of Southern Section

Table of Contents

Executive Summary

[PLACEHOLDER]

Executive summary will be completed upon finalization of the report and content will include:

- Summary table/graphic of project descriptions and conclusions
- Project Study Area
- Project Goals
- Key Tasks
- Land Use Forecasts
- Summary of Impacts of CSVT
- Recommendations
- Next Steps

Study Purpose and Methodology

WHAT IS THE CSVT?

The Central Susquehanna Valley Transportation (CSVT) Project involves the phased construction of approximately 12.4 miles of new four-lane, limited access highway from the northern terminus of the Selinsgrove Bypass (US 11/15) in Monroe Township, Snyder County to PA 147 just south of the PA 45 interchange near Montandon, Northumberland County. This major new highway project includes a connector to PA 61 in the greater Shamokin Dam area and a new bridge crossing over the West Branch Susquehanna River extending from Union Township, Union County to Point Township, Northumberland County. It is one of the largest highway construction projects currently underway anywhere in Pennsylvania. Once fully constructed, the CSVT Project is anticipated to impact traffic patterns that may have significant impacts on communities throughout the study area, especially along the I-180 and US 15 corridors. (More information about the CSVT Project, including plans and status is accessible at www.csvt.com.)

As of Summer 2021, construction on the CSVT's Northern Section is approximately 85 percent completed and is anticipated to open to traffic in 2022. The southern section, which includes the new PA 61 Connector in Shamokin Dam, is expected to start construction in 2022 and is anticipated to be open to traffic in 2027. The new limited access facility is predicted to impact traffic in communities to the north, which garnered interest in completing a study to understand these impacts and identify strategies to proactively monitor and address them.

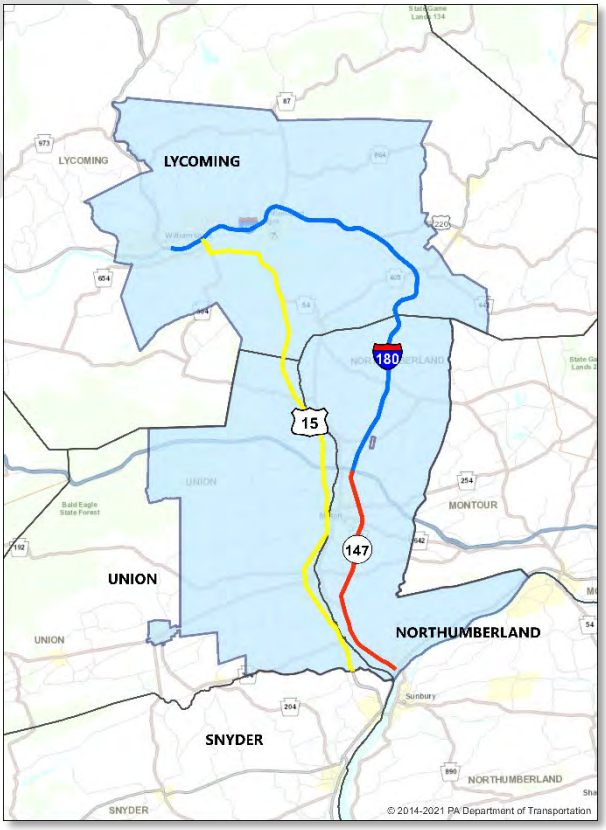
PROJECT OVERVIEW

In summer 2019, the Williamsport Metropolitan Planning Organization (MPO) collaborated with the Susquehanna Economic Development Area Council of Government (SEDA-COG MPO) and the Pennsylvania Department of Transportation (PennDOT) in initiating a study of the anticipated impacts of the forthcoming Central Susquehanna Valley Transportation Project, or CSVT.

The CSVT is a major public works project valued at over $800 million that will fundamentally change the nature of trip distributions and traffic patterns through the Central Susquehanna Valley. The study agencies have a shared concern regarding how the new roadway will affect not only traffic and transportation, but also future land use and development. With the Northern Section of the CSVT Project slated to open in 2022, time was of the essence in performing an examination of anticipated impacts, and how the region could plan collectively to mitigate those impacts.

The study's geographic area of concern was centered on the corridors of Interstate 180 (shown in blue) and US 15 (shown in

Figure 1: CSVT Study Area



yellow), from their interchange in Williamsport, to a point in Monroe Township, Snyder County, where the new CSVT alignment will join existing US 11/15 (**Figure 1**). Other surrounding roadways were also of interest during the study process, including US 220, US 522, and PA 45 through Lewisburg Borough. The desired result of the study was to create an action plan that will ensure orderly land development patterns, smart growth, and a safe, efficient multi-modal transportation system which is responsive to increased and redistributed traffic demand resulting from the project's completion. In pursuing a more detailed examination and analysis of anticipated CSVT impacts, the MPOs and PennDOT have exceeded the scope of the required Final Environmental Impact Statement and its subsequent reevaluations.

STUDY PROCESS AND TASKS

The CSVT Project Special Impact Study was led by a Management Team composed of representatives from the MPOs and PennDOT (Engineering District 3-0 and Central Office). A consultant was hired by the MPOs to assist in data collection, analysis, and report development. The Management Team met on a bi-weekly basis throughout the project's duration to review draft content and provide overall direction. The study also was supported by a 22-member Steering Committee that met four times over the course of the project to guide the study process and represent local perspectives. A listing of all stakeholder members and organizations represented is provided in the Acknowledgements.

Figure 2: Study Tasks

A summary of the key study tasks is shown in **Figure 2**. An assessment of existing conditions within the study area included an evaluation of travel demand, traffic congestion and highway safety along the US 15 and PA 147 / I-180 corridors.

Land use was identified as an important focus area. As a result, this study included extensive outreach to local communities and planning partners to develop a forecast land use vision of population and employment growth in the study area. The land use vision helped to support the evaluation of transportation and land use strategies.

To translate the land use vision and CSVT construction into traffic projections, the PennDOT statewide travel demand model was used to project traffic volume growth along key corridors in the study area. The modeling provided insights on potential impacts of regional traffic diversions caused by the fully built CSVT Project, rather than the opening of the individual northern and southern sections. In addition, a more detailed traffic safety assessment was conducted along the PA 147 and I-180 corridor examining existing and future safety concerns at key interchanges.

Using the above information and additional outreach to local communities and stakeholders, a comprehensive list of transportation and land use strategies were assembled to address CSVT Project impacts and opportunities. Strategies were defined through project descriptions, potential implementation partners and prioritized at a planning level. Each of the study recommendations were vetted with implementing agencies.

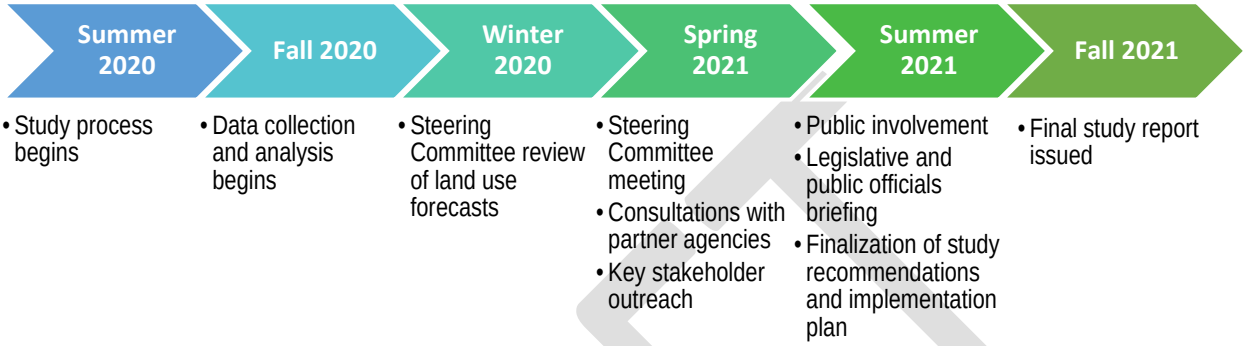
A public officials briefing and public open house were conducted to receive comments on the draft study recommendations. The final report was presented to the Williamsport MPO as the contracting agency during its November 2021 meeting. The study process resulted in an action plan that will guide municipal officials in orderly land development patterns, smart growth, and a safe,

efficient multimodal transportation system which is responsive to any changes in traffic patterns resulting from completion of the CSVT project.

STUDY SCHEDULE

The study process followed a 12-month schedule, with major milestones as shown in **Figure 3**.

Figure 3: Study Schedule



The Need for CSVT

North-south mobility through Pennsylvania's Central Susquehanna Valley is primarily provided by a number of arterials and Interstates, including US 15, PA 147, and Interstate 180. Interstate 180 between Williamsport and Interstate 80 was constructed in a phased approach from 1969 through 1981, with the fully-constructed highway opening to traffic in 1982. The highway did not receive Interstate designation until 1983. US 15 through the study area runs parallel to the western side of the West Branch Susquehanna River and is included on the Federally-designated Strategic Highway Network (STRAHNET). This network includes long-distance highways important to the United States' strategic defense and provides access, continuity, and emergency capabilities for defense purposes.

Plans to complete a limited access corridor from Interstate 180's junction with Interstate 80 south to Shamokin Dam in Snyder County have been in planning stages for many years. At the turn of the century, the project was cut from the state's program as it was being right-sized. As time has gone by, the corridor has continued to develop, and in Pennsylvania's most recent long-range transportation plan, areas surrounding Northumberland Borough were identified as one of the top truck bottlenecks in the state. As construction on the CSVT Project is now underway, the need for a planning study regarding CSVT's aftermath has been well documented, as the need has been well recognized and supported in several planning processes:

The timing of the CSVT Project Special Impact Study and its outcomes is optimal in directing future growth and addressing potential impacts to the region's transportation system.

- Muncy Area Corridor Access Management Plan (2015)
- Muncy-Montoursville Multi-Municipal Comprehensive Plan (2017);
- Muncy Creek Multi-Municipal Comprehensive Plan (2017);
- US 15 South Multi-Municipal Comprehensive Plan (2017);
- Lycoming County Comprehensive Plan Update (2018); and,
- Williamsport Area Transportation Study (WATS) Long Range Transportation Plan Update (2018).

THE NEED FOR PLANNING

Since the regional traffic pattern shifts resulting from the CSVT Project are not expected to start occurring until 2022 when the northern section of the project is completed, timing of this study and its outcomes is optimal in directing future growth and addressing potential impacts on the region's transportation system. In addition to improving traffic safety, the CSVT project is expected to separate truck traffic and through traffic from local traffic, as well as reduce congestion and accommodate growth. Given the magnitude of the CSVT Project and its anticipated impacts on trip distribution, highway safety, and land use, the MPOs within the study area administered this study to proactively prepare for the future.

Understanding Existing Conditions

TRAFFIC DEMAND

The US 15 and PA 147/I-180 corridors carry the highest north-south traffic volumes in the study area. **Table 1** provides an overview how Annual Average Daily Traffic Volume (AADT) varies within each corridor. The data illustrates that traffic volumes are consistent between the two corridors with higher volumes near town and urban centers. In Shamokin Dam, US 15 carries over 40,000 AADT, the section of highest traffic demand in the study area as it provides access to US 11, PA 61, and shopping and service destinations.

Table 1: 2020 Daily Traffic Volumes on US 15 and PA 147 / I-180 Corridor

US-15		
Section	**AADT**	**Truck %**
South of Selinsgrove	15,201	21%
Shamokin Dam (before 61)	40,543	14%
Shamokin Dam (north of 11)	19,642	17%
In Lewisburg	29,861	9%
South of I-80	19,222	14%
North of I-80	16,617	13%
North of PA 54	16,510	11%
South Williamsport	22,397	7%
Market Street Bridge	24,790	6%

PA 147 / I-180		
Section	**AADT**	**Truck %**
Northumberland	16,349	16%
North of Northumberland	11,313	12%
North of PA 45	12,138	21%
North of PA 642	15,154	22%
South of I-80	9,723	27%
North of I-80	17,435	21%
North of PA 54	17,804	22%
North of 405 in Muncy	19,064	18%
Williamsport - Montoursville	33,391	10%

** Source: PennDOT (https://gis.penndot.gov/tire)*

Several PennDOT continuous traffic count stations are located along US 15 and I-180 as illustrated in **Figure 4**. These traffic counters provide insights into recent traffic volume trends and will be an important data source to monitor the future impacts of regional land use growth and the anticipated impacts of the CSVT Project. Although overall traffic volumes have been relatively stable since 2015, the US 15 corridor has seen nearly a 30 percent growth in truck volume from 2015-2019. In comparison, Pennsylvania's statewide truck vehicle miles of travel (VMT) has grown by just over 5 percent over the same time period according to PennDOT's Highway Statistics. The traffic volumes in 2020 and 2021 should be assessed carefully as they have been impacted by the effects of the COVID-19 pandemic.

Figure 4: Summary of PennDOT Continuous Count Station Data in Project Study Area

I-180 Average Daily Annual Traffic (AADT)

Year	Avg. Volume	Avg. Truck Volume	Truck %
2021*	13,786	3,460	25.1
2020*	13,561	3,370	24.9
2019	15,241	3,218	21.1
2018	15,024	3,049	20.3

US-15 Average Daily Annual Traffic (AADT)

Year	Avg. Volume		Avg. Truck Volume	Truck %
2021*	19,033		2,781	14.6
2020*	18,379			
2019	23,758		3,487	14.7
2018	23,067		3,263	14.1
2017	21,200		2,181	10.3
2016	20,503		1,595	7.8
2015	20,803		1,634	7.9

3.5% Annual Growth

28% Annual Growth

** Traffic volume years may have been influenced by COVID*

The completion of the CSVT Project is expected to have some impact on traffic demand on each of these corridors. These impacts are assessed in other sections of this report using available travel modeling tools. To supplement those tools and to provide better insights into understanding the origins and destinations of travelers on US 15, cellular and GPS data from StreetLight, Inc. was purchased and reviewed for this study.

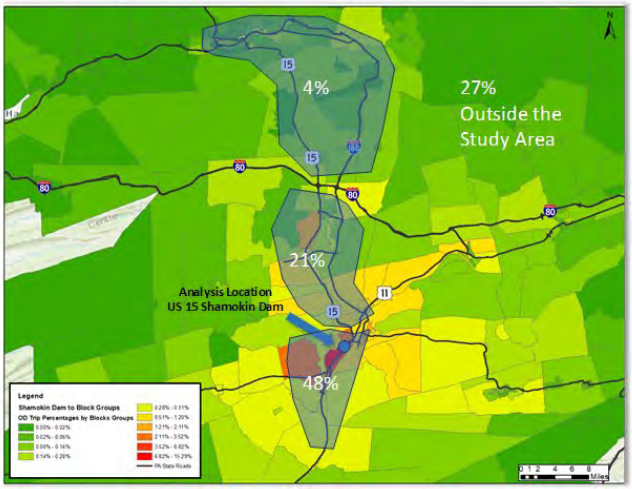
An assessment of trip ends for travelers using US 15 in Shamokin Dam was conducted and is summarized in **Figure 5**. This location was chosen for the analysis as it will be near the new CSVT interchange with US 15. The data shows that:

- 48 percent of the traffic on US 15 in Shamokin Dam has a local (to Shamokin Dam) origin or destination. Those travelers are expected to continue using US 15 rather than the CSVT Project once completed. For trucks, this percentage is much lower (e.g., nearly 12%).
- 27 percent of the passenger cars and 69 percent of the trucks on US 15 in Shamokin Dam have an origin/destination outside the study area. As expected, there is a higher percentage of longer distance travel for trucks.

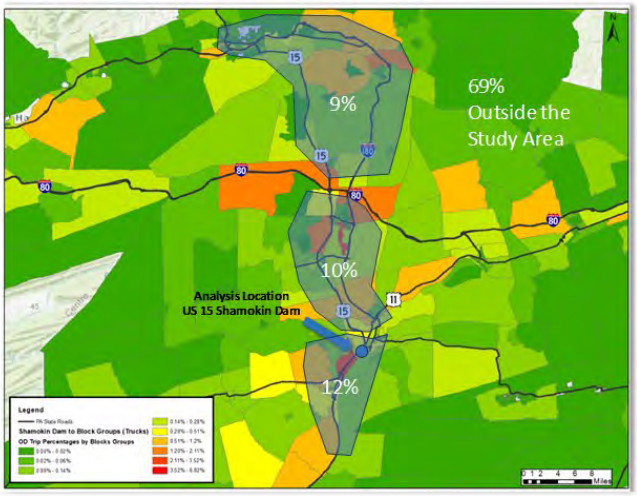
Figure 5: US 15 Origins and Destinations Assessment

Vehicle Type	Trip Origins or Destinations for Travelers on US 15 in Shamokin Dam		
	Local to Shamokin Dam	Other Areas Along US 15 / I-180 Corridor	Outside Study Area
Passenger Cars	48%	25%	27%
Trucks	12%	19%	69%

Percentage of Trip Ends - Passenger Cars



Percentage of Trip Ends - Commercial Trucks



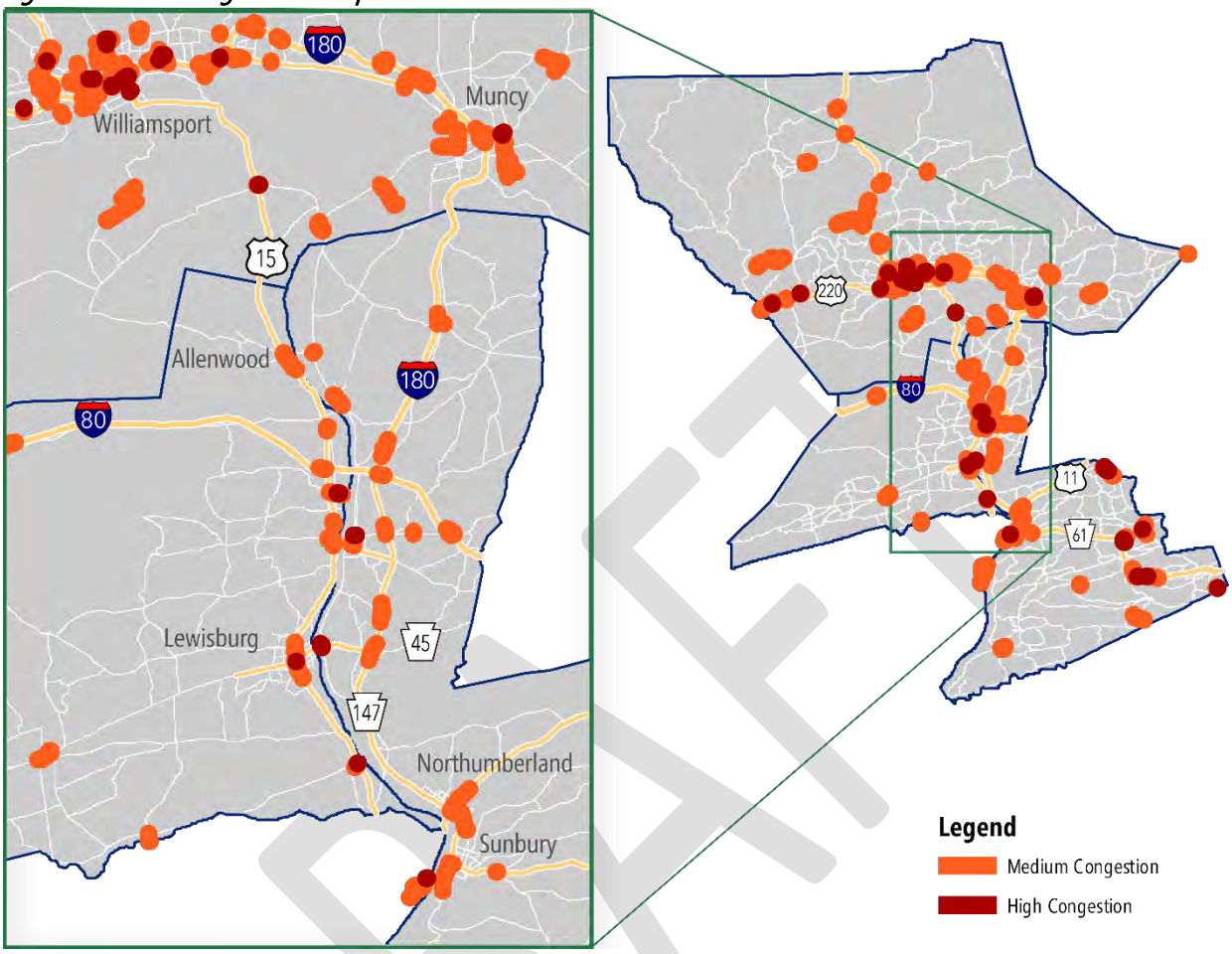
TRAFFIC CONGESTION

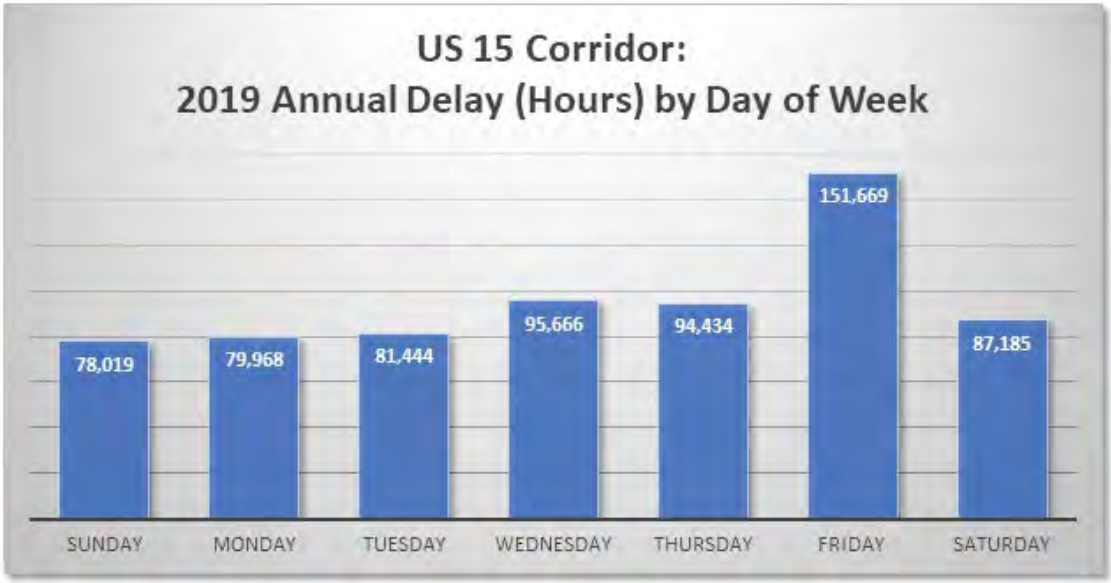
Traffic congestion is an important aspect to consider in assessing the impacts of the CSVT Project. Existing traffic congestion has been assessed in the study area using available INRIX 2020 GPS travel time data acquired through PennDOT. This data represents actual travel times collected from vehicles traveling within the region. Roadway segment traffic congestion measures were calculated by comparing average AM and PM peak period travel times to off-peak times (e.g., nighttime). The greater difference between those times, the higher the congestion level. The data was used to identify key congestion hotspots as shown in **Figure 6**. Key congestion hotspots along the US-15 and PA 147 / I-180 corridors include:

- US 15 in Shamokin Dam
- US 15 in Lewisburg
- US 15 in Allenwood (PA 44 Intersection)
- PA 147 in Sunbury and Northumberland

Overall, traffic congestion on US 15 was experienced on both weekdays and weekends. Friday typically experiences the most traffic delay, most likely influenced by retail shopping and restaurants in Shamokin Dam and Lewisburg.

Figure 6: Traffic Congestion Hotspots





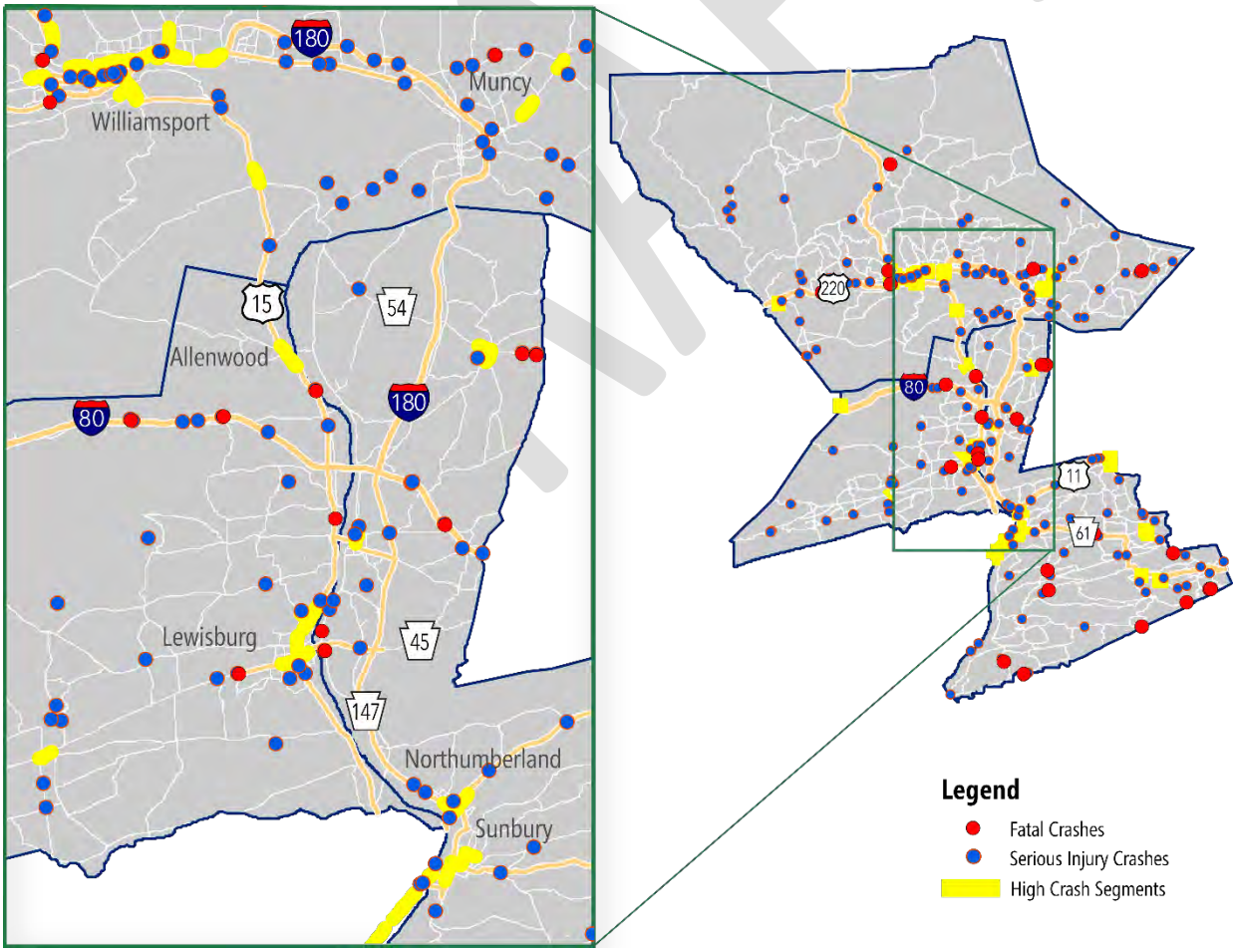
HIGHWAY SAFETY

Another important aspect to consider when assessing probable impacts of the CSVT Project are its potential impacts to highway safety, which is one of the primary purposes of this study. By removing volume and separating through traffic from local trips, PennDOT is correcting some of these issues. A combination of safety evaluations were conducted, one to baseline existing locations with safety concerns and a second to identify locations that are most prone to safety impacts with the opening of the CSVT Project. Existing locations of safety concern were identified through the review of available, reportable crash data over a 3-year period (2018-2020). The data was used to identify high crash segments along and nearby the study area corridors, as shown in **Figure 7**. These high crash segments include:

- US 15 in Shamokin Dam, Lewisburg, and East Lewisburg
- US 15 in Allenwood (PA 44 Intersection)
- US 15 in South Williamsport
- US 15 near PA 54 Intersection
- PA 147 in Northumberland
- PA 54 near Turbotville

Additionally, **Figure 7** depicts the locations of both fatal and serious injury crashes. Fatalities have occurred at many of the safety hotspot locations identified above on US 15 and on I-180 near Muncy and Montoursville.

Figure 7: High Crash Segments and Fatalities



The study process examined interchanges along the corridors to ensure that volume changes and future growth do not create new issues. In order to identify locations that are most prone to safety impacts and also have the greatest opportunity to impart change as a result of the CSVT Project, the number of crashes occurring within the unique roadway features of each interchange along the PA 147 and I-180 corridors was used as a screening tool for further safety evaluation. The number of reportable crashes occurring between 2015 and 2019 was aggregated for each interchange terminal, ramp, and acceleration/deceleration lane (i.e. speed change lane). **Figure 8** provides a visual definition of these terms. The mainlines of PA 147 and I-180 were excluded from this additional safety evaluation so that the outcomes represent opportunities for improvement as lands adjacent to these corridors are developed.

Using a crash threshold of five crashes as a screen to isolate interchange features that have substantive crash history, **Table 2** ranks the terminals, ramps, and speed change lanes from the greatest number of crashes to the least number of crashes, respectively.

Figure 8: Terminal, Ramp, and Speed Change Lane

Table 2: Study Area Crashes: Terminals, Ramps, and Speed Change Lanes, 2015-19

Terminals with Total 5-Year Crashes ≥ 5				
Rank	**Interchange**	**Intersecting Road**	**Terminal**	**# of Crashes**
1	US 15/Market Street/Lewisburg	Market Street	I-180 EB & WB Ramps	24
2	Faxon	Northway Road	I-180 WB Off-Ramp	14
T-3	Warrensville Road/Third Street	Third Street	I-180 EB Ramps	11
T-3	Warrensville Road/Third Street	Third Street	I-180 WB Ramps (Third St)	11
5	PA 87 N/Loyalsock Avenue	Loyalsock Avenue	I-180 EB Ramps	8
T-6	Watsontown/McEwensville	Susquehanna Trail	I-180 EB Ramps	5
T-6	Lycoming Mall Road	Lycoming Mall Road	I-180 EB Ramps	5
T-6	Lycoming Mall Road	Lycoming Mall Road	I-180 WB Ramps	5
T-6	Faxon	Northway Road	I-180 EB Ramps	5
Ramps with Total 5-Year Crashes ≥ 3				
Rank	**Interchange**	**Ramp**		**#of Crashes**
1	Faxon	I-180 WB On-Ramp from Northway Road		6
T-2	I-180/Bellefonte/Bloomsburg	I-80 EB CD-1		3
T-2	I-180/Bellefonte/Bloomsburg	I-80 WB CD-5		3
Speed Change Lanes (SCL) with Total 5-Year Crashes ≥ 5				
Rank	**Interchange**	**Speed Change Lane**		**# of Crashes**
1	Basin Street	I-180 WB Off-Ramp		9
2	I-80/Bellefonte/Bloomsburg	I-80 EB CD to I-80 EB		8
3	Faxon	I-180 WB On-Ramp		6
T-4	I-80/Bellefonte/Bloomsburg	I-80 WB to I-80 WB CD		5
T-4	Lycoming Mall Road	I-180 EB On-Ramp		5

Planning for the Future

To better understand future transportation needs and to assist with strategy identification, the team conducted a multi-step process to evaluate a future land use and transportation vision for the corridor. These steps included coordination with state, local and regional planning partners to gain a better understanding of potential growth areas within the corridor and to identify how the CSVT project might impact that growth. Outreach with county planners, municipal staff/officials, and Focus Central PA identified a total of 78 major land developments that are either planned or being contemplated within the study area. A complete listing is provided in Appendix A and **Table 3** shows the percentage of these developments that are located within one mile of the study area's major corridors, the CSVT project, and both new and existing interchanges. Just over 37 percent of the identified developments fall within one mile of a new or existing interchange within the study area. Approximately 28 percent of these developments are located within one mile of US 15. Other corridors, including the CSVT, have less than a 20 percent share of all proposed development within one mile of their limits.

Table 3: Percentage Development Share within 1 Mile of Study Area Corridors and Interchanges

	#	% Share of Total Proposed Developments
Within 1 Mile of Interchange (Both Existing and New)	29	37.2%
Within 1 Mile of US 15	22	28.2%
Within 1 Mile of I-180	14	17.9%
Within 1 Mile of PA 147	15	19.2%
Within 1 mile of CSVT Project	10	12.8%

Based on the land use vision developed, technical tool sets were applied to better understand the impacts that land use has in combination with the completion of the CSVT project on regional traffic volumes. These traffic volume projections provided important insights on areas for future monitoring and possible transportation strategies.

LAND USE FORECAST AND GROWTH ALLOCATION

The CSVT Special Impact Study included the development of a regional land use vision. The land use vision includes forecast population and employment growth for the study area. These forecasts were based on identified developments, information in county comprehensive plans, historic trends, and other collected GIS information including vacant parcel data. The anticipated completion of the CSVT project influenced land use projections near the interchanges along I-180.

The regional land use vision was developed to inform the identification of potential future traffic and safety impacts within the study area. The assessments were conducted at a planning level with the intent to drive future discussion on transportation needs and to identify ways to better monitor conditions in relation to ongoing and future land use development. The land use vision was developed using the factors and information provided in **Figure 9**.

Figure 9: Data Used to Identify Potential Areas of Development

		Criteria/Scoring	Description
Developability	*A Census Block Area is given a score of zero if it does not meet any of the following criteria.*	Vacant	Vacant parcels provided by county
		Appropriate zoning	Industrial, Agricultural, Commercial
		Slope <25%	-
		Not Located in a Flood Zone	-
Weighting Variables	*Area (sum of vacant parcels)*	4: > 180 acres 3: 50 - 180 2: 10 - 50 1: <10	Sum of vacant parcels within each Census Block
	Water and Sewer Infrastructure	4: Sewer/Water Infrastructure present	Sewer and water infrastructure information was provided in each of the parcel layers
	Growth Boundaries	4: Growth boundary present	Growth boundaries were provided for each of the counties. Union County's consisted of a Primary and Secondary growth boundary
	Known Developments	Census Block scores with known developments were manually adjusted to ensure the final weighting score was in the "High Growth Potential" category	Known developments consist of residential and employment development layers
	Historic Growth	4: >100% 3: 0% - 100% 2: -50% - 0% 1: <-50%	Changes in Employment Growth 2002-2017, Housing Unit Change 2012-2020, and Population Change 2012-2020
	Distance to State Roads and Interstates	3: Within 3 miles of an NHS route 3: Within 0.5 miles of a Collector route	A buffer was placed around NHS routes and Collector routes
	Distance to Interchange	4: Within 1 mile of an Interchange	A buffer was placed around interchange locations

Land development within the study area will occur where zoning and utilities will support it. As such, land use, development, and infrastructure data used to build the regional vision for the study area was gathered through outreach with county planners, officials from all 30 study area municipalities, and economic development agencies. Information on public sewer and water infrastructure and projects was also collected through discussions with local authorities. Using the criteria described in **Figure 9** above, growth was allocated to specific areas within each county. Areas were deemed 'developable' if the parcels met the criteria of vacancy, designated zoning, slope, and position outside a floodplain. The developable properties were provided scores based upon each of the Weighting Variables above. These scores, or growth allocations, resulted in the regional vision.

All stakeholders were provided with a study overview and draft growth allocations. Upcoming infrastructure projects, proposed developments, and community development efforts within their respective jurisdictions were discussed.

Feedback was incorporated into revised growth allocations and the regional "build-out" scenario. These local level insights also contributed to shaping the study recommendations. The MPOs provided all narratives and recommendations resulting from the outreach to the county planners and municipal officials for their review, comment, and confirmation prior to being incorporated into the final report.

REGIONAL "BUILD-OUT" SCENARIO

The regional "build-out" scenario represents a mid- to long-term vision (e.g., 10-25 years) for the study area. It was developed using a top-down approach based on "reasonable" county growth rates.

The regional growth rates assumed for this effort were developed based on recent forecasts prepared by Woods & Poole Economics. The information is based on a national life cycle and economic approach. Both Lycoming and Northumberland County were projected to have population decreases. For the scenario application, this study assumes some small growth in these counties. The projected population and employment changes were factored into the scores of the growth allocations discussed above, providing the final regional "build-out" scenario. The change in population and employment will also be used to assess future vehicle trip growth. The impacts of CSVT are hard to predict. Current assumptions have identified areas around key interchanges that may be expected to grow due to increased traffic volumes and access.

Figure 10: Study Area Growth Rate Assumptions

WOODS & POOLE ECONOMICS WASHINGTON D.C. *Newest 2020 Profile*

County	Population (2020-2040)	Employment (2020-2040)
Lycoming	-1.8%	15.1%
Northumberland	-2.3%	9.3%
Union	7.0%	22.8%
Snyder	5.3%	14.9%

Study Build-Out Scenario County Growth Assumptions

County	Population	Employment
Lycoming	1.0%	15.1%
Northumberland	1.0%	9.3%
Union	7.0%	22.8%
Snyder	5.3%	14.9%

POPULATION AND EMPLOYMENT VISION MAPS

The following screen shot of the project WebMap (**Figure 11**) provides information on all of the variables used in calculating growth throughout the study area.

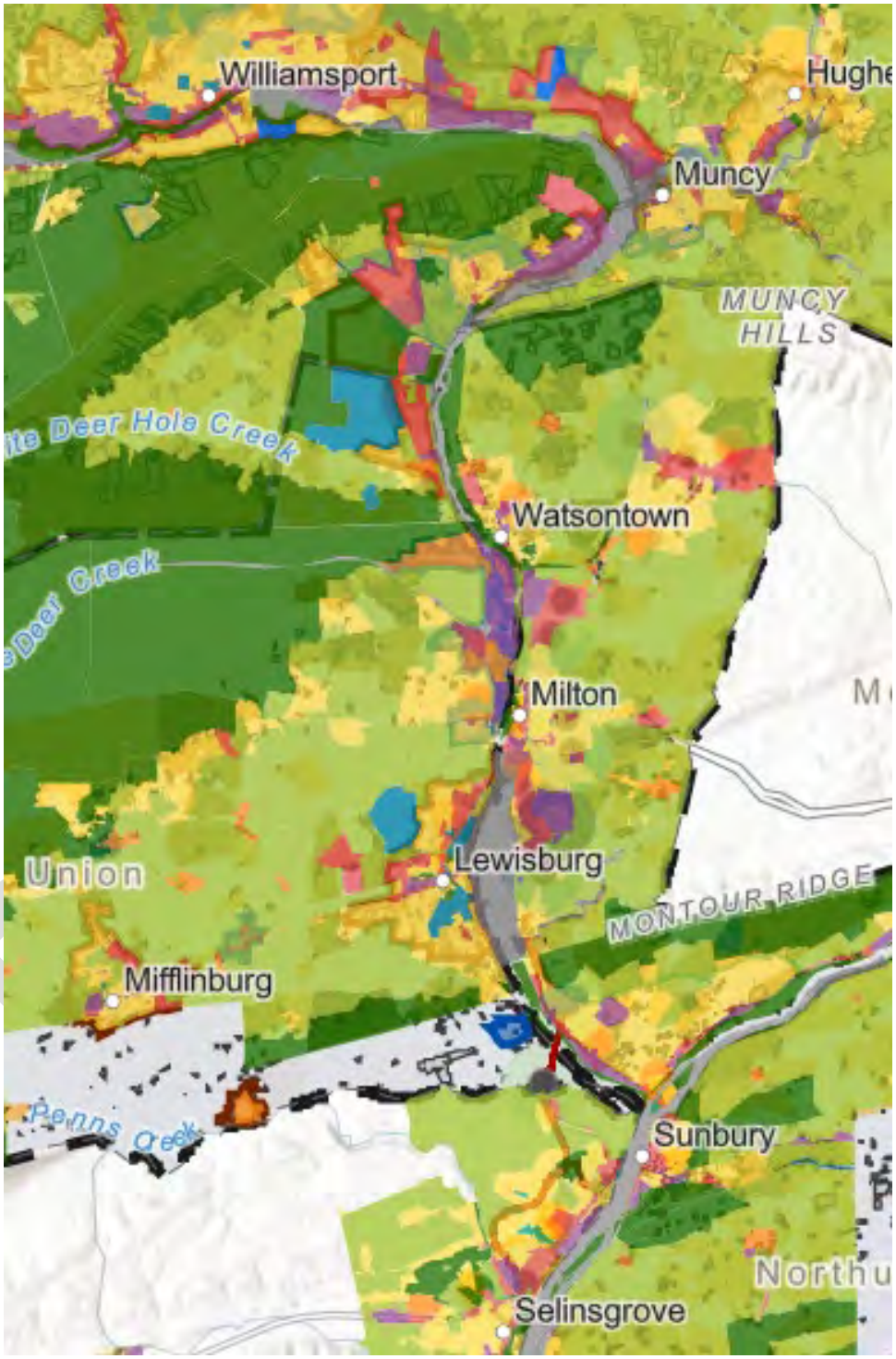
The WebMap can be reviewed at the following link: Williamsport Area Transportation Study (WATS) (arcgis.com)

- Reference layers such as County Boundaries, highway routes, and interchanges come on by default when the map loads.
- The map also incudes Zoom in/out buttons as well as a search bar that can be used for an address.
- Users wishing to export the map for printing may do so as opposed to a screengrab.
- Users may also select among a variety of options for base maps.
- The WebMap also includes selections of data layers that can be toggled on and off. Each category is labeled as such:

- VP – Vacant Parcels
- GA – Growth Areas / Estimated Potential Growth by Interchange
- JG – Job Growth
- PG – Population Growth, Residential Growth by Census Block
- PD – Proposed Developments
- Z – Zoning
- REF – Reference layers
- ALL – All layers, as some users might prefer to have all of the layers accessible in one list to toggle on/off.

- When navigating in the WebMap sidebar, users will need to select the "Other Panels" button to view PD, Z, REF, and ALL.

Figure 11: Screen Shot of Project WebMap

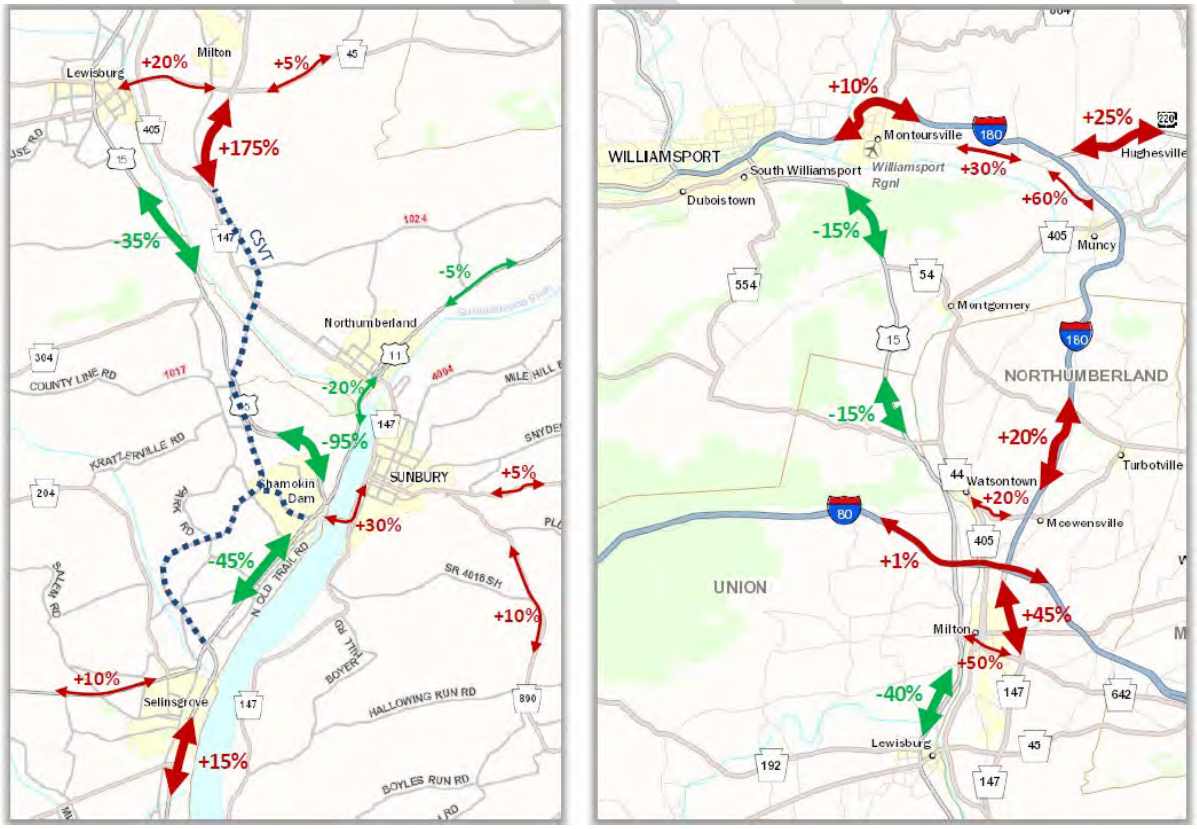


TRAFFIC MODELING: VOLUMES AND LEVELS OF DIVERSIONS

Through a series of statewide travel demand model runs, an assessment was made to determine how traffic volume could change with the forecast land use vision and a completed CSVT project. **Figure 13** highlights the key traffic volume changes projected in the region. These include:

- US 15 traffic volumes are expected to decrease significantly, especially south of Lewisburg. In Shamokin Dam, modeling projects nearly a 45 percent reduction in traffic volume. North of I-80, US 15 traffic is projected to decrease by about 15 percent.
- The completion of the CSVT project may increase US 15 traffic south of Selinsgrove by 10-15 percent.
- Several east-west road connections from CSVT and I-180 are expected to increase in traffic volume. This includes PA 45 into Lewisburg, where a 20 percent increase in traffic resulted in the modeling. In Milton, nearly a 50 percent increase in volume was projected on PA 642. In Watsontown, PA 44 was projected to have 20 percent increase in traffic volume. Each of these increases would have significant impacts on local traffic congestion and safety in those areas.[1]
- US 220 toward Hughesville was projected to have traffic increases of 25 percent. The completion of the CSVT project drew more traffic to the I-180 and US 220 corridor to areas north and east of the study area.
- Significant development near Muncy and the Lycoming Mall will increase traffic volumes at those interchanges and also significantly increase traffic volume along Lycoming Mall Drive and North Main Street.

Figure 12: Forecast Traffic Volume Changes Due to Projected Developments and CSVT Completion



[1] Note: Travel demand modeling is too coarse to separate passenger cars and commercial trucks for the purposes of forecasting growth by vehicle classification.

HIGHWAY SAFETY OPPORTUNITIES

Using 2015-2019 reportable crash data previously summarized in the Understanding Existing Conditions section of the study, the methodologies outlined in the American Association of State Highway and Transportation Officials' (AASHTO) Highway Safety Manual (HSM), First Edition, and PennDOT's Publication 638A, Pennsylvania Safety Predictive Analysis Methods Manual were applied to each of the locations noted in **Table 2** to understand what specific interchange features are experiencing more crashes than they should be 'today' and are thus locations that should be paid attention to as CSVT Project land use and traffic redistribution impacts occur.

Table 4 lists the interchange features that are experiencing excess crash costs. These finding are ranked in order from greatest excess cost to least excess cost. Excess cost is the monetization, based on the cost to society of different crash types and injury severities, of the delta in crashes between observed (existing) crash history and the predicted number of crashes. In lay terms, **Table 4** shows what interchange features have the greatest opportunity for a return on infrastructure investment.

Table 4: PA 147 and I-180 Interchange Features in Excess Cost Order

Feature Type	Interchange	Feature Description
Terminal	US 15/Market Street/Lewisburg	I-180 EB & WB Ramps
Speed Change Lane	Basin Street	I-180 WB Off-Ramp
Terminal	Warrensville Road/Third Street	I-180 WB Ramps (Third St)
Ramp	Faxon	I-180 WB On-Ramp from Northway Road
Speed Change Lane	I-80/Bellefonte/Bloomsburg	I-80 WB to I-80 WB CD
Speed Change Lane	Lycoming Mall Road	I-180 EB On-Ramp
Speed Change Lane	I-80/Bellefonte/Bloomsburg	I-80 EB CD to I-80 EB
Speed Change Lane	Faxon	I-180 WB On-Ramp

Implementation Strategies & Next Steps

STUDY RECOMMENDATIONS

The team organized the study recommendations into several categories, including land use; economic development; traffic operations; safety; multimodal transportation; and planning and administration. The implementation plan includes supporting information, including implementing agency lead, planning-level cost estimates, and recommended timing. Other action steps were also provided to assist in making the transition from planning to implementation.

The reader should note that PennDOT consistently works with municipalities throughout the District to identify projects to improve traffic flow. Several of the study recommendations include monitoring interchange off-ramps or signal re-timings based on potential traffic projections. The reader should also note that any future developments within the study area will be subjected to the HOP process and signalizing interchanges or re-timings will be based on the results of a TIS. Any signing or roadway geometry upgrades suggested within this report should ideally be addressed through future roadway reconstruction projects or related upgrades and not as stand-alone projects in order to maximize the use of available dollars unless there is an immediate severe crash pattern that needs addressed.

The **Implementation Plan** is a menu of offerings for the Study Implementation Task Force to consider as it administers and monitors the execution of needed action items.

While it is unlikely that every recommendation will be implemented or acted upon, they were designed to encourage improvement in the conduct of government programs and operations and are addressed to parties with the authority to act. The Implementation Task Force will have a wide-ranging menu of options to consider as it monitors and measures progress.

The study recommendations offer a framework for the MPOs, PennDOT, and their stakeholders in what needs to be accomplished to prepare for CSVT's impacts. A critical component of the study's implementation strategy includes monitoring and addressing the impacts of the CSVT Project as it opens to traffic. Local government stakeholders and the public are encouraged to assist in this essential implementation step to fulfill the vision and needs identified in this study. The Williamsport and SEDA-COG MPOs hold regular meetings that are open to the public and provide an opportunity to voice transportation concerns. The MPOs' 3C planning process (continuous, cooperative, and comprehensive) provides the essential framework in which implementation of this study's recommendations can be successful.

Successful mitigation of CSVT's impacts will rely heavily on regular and routine stakeholder participation and involvement. The creation of a CSVT Study Implementation Task Force will serve as the primary body responsible for administering the study's implementation plan under the aegis of the MPOs and PennDOT. The Task Force should meet on a quarterly basis. Meeting frequency over the long-term can be reevaluated and adjusted as new CSVT traffic patterns reach equilibrium and as local land use management practices improve.

Study recommendations are organized by the following categories:[2]

[2] Legend for estimated costs:
$: < $250K
$$: between $250K and $500K
$$$: between $500K and $1M
$$$$: between $1M and $5M
$$$$$: > $5M

- Traffic Safety (TS) to address hotspots with excess crashes based on Highway Safety Manual (HSM) analyses.
- Traffic Operations (TO) including vehicle navigation aids, signing, signal timings, etc.
- Transportation Enhancements (TE) including multimodal improvements, traffic calming, Complete Streets, etc.
- Land Use (LU) to address updates to existing and creation of new county and local plans, policies, and ordinances.
- Economic Development (ED) including projects to improve infrastructure to facilitate job growth and community development.
- Planning and Administration (PA) to continue coordinating planning efforts across the CSVT study area.

Traffic Safety (TS)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TS-1	Pavement Markings – Entire I-180/PA 147 Corridor	Update pavement markings at exit and entrance ramps and gores to meet current PennDOT and MUTCD Standards. Add painted chevrons in selected gore areas.	PennDOT	$	2 years

- Issues/Concerns: Excess crashes per HSM analyses have been identified at a number of entrance and exit ramps and along speed change lanes in the existing condition: specifically, at Interchanges 26, 17 and at the I-80 Interchange. Additional traffic on this corridor and motorists unfamiliar with the area as a result of the CSVT project will benefit from positive guidance provided by updated pavement markings at all interchanges.
- Recommendation Details: Increase width of solid white edge and lane lines at gores of entrance and exit ramps to 8" in keeping with PennDOT standards depicted in PennDOT Publication 111.Similarly, upgrade all auxiliary lane pavement markings along merge lanes and along auxiliary lanes to meet Pub. 111 details (8" skips). Add or revise gore stripes at interchanges that have experienced excess crashes (26, 17, and I-80 interchange) to meet MUTCD requirements for chevron shape and orientation. This will encourage motorists to align with and stay in acceleration lanes prior to merging.
- Implementation:
  - Considerations: Upgrades to interchanges that have experienced excess crashes should occur in the near term. Updating of entire corridor should occur concurrent with or prior to the implementation of the CSVT project.
  - Support Partners: PennDOT
  - Potential Funding Sources: Maintenance budget, concurrent with annual (bi-annual?) striping maintenance or concurrent with resurfacing projects.
- PennDOT Notes:
  - Existing gores appear to be 8" lines as per Pub 111. Gore areas could benefit from adding 'Chevron' small paint pavement marking configuration. However, a review of MUTCD requirements indicate that some of the wider paint lines and painted chevrons in the neutral gore area are optional.
  - PennDOT will review crash report details at the ramp locations and speed change lanes to identify causation factors, and unless there is a prominent crash pattern at a particular location, markings will be reviewed for upgrades during future resurfacing and reconstruction projects and the cost funded by those projects. If a prominent crash pattern, addressable by pavement markings is found, the department will update pavement markings with the annual Freeway Line Paint Contract, department forces, or other means.

TS-2	Signing at I-80/ I-180/PA 147 Interchange	Reevaluate advance guide sign and lane designation configuration to provide updated advance guide signing for Freeway-to-Freeway Interchange (Per MUTCD figure 2E-34)	PennDOT	$$$$	???

- Issues/Concerns: Excess crashes per HSM analyses have been identified along a number of the collector-distributor roads and speed change lanes at the I-80 Interchange. Any confusion regarding lane assignment or movement can lead to excess crashes. Clear and properly-spaced guide signs can help mitigate this. Additionally, completion of the CSVT project should be expected to involve a redistribution of traffic and concurrent changes in wayfinding and destination signing, creating a concurrent need to address guide sign changes at this interchange. Completion of CSVT may also result in a desire to update/revise the guide signing at the I-80/US 15 interchange to the west of this interchange to revise the destinations/wayfinding.

Recommendation	Description	Lead Entity	Estimated Cost	Timeframe

- Recommendation Details: Reevaluate the advance and interchange guide signs and lane designation configuration at this freeway to freeway interchange. Potentially relocate overhead (OH) guide sign structures and add additional OH/cantilever structures to provide updated advance guide signing that follows the MUTCD recommendations for Freeway to Freeway Interchanges (MUTCD figure 2E-34).
- PennDOT Notes: Modification of existing signing for the I-80 WB Off-ramp to I-180 WB would likely be valuable – adding advisory speed to sign and having 'Exit Only' below the sign. Moving sign structures does not appear to be necessary. Sign structures are typically evaluated for upgrades and replacement with larger reconstruction projects and the cost absorbed by the project.

- Implementation:
  - Considerations: Updating of guide signs for the interchange should occur concurrent with completion of the CSVT project, since the interchange traffic flow interactions will very likely exhibit more freeway to freeway operational attributes, and the guide signing should be upgraded to match.
  - Support Partners: PennDOT
  - Potential Funding Sources: to be absorbed as part of any larger reconstruction project

TS-3	Susquehanna Trail Interchange (Exit 1/ I-180)	Basic countermeasures for stop-controlled intersection	PennDOT	$	1 Year

- Issues/Concerns: Excess crashes per HSM analyses have been identified at the eastbound I-180 ramp terminal intersection with Susquehanna Trail. The crash history indicates vehicles running the stop sign or turning vehicles stopped in traffic were the primary factors. The projected employment buildout in the vicinity of this interchange suggests an increase in traffic volume will likely access these ramps in the future, exacerbating any underlying existing safety issues.
- Recommendation Details: Implement basic safety countermeasures for stop-controlled intersections at the eastbound ramp terminals. A review of Google Maps indicates a number of these basic countermeasures have been implemented in the recent past and any benefits from this implementation are not yet reflected in the crash history. The district traffic unit should review crash details and potentially implement sign upgrades and other counter measures for running stop signs crashes at this location, if justified.
- Implementation:
  - Considerations: Additional traffic generated in the future from the projected employment buildout may exacerbate underlying safety issues at this intersection/interchange. Initial analysis of crash history suggests the addition of left turn lane bays to remove stopped/turning traffic from the Susquehanna Trail through movement flow may be warranted in the future. As adjacent and nearby properties are developed, thus increasing nearby traffic volume, HOP reviews may include a reevaluation of this potential need.
  - Support Partners: PennDOT
  - Potential Funding Sources: Maintenance Budget (for low-cost sign upgrades/countermeasures)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TS-4	Warrensville Rd/ 3rd St Interchange (Exit 23/I-180)	Revise EB off- ramp terminal configuration and related signal	PennDOT	$ - $$	1 - 3 years

- Issues/Concerns: Excess crashes per HSM analyses have been identified at the EB ramp terminal intersection with E 3rd St. The ramp terminal intersection is signalized; however, the off-ramp leg is a right-turn only, is not clearly channelized, and the off-ramp approach is not signalized. The ramp is clearly angled to encourage right turns only and discourage all other movements. Any motorist attempting a left turn or going straight through the intersection is likely deliberately trying to make a left turn despite it being restricted to right turn only. Additional channelization still might not stop this from occurring, and could be an impediment during emergency situations, resurfacing operations, and accommodating large loads. Adding signal timing phases or running additional movements through this signal would likely add to the congestion already experienced on SR 2014 between Montoursville and Loyalsock during peak hours. PennDOT has not received any public complaints regarding the design of this intersection.

- Recommendation Details: Study the intersection and revise the signal and the channelization of the right turn lane /EB off-ramp to provide clear guidance to motorists. The intersection movements should be observed to determine whether there is cross intersection demand and mitigations should be adjusted accordingly. Options could include:
  - Revise geometry to provide more clear channelization of off-ramp right turn.
  - Construct a channeling island for positive guidance.
  - Increase signing from off-ramp reinforcing no left turn or through movements through signalized intersection
  - Double-up (both sides of ramp) and oversize 'All Traffic Must Turn Right" signs. (Note: Installing on the left may likely result in the sign getting knocked off the concrete barrier, unless it's installed prior to the barrier.)
  - Move stop sign to increase conspicuity, and move 'All Traffic Must Turn Right' sign to below the stop sign.
  - Install R3-5R (Right Turn Only) sign where existing 'All Traffic…' sign is. Install 'No Left Turn' sign on back of 'Keep Right' sign in median.

  Other intersection and signal improvements to address the excess crash history at this ramp terminal intersection would include:
  - adding reflectorized strips on the backplates of the signal heads;
  - adding a near-side signal head for Old Montoursville Road; and
  - adding a signal ahead sign to Old Montoursville approach.
- Implementation:
  - Considerations: Some of the lower cost mitigations such as painting in a channelizing island and increased signing could occur in the near term, while more expensive, complex solutions/mitigations are being designed/developed. The employment projections indicate that the area across from the off-ramp on Old Montoursville Road is expected to experience growth in the future. If this destination draws traffic off I-180 EB, then any redesign considerations should take this future trip generation movement into account.
  - Support Partners: PennDOT
  - Potential Funding Sources: Maintenance Budget, Operations Budget, HSIP Funds, GLG Funds

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TS-5	WB On-Ramp at Faxon Interchange (Exit 25/I-180)	Reconstruct WB on-ramp and merge areas	PennDOT	$$$	3 Years

- Issues/Concerns: Excess crashes per HSM analyses have been identified along the WB on-ramp, the internal merge area within the ramp, and the speed change lane/ merge area with I-180. A number of rear-end crashes cited vehicles approaching stopped traffic, indicating unexpected congestion and potential sight distance issues. This could be an indication of motorists unfamiliar with the area and local traffic patterns utilizing this ramp and/or inconsistent upstream congestion on I-180 (both potentially due to the area being a Little League destination). Mainline I-180 traffic volume growth expected with the completion of the CSVT may exacerbate the merge conflicts and accentuate any underlying safety issues at this ramp.
- Recommendation Details: Study traffic operation of ramp and upstream traffic flow. Consider reconstruction of portions of ramp and speed change lane to extend/lengthen/ clarify merge areas of both the incoming side ramp and the main ramp into the I-180 travel lanes. Adjust vertical curve/grade of ramp to improve sight distance for accelerating vehicles coming over the rise toward I-180 (a number of crashes cite rear-end crashes of cars coming over the ramp crashing into vehicles stopped in traffic) During the design phase of future reconstruction projects the Department can evaluate crash patterns and assess the need to lengthen ramps make geometry adjustments.
- Implementation:
  - Considerations: Operations and crash analysis should occur during times of normal traffic and during times of Little League activity.
  - Support Partners: PennDOT
  - Potential Funding Sources: NHPP; STP; APD

TS-6	WB Off-Ramp Speed Change Lane(s) at Basin St. Interchange (Exit 26/I-180)	Revise guide signing and clarify pavement markings for Exits 26 and 27A. Consider wayfinding and service signing.	PennDOT	$ - $$$	1 Year

- Issues/Concerns: Excess crashes per HSM analyses have been identified along the WB off-ramp speed change lane at the Basin St. exit. The speed change lane is adjacent to the exit-only lane for Exit 27A, which is a relatively unusual lane configuration. While it is possible that the advance guide signs for the combined exit numbers (located just east of the pedestrian overpass and at the start of the exit only lane) are confusing to motorists (implying that Basin St and Market St are both US 15 South routes), widespread confusion over the signage has not been observed. Additional and revised guide signing, and standard auxiliary lane pavement markings may help clarify lane assignments and destinations for the potentially high proportion of out-of-town traffic (Little League). Additionally, there is a "Visitor Info" sign attached to the OH sign support at the beginning of the auxiliary and exit lane guide sign location. It is not clear where the "Visitor Info" destination is, and this may also lead to destination/ lane assignment confusion for 'Visitors." Additionally, some of the crash history associated with this speed change lane could be associated with queueing from the Market St. off-ramp/adjacent auxiliary lane. Mainline and Market St. Interchange WB off-ramp traffic volume growth expected with the completion of the CSVT may exacerbate the conflicts through this area and accentuate any underlying safety issues. While confusion over the Visitor Info sign has not been observed, it could be changed to a ground mount sign with an arrow.
- Recommendation Details: Study traffic operation of Basin St. off-ramp and interaction with adjacent Market St. exit-only auxiliary lane. Consider adding an additional Basin St. exit guide sign near physical gore of ramp (similar to that shown in MUTCD Figure 2E-34 B - Example of Signing for Successive Exit Ramps with a Dropped Lane at the Second Exit), and updating auxiliary lane pavement markings to meet Pub 111 for full length of exit only lane. Revise wording on advance guide signs to indicate clearly that US 15 S is only 27A/Market St exit. (i.e., Basin St. listed first, then US15 S shield and Market St. under. An example of a similar configuration is located at Exit 32-31A on I-95 S in Md. near

Recommendation	Description	Lead Entity	Estimated Cost	Timeframe

mm 34). May also consider more detailed general service and tourist information signing with distance and exit numbers to assist tourists in accessing the correct interchange for their destination and not inducing hesitancy on the interstate as they navigate to their destination.

- PennDOT Notes: Exit 32-31A are one exit lane. PennDOT has not received calls on these signs being confusing and believes signage at Basin exit is clear. An 'Exit only' sign below Basin St sign could be added as a potential improvement.
- Implementation:
  - Considerations: Potential mitigations and suggestions associated with this location vary greatly in scope and cost. Some of the mitigations/solutions can be implemented quickly, and some could be expensive and design intensive. Effects of queueing for the Market St. WB exit only lane and the Basin St. exit lane require additional study. Traffic modeling suggests that completion of the CSVT project is expected to relocate a good deal of Williamsport destination traffic off of US 15, meaning a number of tourists will not pass the Little League Hall of Fame on their way into town. Thus, it can be expected that additional wayfinding may be necessary on I-180 to address tourist needs, and the distribution of trips on and off these exits may vary significantly during high tourist seasons as compared to "averages". There is currently recurring congestion caused by capacity during peak hours on multiple approaches to the SPUI. Two major ones include the US 15 left onto I-180 WB and the I-180 WB off ramp to US 15.
  - Additional wayfinding signs would only be allowed as per Pub 46 and paid for by entity, which is the current standard.
  - Support Partners: PennDOT
  - Potential Funding Sources: Maintenance Budget, Operations Budget, Specific Service Sign (Pub 212.121) and Tourist Oriented Directional Signs (Pub 212.123)

TS-7	US 15 South/Market St Interchange (Exit 27A/I-180)	Evaluate and install intersection and traffic signal enhancement/conspicuity measures for unusual intersection configuration	PennDOT	$ - $$$	1 - 4 years

- Issues/Concerns: Excess crashes per HSM analyses have been identified at the EB and WB ramp terminal intersection with Market Street. The ramp terminals and their associated geometry constitute an unusual intersection design and operation known as a SPUI (Single Point Urban Intersection). This type of design creates a large single intersection with a very large uncontrolled area in the middle, which can lead to driver confusion for drivers unfamiliar with this intersection type, particularly drivers turning left or right. Based on traffic modeling, completion of the CSVT project will likely lead to very different traffic patterns through this intersection, since it is forecast that a not-insignificant portion of US 15 NB through traffic, currently turning left through this SPUI, will likely be already diverted onto I-180 and continuing on the mainline I-180 to US 15 N, never using this intersection. Similarly, SB US 15 through traffic currently turning right is expected to continue on I-180 EB, post-CSVT. Conversely, more traffic is anticipated to be accessing tourism destinations in South Williamsport (e.g., Little League) via I-180 over US 15 in the future.
- Recommendation Details: Consider intersection enhancement and conspicuity measures found to be effective at other unusual intersection configurations that share some similar attributes with the SPUI; particularly pavement color treatments for shoulders and island areas to more clearly delineate the travel way, similar to use of color on truck aprons and color on increased shoulder/turning areas at roundabouts. Consider use of lane designation signs on the mast arms and signal head per lane, found to be effective for helping motorists understand their lane designations at diverging diamond interchanges. Study the intersection and revise the signal timing and phasing once traffic patterns settle out; as signal timing and delay can contribute to safety. Current crash history indicates the right turn EB off ramp traffic green arrow overlap with WB off ramp green may be contributing to out of lane crashes; this should be investigated to see if revised lane markings or phasing should be implemented, or a merge lane introduced to keep these separate movements in their lanes until they can safely establish right-of-way. Other intersection and signal improvements to address the excess crash history at this ramp terminal intersection would include:

Recommendation	Description	Lead Entity	Estimated Cost	Timeframe

- Install object markers or delineators on islands
- Evaluate advance route and directional signing on ramps to help unfamiliar motorists select correct lane for desired destinations
- Update signal backplates to include retro-reflective strips to help with signal conspicuity
- A number of crashes occurred in wet or icy conditions. Consider HFST-type bridge treatments or consider additional attention in winter conditions. Similarly, consider all-weather pavement markings for improved retro-reflectivity

- Implementation:
  - Considerations: Some of the lower cost mitigations such as painting and signing could occur in the near term, while more expensive, complex solutions/mitigations are being designed/developed. Recommend providing alternate timing plans for Little League and other high tourist seasons, as they are likely to experience significantly different trip distributions, with the potential for unexpected queueing onto I-180 (and related rear-end crashes). Ramp preemption timing and location should be reevaluated, concurrent with signal timing revisions. Redesign considerations should take future trip redistribution movements into account. The intersection movements should be observed (both during typical days and during high tourist season when motorists are more likely to be unfamiliar with the SPUI operation) to determine the level of positive guidance needed and mitigations should be adjusted accordingly.
  - Extreme care should be exercised in exploring traffic signal phase changes. It should be noted that modifying SPUI timing phases to prevent the EB and WB overlap movements as referenced above could take away the signal timing and capacity-adding benefits of a Single Point Urban Interchange (SPUI) and could exacerbate current capacity/congestion issues.
  - Adding additional signal heads or signs to existing arms may be limited to what they were originally designed for. Installing additional poles or increasing the size of signal poles may be limited without additional structure modifications. The current poles are not mounted to the bridge deck, but rather go through a hole and are mounted to the piers.
  - Support Partners: PennDOT
  - Potential Funding Sources: Maintenance Budget, Operations Budget, GLG Funds

Traffic Operations (TO)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-1	Regional Wayfinding Signage for Trucks	Evaluate signage needs for trucks traveling through the corridor and those destined for points west of the Susquehanna River	PennDOT District 3	$$	Short-term

- Issues/Concerns: Ensure that long distance truck travel remains on CSVT and I-180, limiting trucks through Shamokin Dam and Lewisburg on US 15. Efforts to limit trucks will support local initiatives to provide multi-modal improvements including bike and pedestrian infrastructure in those areas anticipated to experience traffic reductions as a result of the CSVT. Trucks destined to points west of the Susquehanna should be directed to US 15 to limit travel on PA 45 into Lewisburg from the CSVT. Coordinate with other regional planning partners and PennDOT District Offices on whether US 522 is serving long-distance truck travel from CSVT to the Pennsylvania Turnpike and what role signage could play at addressing regional truck corridor concerns. Wayfinding will only be addressed through PA Tourism Signing Trust to add to the Logo program or the TOD program.
- Recommendation Details: Coordinated study between PennDOT, MPO, municipalities to better identify signing details and engineering requirements.
- Implementation:
  - Considerations: Can be implemented in short term. May require coordination with state, regional, and/or local freight stakeholders.
  - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
  - Potential Funding Sources:

TO-2	Regional Wayfinding Signage for Regional Travelers	Develop a regional wayfinding initiative to enhance visibility and promote visits to historic, shopping, dining, and recreation destinations in area	WATS/SEDA-COG	$$	Short-term

- Issues/Concerns: Completion of the CSVT will have impacts on businesses along the US 15 and CSVT corridors. To support economic development, traffic enhancements and regional safety, additional signage will be needed to better inform motorists of key destinations and appropriate access points.
- Recommendation Details: The wayfinding initiative will require significant coordination with local businesses to determine important destinations that may require wayfinding and signage. Additional coordination with PennDOT District 3 is needed to identify appropriate signage design and locations. Wayfinding will only be addressed through PA Tourism Signing Trust to add to the Logo program.
- Implementation:
  - Considerations: Can be implemented in shorth term. Will require coordination with local business stakeholders.
  - Support Partners: PennDOT District 3 can support engineering assessments; municipalities can help inform economic needs and priorities
  - Potential Funding Sources:

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-3	US 15 Traffic Signal Re-Timing	Conduct studies to revise traffic signal timings along the corridor based on changes to traffic volumes due to completion of CSVT	PennDOT District 3	$$	Short-term

- Issues/Concerns: Completion of the CSVT is expected to reduce traffic volumes on US 15, especially from Selinsgrove through Lewisburg. A comprehensive signal timing initiative may be required where traffic volumes are impacted the most. Signal timings updates will improve access to key businesses and limit congestion for cross-streets. Improvements may also support other multi-modal initiatives in Shamokin Dam and Lewisburg.
- Recommendation Details: Traffic signal retiming efforts will be led by PennDOT District 3. SEDA-COG and local municipalities should provide insights to PennDOT on any traffic signal operation issues after completion of the CSVT.
- Implementation:
  - Considerations: Signal timing changes will require continued monitoring of traffic volume changes on US 15 after the CSVT completion. Spot intersection turning movement counts should be conducted 1-2 years after roadway completion to assess changes to travel patterns.
  - Support Partners: PennDOT District 3 as lead with support from SEDA-COG and municipalities
  - Potential Funding Sources: GLG
- PennDOT Notes: The US 15 corridor in Kelly Township will have controller upgrades and tied into PennDOT's Maxview system to use signal performance metrics for retiming the corridor. This will be completed with a GLG project within the next 2 years. US 11/15 in Shamokin Dam and Monroe Township will have the same system to evaluate timings.

TO-4	Intersection Improvements near PA 45/CSVT Interchange	Evaluate need for intersection control modifications at PA45/CSVT interchange off-ramps and PA 45/Housel Run Road.	PennDOT District 3	$$	Medium-term

- Issues/Concerns: Traffic modeling projections indicate potential increases of traffic on PA 45 west of the PA 45 / CSVT interchange towards Lewisburg with the completion of the CSVT. Future development to the north at the Milton Area Industrial Park may also exacerbate traffic demand on PA 45. Several intersections are currently controlled by a stop sign or flashing beacon. These include the off-ramps from CSVT and the intersection of PA 45 and Housel Run Road. Other intersection control devices should be evaluated if intersection volumes increase. Any mitigation needed to address future development should be addressed through the HOP process.
- Recommendation Details: PennDOT District 3 can conduct a traffic signal warrant analysis if significant changes to traffic volume occur or if other safety issues are identified. Other intersection control options can also be assessed to address issues. In addition, signage and/or truck restrictions can complement intersection improvements to limit truck access to the interchange just north of PA 45.
- Implementation:
  - Considerations: Support from SEDA-COG and local municipality in monitoring any issues that may be occur at this intersection. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system. Spot intersection turning movement counts could be conducted 1-2 years after roadway completion to assess changes to travel patterns.
  - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
  - Potential Funding Sources: HSIP

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-5	Intersection and Capacity Enhancements on Industrial Park Road	Evaluate need for intersection control modifications and spot capacity improvements at or near Industrial Park Road/CSVT interchange.	PennDOT District 3	$$	Medium-term

- Issues/Concerns: The continued expansion of the Milton Area Industrial Park will attract additional vehicular and truck traffic to this interchange. The current off-ramp intersections are stop-controlled and may create ramp queues if truck volumes increase significantly. Other spot capacity improvements may be needed just west of the interchange based on the growth of the industrial park and potential other commercial establishments. Such improvements may be addressed through development traffic impact studies. Issues and needs may be exacerbated if this interchange adds a truck stop or other amenities for regional truck travel.
- Recommendation Details: PennDOT District 3 can conduct a traffic signal warrant analysis if significant changes to traffic volume occur or if other safety issues are identified. Other intersection control options can also be assessed to address issues. Other land use changes included the addition of truck stops or other commercial amenities may impact the strategies and timing.
- Implementation:
    - Considerations: Support from SEDA-COG and local municipality in monitoring any issues that may be occur at or near this interchange. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing local land use changes.
    - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
    - Potential Funding Sources:

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-6	Intersection Improvements and timing updates near PA 642/CSVT Interchange	Evaluate need for intersection control modifications at PA 642/CSVT interchange off-ramps and signal retiming at PA 642/Turbot Avenue.	PennDOT District 3	$$	Medium-term

- Issues/Concerns: Traffic modeling projections indicate potential increases of traffic on PA 642 at or near the PA 642 / CSVT interchange. PA 642 provides east-west access to the town of Milton. Land use growth is forecast east of the interchange and may generate more traffic. Several intersections are currently controlled by a stop sign. These include the off-ramps from CSVT. The PA 642 and Turbot Avenue intersection is the key east-west signal into Milton. The signal may require traffic timing changes if significant traffic volumes changes occur. Other intersection control devices should be evaluated if intersection volumes increase. This interchange may also serve as a viable location for a rest area or amenities, which may create additional traffic demand.
- Recommendation Details: PennDOT District 3 can conduct a traffic signal warrant analysis if significant changes to traffic volume occur or if other safety issues are identified. Other intersection control options can also be assessed to address issues. Other land use changes included the addition of truck stops or other commercial amenities may impact the strategies and timing.
- Implementation:
    - Considerations: Support from SEDA-COG and local municipality in monitoring any issues that may be occur at this intersection. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes. Spot intersection turning movement counts could be conducted 1-2 years after roadway completion to assess changes to travel patterns.
    - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
    - Potential Funding Sources: GLG

TO-7	Intersection Improvements at PA 54/ Susquehanna Trail Intersection	Evaluate need for intersection control modifications at PA 54/Susquehanna Trail Intersection.	PennDOT District 3	$$	Short-term

- Issues/Concerns: The PA 54/Susquehanna Trail Intersection is currently controlled by a flashing yellow beacon. The local municipality has noted some current safety concerns at this intersection. Future development at this interchange and the completion of the CSVT may further increase traffic volumes in the vicinity of the intersection.
- Recommendation Details: PennDOT District 3 can conduct a traffic signal warrant analysis if significant changes to traffic volume occur and to evaluate current safety issues. It is recommended the intersection be analyzed in the short term as it has been noted as an existing safety concern. Other intersection control options can also be assessed to address issues. Other land use changes may impact the strategies and timing.
- Implementation:
    - Considerations: Support from SEDA-COG and local municipality in monitoring any issues that may be occur at this intersection. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
    - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
    - Potential Funding Sources: HSIP

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-8	Intersection Improvements on PA 405	Implement recommendations from the Muncy Area Corridor Management Plan on PA 405 including signal modifications and additional through/turn lanes	PennDOT District 3	$	Medium-Long Term

- Issues/Concerns: The I-180/PA 405 interchange is currently designed to support additional traffic volume growth. With the completion of CSVT, there is the potential for more regional through travel on I-180. This exit provides a significant number of amenities including restaurants. As a result, some increase in traffic volume may occur on PA 405 just east of the current interchange. The additional traffic may create need to adjust signal timings along the corridor and the possible addition of spot capacity improvements.
- Recommendation Details: Improvements should be coordinated with the recommendations from the *Muncy Area Corridor Management Plan*. PennDOT District 3 can conduct assessments to evaluate signal timing changes that are needed. It is not expected that additional traffic signals or turning lanes will be needed.
- Implementation:
  - Considerations: Support from Williamsport MPO and local municipality in monitoring any issues that may be occur along this corridor. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
  - Potential Funding Sources: HSIP; GLG

TO-9	Improvements on Lycoming Mall Drive and Lycoming Mall Road	Implement recommendations from Muncy Area Corridor Management Plan on Lycoming Mall Drive and Lycoming Mall Road including capacity and signal improvements	PennDOT District 3	$$$	Medium-Long Term

- Issues/Concerns: Significant development is expected near Exit 15 and Exit 17 of I-180. Based on the new development, traffic modeling projects significant increases to traffic on key roads in the vicinity of these two interchanges. The new development includes the expanded Geisinger facilities, expansion and repurposing of the Lycoming Mall, and the Lycoming Crossing. CSVT may increase corridor through travel in the corridor and result in more trips to these locations.
- Recommendation Details: The details of recommendations should be coordinated with the Muncy Area Corridor Management Plan. These enhancements may include signal modifications and capacity improvements on Lycoming Mall Road (SR 2049) and Lycoming Mall Drive.
- Implementation:
  - Considerations: Support from the local municipality in monitoring any issues that may be occur along this corridor. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - Support Partners: Williamsport MPO and municipalities
  - Potential Funding Sources: STP; GLG

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-10	US 220 Improvements	Spot safety improvements and shoulder widening along US 220 east of I-180 to Hughesville	PennDOT District 3	$$	Medium-Term

- Issues/Concerns: Traffic modeling indicates 10-20% growth in vehicle and truck travel on US 220 with the completion of the CSVT. Due to the increases in traffic and trucks, spot safety improvements may be required that may include shoulder widening or other capacity improvements.
- Recommendation Details: The details of recommendations will require more study and evaluation from local, regional and state planning partners. Recommendations may be coordinated with the long-term vision of the corridor and other improvements planned for other locations on US 220 outside the corridor.
- Implementation:
  - Considerations: Support from SEDA-COG and local municipality in monitoring any issues that may be occur along this corridor. This will include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes. Additional traffic counts may be needed 1-2 years after the CSVT completion to evaluate impacts on regional travel and truck travel patterns. Available origin-destination data may also support the evaluation.
  - Support Partners: Williamsport MPO and municipalities
  - Potential Funding Sources: STP

TO-11	CSVT Emergency Access	Evaluate improvements or other protocols to ensure emergency vehicles have access to incidents within the corridor	PennDOT District 3	$$	Short-Term

- Issues/Concerns: Stakeholders for the CSVT study have noted the importance of providing methods for emergency access vehicles to respond to incidents along the CSVT and I-180 corridor.
- Recommendation Details: Further evaluation is needed to determine strategies for emergency access vehicles to access key locations along the corridor. Strategies may include the design of emergency turn-around access points between exits or the application of other emergency management practices of responders.
- Implementation:
  - Considerations: Support from PennDOT District 3 and emergency providers to identify issues and potential strategies.
  - Support Partners: PennDOT District 3 as lead with support SEDA-COG and municipalities
  - Potential Funding Sources: TIP

TO-12	Regional Wayfinding	Develop a regional wayfinding initiative to enhance the visibility and promote visits to historic, shopping, dining, and recreation destinations in the study area.	SEDA-COG WATS MPO	$	5 years

- Additional Details: Construction of the CSVT will result in diversion of traffic that has historically traversed many of the study area's communities. Developing a regional wayfinding initiative will ensure travelers on the CSVT and within the study area's communities are aware of the historic, recreation, and commercial opportunities through a branding campaign to market the region.
- Support Partners: Susquehanna River Valley Visitors Bureau, Lycoming County Visitors Bureau
- Potential Funding Agencies/Sources: DCED/CFA Multimodal Transportation Program, PennDOT Multimodal Transportation Fund

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-13	Traffic Signal Upgrade and Replacement	Support funding needed for traffic signal improvement projects in the study area through PennDOT Green Light Go.	SEDA-COG WATS MPO	$	

- Additional Details: Many municipalities in the study area will be required to make traffic signal improvements as the result of CSVT construction. Supporting municipal funding requests will ensure municipalities can effectively improve and maintain signals. Municipalities identifying potential traffic signal upgrade projects that could be potentially funded through Green Light-Go:
  - Kelly Township
  - Loyalsock Township
  - Monroe Township
  - Shamokin Dam Borough
  - South Williamsport Borough

  PennDOT has reached out to all the preceding municipalities regarding potential projects using GLG funding.
- Support Partners: SEDA-COG, WATS MPO
- Potential Funding/Technical Assistance Sources: GLG

TO-14	Address Increasing Truck Travel in Communities Throughout the Study Area	Study the impacts of trucks travelling through several of the study area's communities and identify ways to mitigate impacts. Address trucking impacts with communities via improvements so the roadway network can safely accommodate all modes of transportation.	SEDA-COG	$	Near-term

- Additional Details: Several municipalities in the study area reported safety and congestion concerns with trucks travelling through their communities. Comprehensively assessing the issues throughout the study area will document concerns and lead to project prioritization:
  - Lewisburg Borough: Truck concerns are well documented in the 2019 Market Street Corridor Study prepared by Lewisburg Borough.
  - Selinsgrove and Penn Township have concerns with existing and future truck traffic exiting at Selinsgrove and travelling west on PA 522
  - Selinsgrove Borough is working on an ordinance to limit truck lengths; Milton Borough is working on an ordinance limiting parking along Mahoning Street (SR 642)
  - McEwensville Borough would like to assess ways to reduce truck speeds in the Borough.
- Support Partners: SEDA-COG
- Potential Funding/Technical Assistance Sources: PL funds; PennDOT Connects

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TO-15	Support Transportation Improvements to Improve Pedestrian and Vehicular Circulation	Support funding requests for the construction of roundabout and supporting pedestrian connections in Kelly Township to facilitate efficient movement of traffic near the US 15 corridor.	Kelly Township	$$$$	

- Additional Details: In 2017, Kelly Township assessed potential transportation improvements along the US 15 corridor. One of the projects identified included the installation of a roundabout and improved pedestrian connections at the intersection of JPM Road and Hospital Drive. The project will facilitate the efficient movement of traffic to/from Evangelical Community Hospital and development along the US 15 corridor. While the project has received funding, including DCED/CFA Multimodal Transportation Program funding in 2021, additional funding would ensure the project's successful completion. A roundabout is a good fit for the context of the area and will increase the intersection's capacity and minimize future crash severities.
- Support Partners: SEDA-COG
- Potential Funding Agencies/Sources: PennDOT Multimodal Transportation Fund

Transportation Enhancements (TE)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TE-1	Shamokin Dam Bike and Pedestrian Improvements	Implement bike and pedestrian strategies and recommendations from the Shamokin Dam Comprehensive Plan	Shamokin Dam Borough	$$	Medium-term

- Issues/Concerns: With the completion of the CSVT, it is anticipated that the US 15 will see significant reductions in traffic volume through Shamokin Dam. The reduction of traffic volumes provides opportunities to implement multi-modal transportation investments.
- Recommendation Details: The Shamokin Dam Comprehensive Plan provides recommended strategies to improve bike and pedestrian travel in Shamokin Dam.
- Implementation:
  - Considerations: Continue monitoring of traffic on US 15 with completion of CSVT. Evaluate strategies and develop design alternatives in coordination with PennDOT District 3 and MPO.
  - Support Partners: The municipality will serve as lead with support of SEDA-COG and PennDOT District 3
  - Potential Funding Sources: TA Set-aside

TE-2	Market Street Corridor Improvements	Work with sponsors of the Market Street Corridor Study in addressing improvement needs	Lewisburg Borough	$$	Medium-term

- Issues/Concerns: The CSVT is expected to affect regional travel patterns and access. These impacts will include changes to traffic volumes on PA 45 (Market Street) and US 15 in Lewisburg. The implementation of the recommendations from the Market Street Corridor Study will be important to ensure Market Street operates and supports the community vision. This will ensure the safety of vehicles, bikes and pedestrians in Lewisburg. The study has noted key issues along the Market Street corridor including truck traffic, safety for pedestrians and bicyclists, high travel speeds and noise levels.
- Recommendation Details: The Market Street Corridor Study provides a list of improvements to support the corridor vision and safety for all travelers in Lewisburg. Recommendations include the evaluation of truck prohibitions, signal timing, pedestrian crossings, reductions to speed limit, and other streetscape enhancements on Market Street.
- Implementation:
  - Considerations: Continue monitoring of traffic on PA 45 and US 15 with completion of CSVT. Evaluate strategies and develop design alternatives in coordination with PennDOT District 3 and MPO.
  - Support Partners: The municipality will serve as lead with support of SEDA-COG and PennDOT District 3
  - Potential Funding Sources: TA Set-aside
  - Note: Additional truck traffic on Market Street during the time of the study was impacted by detoured traffic from the Northumberland Duke St. Project. A speed study completed at the borough's request did not support lowering the speed limit. Moreover, truck crash statistics for Market Street (PA 45) do not support restricting trucks.

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
TE-3	Support Existing Transit Demonstration Projects and Reevaluate Fixed Route Service	Continue to support existing effort to expand shared ride, on demand, and microtransit services. Based on outcomes, reevaluate regional fixed route service in the future.	PennDOT SEDA-COG	$	5 years

- Additional Details: PennDOT and SEDA-COG have been working with rabbittransit on providing shared ride, on demand, and micro-transit services in Union, Snyder, Montour, Columbia, and Northumberland counties. Expanding transit services to a regional fixed route delivery model will be evaluated based on demand and ridership levels associated with current demonstration projects provided by rabbittransit.
- Support Partners: SEDA-COG, WATS MPO, additional partners to be identified.
- Potential Funding Sources: PennDOT Multimodal Transportation Fund; DCED/CFA Multimodal Transportation Program

Land Use (LU)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-1	Locations for Future Travel and Truck Rest Areas	Conduct further planning evaluations and coordination to identify potential locations for future rest areas along CSVT and I-180	Municipality	$	Medium-term

- Issues/Concerns: With the completion of the CSVT, it is anticipated that the corridor will experience more long-distance travel both for vehicles and trucks. Additional rest areas with amenities will be required to support regional travel.
- Recommendation Details: Additional planning efforts can be conducted to coordinate on the best locations for travel amenities or truck stops. Several exit locations have been identified for initial consideration. These include:
  - CSVT/Industrial Park Road (current industrial park and significant numbers of trucks highlight opportunity at this location)
  - CSVT/PA642 (potential development east of interchange may support future truck stop or rest area)
  - I-180 Exit 1 (vicinity to I-80 may support locations as viable for truck stop or rest area)
- Implementation:
  - Considerations: Regional and local municipalities will need to further evaluate needs and land availability within vicinity of primary exits.
  - Support Partners: SEDA-COG
  - Potential Funding Sources: PL

LU-2	US 15 and US 522 Traffic Calming and Corridor Re-envisioning	Plan for and implement traffic calming and "Complete Streets" approaches for US 15 in South Williamsport, Lewisburg, Shamokin Dam and Hummels Wharf and US 522 in Middleburg	Municipality	$$$	Long-term

- Issues/Concerns: With the completion of the CSVT, it is anticipated that the US 15 will see significant reductions in traffic volume through multiple communities from Hummels Wharf north to Williamsport. The reduction of traffic volume provides opportunities to implement strategies to support other modes of travel using a "complete streets" vision. Along PA 522, traffic calming in Middleburg may be required to limit the negative impacts on safety due to increasing truck travel.
- Recommendation Details: The SEDA-COG MPO and Lycoming County Planning Commission can work to engage municipalities in identifying a vision for these corridors. Improvements may focus on reduction of travel speeds, traffic calming measures, bike and pedestrian facilities and streetscape to improve the corridor value to the community.
- Implementation:
  - Considerations: Continue monitoring of traffic on US 15 with completion of CSVT. Evaluate strategies and vision with community stakeholders.
  - Support Partners: Support SEDA-COG and PennDOT District 3
  - Potential Funding Sources: PL

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-3	SEDA-COG CEDS Update	Incorporate data from the CSVT Impact Study into the SEDA-COG CEDS 2025 update.	SEDA-COG	$	4 years

- Additional Details: SEDA-COG's most recent Comprehensive Economic Development Strategy (CEDS) was completed in 2020 with the next 5-year update to be complete in 2025. Incorporating data from the CSVT Impact Study and economic focused recommendations from recommended corridor management plans into the CEDS will be useful in developing future actions for the 2025 CEDS update.
- Support Partners: SEDA-COG Counties and Municipalities
- Potential Funding Sources: Operating budget

LU-4	County Comprehensive Plan Updates	Incorporate data from the CSVT Impact Study into Lycoming, Northumberland, Union, and Snyder County comprehensive plans	County Planning Departments	$	County 10-year update schedule

- Additional Details: Lycoming County Comprehensive Plan Update (2017), Northumberland County Comprehensive Plan (2005), and Snyder County Strategic Comprehensive Plan (2001) each include reference to the CSVT. When comprehensive plan updates are due, incorporating current data from the CSVT project into each county's plan will be useful in adjusting existing county growth areas; modifying actions relative to protecting agricultural lands and environmentally sensitive areas; and determining future housing, commercial, industrial needs in proximity to the CSVT.
- Support Partners: Municipalities and economic development organizations in each county.
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

LU-5	Multi-Municipal Comprehensive Planning	Implement recommendations and/or update existing multi-municipal comprehensive plans within the study area. Develop new multi-municipal comprehensive planning partnerships to leverage municipal resources and addresses mutual goals and concerns.	County Planning Departments	$	Ongoing

- Additional Details: Several multi-municipal comprehensive plans have been developed in the study area and opportunities for additional multi-municipal comprehensive planning exists. Municipalities should review recommendations from previous plans and focus on implementation actions particularly those pertinent to the CSVT.

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-5A	Implement Lycoming County Multi-Municipal Comprehensive Plan Recommendations	Continue to implement projects identified in each multi-municipal comprehensive plan for the following planning areas: Greater Williamsport Alliance Planning Area, Montoursville-Muncy Planning Area, Muncy Creek Planning Area, and US-15 South Planning Area.	Planning Area Municipalities	$	0-3 years

- Additional Details: Lycoming County worked with municipalities in each planning area to update and adopt multi-municipal comprehensive plans in 2017. Each multi-municipal comprehensive plan identified several Implementation Strategies along with Priority Issues and Projects. Several projects have been implemented and municipalities should continue to work on project implementation, particularly the following projects which would help mitigate land use impacts and improve pedestrian and bicycle access when the CSVT is fully constructed. *(Note: A few of these projects are also referenced in subsequent recommendations.)*
    - Loyalsock Township: Establish a greenway and trail along Millers Run to connect the Susquehanna River Walk with Loyalsock Township's schools and recreation center.
    - Muncy Township: Develop John Brady Drive access controls per recommendations of the Muncy Area Corridor Access Management Plan.
    - Muncy Borough/Fairfield Township/Muncy Township: Complete the pedestrian/bike trail connecting the Montoursville Bikepath to the Lycoming Mall and Muncy Borough.
    - Muncy Borough/Muncy Creek Township: Consider a joint municipal zoning ordinance for Muncy Borough and Muncy Creek Township to regulate future growth in a cooperative manner.
    - Gregg Township (Union County): Complete the Allenwood/Montgomery Trail.
    - Gregg Township (Union County): Improve Access to the Susquehanna River.
- Support Partners: Lycoming County Planning & Community Development
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCNR Community Conservation Partnerships Program, DCED/CFA Act 13 Greenway, Trails and Recreation Program

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-5B	Northumberland County Multi-Municipal Comprehensive Planning	Develop a multi-municipal comprehensive plan for municipalities in northern Northumberland County and assess the 2009 Point Township/Northumberland Borough Comprehensive Plan for recommendation implementation.	Northumberland County Municipalities	$	0-3 years

- Additional Details: With the completion of the CSVT in Northumberland County, opportunities exist to develop new multi-municipal planning efforts and update an existing joint comprehensive plan. Multi-municipal comprehensive planning is beneficial to address mutual goals and concerns, leverage financial and staff resources, and position municipalities for future implementation funding opportunities. Comprehensive plans for several municipalities in the northern portion of Northumberland County were adopted between the 1970s and 1990s. Lewis Township and Turbotville Borough adopted a multi-municipal comprehensive plan in 2001 and West Chillisquaque updated its plan in 2020. Point Township and Northumberland Borough updated their joint comprehensive plan in 2009.
    - Develop a multi-municipal comprehensive plan through an intermunicipal cooperative agreement for municipalities in northern Northumberland County to include the Boroughs of Milton, Turbotville, and McEwensville; and the Townships of Delaware, East Chillisquaque, Lewis, and Turbot. Incorporate input from West Chillisquaque which recently completed a comprehensive plan update.
    - Assess recommendations from the 2009 Northumberland Borough and Point Township joint comprehensive plan and consider implementing recommendations that address future growth associated with completion of the CSVT such as but not limited to: updating Point Township zoning to plan for the CSVT interchange area around Ridge Road, developing access management standards for the Ridge Road, US 11, and PA 147 corridors and identifying locations for future road networks through adoption of an official map.
- Support Partners: Northumberland County Planning
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-5C	Snyder County Joint Comprehensive Planning	Develop a joint comprehensive plan for Monroe Township and Shamokin Dam Borough to address mutual goals and concerns, and leverage financial and staff resources.	Snyder County Municipalities	$	5 years

- Additional Details: The southern section of the CSVT will impact future land use patterns in both Shamokin Dam Borough and Monroe Township. While both municipalities updated their comprehensive plans in 2016, completing a multi-municipal comprehensive plan for the next 10-year update period (2026) will ensure the municipalities plan jointly for future land uses. Collaborative efforts will leverage financial and staff resources and position municipalities for future funding opportunities for implementation.
  - Develop a joint municipal comprehensive plan for Monroe Township and Shamokin Dam Borough.
- Support Partners: Snyder County Planning
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

LU-5D	Union County Multi-Municipal Comprehensive Planning	Review recommendations from the 2010 multi-municipal comprehensive plans prepared in conjunction with Union County Planning and Economic Development, prioritize, and continue to implement actions.	Union County Municipalities	$	5 years

- Additional Details: Multi-Municipal Comprehensive Plans were prepared for study area municipalities in the Central Planning Area and Eastern Planning Area. While a few actions have been implemented, there are opportunities to implement additional actions. A few actions are listed below, and thorough evaluation is suggested for current relevancy, municipal capacity, funding feasibility, and regional prioritization.
  - Implement comprehensive plan recommendations in the Eastern Planning Area (Lewisburg Borough and White Deer, Kelly, East Buffalo Township) such as, but not limited to: adopting access management ordinances to improve traffic flow and safety, adopting official maps to identify future locations for streets and sidewalks, implement multi-use trails, and revising parking regulations to reduce spaces and allow for shared parking.
  - Implement comprehensive plan recommendations in the Central Planning Area (Buffalo Township, Union Township) such as, but not limited to: adopting access management ordinances to improve traffic flow and safety, adopting official maps to identify future locations for streets and sidewalks, adopting municipal zoning, and determining the feasibility of central water and sewer in the Winfield Secondary Growth Area.
- Support Partners: Union County Planning and Economic Development
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-6	Preparation of Access Management Plans and Implementation of Existing Plans and Studies	Prepare access management plans along select corridors in the study area to address future access management and evaluate and continue to implement recommendations from existing access management plans and studies.	SEDA-COG WATS MPO	$125,000 per plan	5 years

- Additional Details: Use build out scenario data provided through the CSVT Impact study as a starting point to address access management along and near the corridors in the study area using PennDOT Publication 574 on Access Management. Continue to prioritize and implement recommendations from existing access management plans and studies.
    - US 522 Corridor Selinsgrove Borough, Penn Township: Prepare an access management plan from Selinsgrove Borough west through Penn Township to address access to US 522 via the Selinsgrove interchange, increasing truck traffic pressure on Selinsgrove Borough, and increasing development along the US 522 corridor in Penn Township.
    - Review, prioritize, and coordinate implementation of access management projects in Union County as identified in the following documents:
        - US 15 Smart Transportation Corridor Improvement Plan Implementation (2012, Lewisburg Borough, East Buffalo Township).
        - Market Street Corridor Study (2019, Lewisburg Borough).
        - HRG Identified Kelly Township Potential Improvements (2017, Kelly Township).
- Support Partners: Lycoming, Snyder, and Union County planning and economic development partners; municipalities along each corridor.
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program, others TBD

LU-7	Preparation of Corridor Master Plans	Prepare corridor master plans along select corridors in the study area to address future land use, development, and redevelopment opportunities when traffic is diverted to the CSVT.	SEDA-COG WATS MPO	$125,000 per study	5 years

- Additional Details: Develop corridor master plans to assess future land use and redevelopment opportunities along select corridors in the study area.
    - US 11/15 Corridor from Selinsgrove Borough north to Union and Northumberland Counties: Prepare a corridor master plan for the US 11/15 corridor to include Selinsgrove Borough, Shamokin Dam Borough, and Monroe Township to focus on redevelopment and revitalization opportunities in the corridor when a portion of traffic is diverted to the CSVT.
    - US 15 Corridor from South Williamsport, Lycoming County to Gregg Township, Union County: Prepare a corridor master plan to focus on development, preservation, and revitalization opportunities along the US 15 corridor when a portion of thru traffic is diverted to the CSVT (*Note: Top Viable Project under Priority Issue # 6 of the US-15 South Multi-Municipal Comprehensive Plan*).
- Support Partners: SEDA-COG; Lycoming, Snyder, and Union County planning and economic development partners; municipalities along each corridor.
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
LU-8	Transfer of Development Rights Programs	Consider implementing county-led Transfer of Development Rights programs to preserve agricultural land by shifting development toward locations around CSVT interchanges where more intensive development is planned	County Planning Departments	$	

- Additional Details: Several municipalities within the CSVT study area have updated their zoning ordinances to include or expand highway commercial and industrial zones, allowing for more intensive development to support anticipated CSVT growth. To further protect and preserve agricultural resources, counties and municipalities could implement a Transfer of Development Rights (TDR) program. By entering into Intergovernmental Cooperation Planning and Implementation Agreements enabled by the Municipalities Planning Code, development rights on agriculturally zoned land could be transferred to county growth areas near appropriately zoned CSVT interchanges. Counties and municipalities would adopt an ordinance to establish TDR Sending Overlay Districts (sending areas) and receiving areas located in specified zoning districts in proximity to CSVT interchanges. (*Note: Establishing municipal TDR programs was identified as a recommendation in the Northumberland County Comprehensive Plan, Snyder County Comprehensive Plan, and Union County Comprehensive Plan.)*
    - Convene a meeting with county planning officials to discuss the benefit of TDR programs as a tool to preserve farmland. Discuss the mechanics of a program, including identifying sending and receiving areas. Work with county commissioners and municipalities to determine the level of interest in implementing a TDR and a funding mechanism for program implementation and management.
- Support Partners: Municipalities; SEDA-COG; county planning departments
- Potential Funding/Technical Assistance Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

LU-9	Municipal Land Use Ordinance Updates and New Ordinance Development	Assist study area municipalities in updating land use documents and using new land use tools, maximizing multi-municipal approaches where amenable.	County Planning Departments, Study Area Municipalities	$	2 years

Recommendation	Description	Lead Entity	Estimated Cost	Timeframe

- Additional Details: Municipal outreach conducted as part of the CSVT Impact Study resulted in identifying several ordinance updates required to ready municipalities for CSVT completion. Multi-municipal recommendations are suggested to the maximum extent possible.
  - Study Area
    - Conduct ordinance reviews and suggest ordinance revisions to reduce parking requirements for the purpose of identifying shared parking strategies and facilitating redevelopment of excess parking areas for other uses. *(Note: Reducing parking requirements was identified as a strategy for Muncy Township as part of the 2017 Montoursville-Muncy Planning Area Comprehensive Plan.)*
  - Lycoming County
    - Muncy Borough, Muncy Creek Township: Continue intermunicipal cooperation to address infrastructure needs such as, but not limited to, stormwater, water, sewer, and electricity. (*Note: Joint zoning was recommended in the 2017 Muncy Creek Planning Area Comprehensive Plan.)*
  - Northumberland County
    - Lewis Township, Turbotville Borough: Consider re-establishing joint zoning to meet common land use needs and concerns in both municipalities.
    - Lewis Township: Consider incorporating a village center district in Lewis Township's zoning ordinance to address citizen concerns and provide a mix of residential and small-scale commercial uses along portions of PA 54.
    - Milton Borough: Adopt an ordinance limiting parking along Broadway Street (PA 642) in Milton Borough to improve safety along the corridor.
    - Point Township: Complete and adopt zoning ordinance revisions to address growth associated with CSVT completion and the Ridge Road interchange. *(Note: Underway and recommended in the 2009 Northumberland Borough-Point Township Joint Comprehensive Plan.)*
    - Point Township: Prepare and adopt an official map to plan for future transportation and recreational needs. *(Note: Recommended in the 2009 Northumberland Borough-Point Township Joint Comprehensive Plan.)*
  - Snyder County
    - Monroe Township: Update the Township's zoning ordinance to address growth associated with the Winfield interchange and future completion of the CSVT southern section. *(Note: An interchange overlay with Shamokin Dam Borough was considered but was not pursued.)*
    - Selinsgrove Borough: Support the development of an ordinance to limit the length of trucks travelling through the Borough to address safety and congestion. *(Note: Discussing with PennDOT District 3-0.)*
  - Union County
    - Kelly Township: Adopt an access management ordinance as recommended in the Eastern Planning Area Action Plan of the 2010 Union County Comprehensive Plan.
    - Kelly Township: Consider adopting an official map to identify future street and sidewalks for the West Milton Secondary Growth Area as recommended in the Eastern Planning Area Action Plan of the 2010 Union County Comprehensive Plan.
    - Union Township: Consider adopting municipal zoning consistent with the Union County Future Land Use Map and adopting an official map to plan for future growth in the Winfield Secondary Growth Area as recommended in the Central Planning Area Action Plan of the 2010 Union County Comprehensive Plan.
- Support Partners: County planning agencies, study area municipalities, SEDA-COG, WATS MPO
- Potential Funding Sources: PennDOT Connects Technical Assistance, DCED Municipal Assistance Program

Economic Development (ED)

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
ED-1	Infrastructure Expansion and Maintenance	Support the extension and installation of infrastructure such as water, gas, sewer, and stormwater in County Growth Areas and in appropriately zoned land near the CSVT corridor to facilitate economic growth.	Municipalities		
• Additional Details: Several infrastructure projects required to facilitate development in designated growth areas were identified during municipal outreach conducted as part of the CSVT Impact Study.					
ED-1A	Sewer line upgrade and maintenance in South Williamsport and Duboistown Boroughs	Support public funding requests for South Williamsport Borough and City of Williamsport to jointly complete upgrades to sewer lines throughout the municipalities.	South Williamsport Borough and City of Williamsport		
• Additional Details: South Williamsport Borough and Duboistown Borough work collaboratively to share municipal services and equipment. With future opportunities for local reinvestment due to diversion of truck traffic to the CSVT, the municipalities are in the process of upgrading sewer infrastructure. • Support Partners: South Williamsport Borough Public Works & Sewer Department, Duboistown Public Works • Potential Funding Agencies/Sources: DCED Municipal Assistance Program, PENNVEST, DCED/CFA PA Small Water and Sewer,					
ED-1B	Implementation of Eighth Street/Vincent Avenue sewer regionalization project	Support public funding requests and agency approvals for Delaware Township and Lewis Township to extend and install sewer infrastructure as part of the Eighth Street/Vincent Avenue Sewer Project.	Delaware Township, Lewis Township		0-3 years
• Additional Details: Delaware Township and Lewis Township are working jointly to extend sewer lines and upgrade capacity to facilitate planned growth near Interchange 12 (Watsontown North). Supporting public funding requests and agency approvals will ensure the infrastructure is in place to serve anticipated growth permitted through municipal zoning. • Support Partners: Northumberland County Planning • Potential Funding Agencies/Sources: DCED/CFA PA Small Water and Sewer, PennVEST, DEP					
ED-1C	Sewer Extension in Turbot Township	Conduct further planning evaluations and coordination to identify potential locations for future rest areas along CSVT and I-180	Turbot Township		3-5 years

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
• Additional Details: Turbot Township has funded and is conducting a feasibility study to examine the extension of sewer to extend initially to existing homes west of SR 147 near Interchange 15 (Milton, PA 642). Supporting feasibility study recommendations will provide sewer service to existing homes and ensure infrastructure is in place to serve anticipated growth permitted through updated municipal zoning which will be adopted in 2021. • Support Partners: Northumberland County Planning • Potential Funding Agencies/Sources: DCED/CFA PA Small Water and Sewer, PennVEST, DEP					
ED-1D	Sewer Extension in Kelly Township to support existing and future growth	Support public funding requests for a sewer line extension to serve existing homes and 47 acres of commercially zoned land for potential development near US 15.	Kelly Township		0-3 years
• Additional Details: Kelly Township is working to extend sewer capacity from the Kelly Township Municipal Authority pump station on Winter Farm Lane through a gravity fed sewer line connecting behind the Walmart property on US 15. The sewer line extension will serve existing homes along Ziegler Road and provide service to 47 acres of commercially zoned land adjacent to JPM Road, near US 15. • Support Partners: Kelly Township Municipal Authority, Union County Planning and Economic Development • Potential Funding Agencies/Sources: DCED/CFA PA Small Water and Sewer, PennVEST, DEP					
ED-1E	Consider conducting a central water and sewer feasibility study in Union Township	Consider conducting a study to determine the feasibility of installation of central water and sewer in the Winfield Secondary Planning Area to accommodate future CSVT growth.	Union Township	$	1-5 years
• Additional Details: A recommendation in the 2010 Central Planning Area Comprehensive Plan recommends Union Township determine the feasibility of central water and sewer in the Winfield Secondary Growth Area. • Support Partners: Union County Planning and Economic Development • Potential Funding Agencies/Sources: PennVEST, DEP					
ED-1F	Conduct a feasibility study to assess upgrades to	Conduct a feasibility study to assess upgrades to the sewer pump station in West Milton, a Secondary Growth Area in Kelly Township.	Kelly Township		5-10 years

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
	a sewer pump station in West Milton				
• Additional Details: West Milton in northern Kelly Township was identified as a Secondary Growth Area in Union County's 2010 comprehensive plan. The existing sewer pump station is not sufficiently sized to accommodate future sewage flows. Upgrading the pump station, which connects to the Kelly Township Municipal Authority treatment plant on Winter Farm Lane will support future planned development. • Support Partners: Kelly Township Municipal Authority, Union County Planning and Economic Development • Potential Funding Agencies/Sources: DCED/CFA PA Small Water and Sewer, PENNVEST, DEP,					
ED-1G	Support Implementation of MS4 Projects	Support the implementation of municipal stormwater management implementation projects in the CSVT study area to address Municipal Separate Storm Water System (MS4) requirements.	Municipalities		0-3 years
• Additional Details: Several municipalities within the study area are required to invest in stormwater management infrastructure to addresses federal Clean Water Act requirements administered by PA Department of Environmental Protection. Effectively implementing stormwater best management practices will ensure property in proximity to the CSVT is appropriately positioned for additional growth. Supporting municipal efforts to fund and implement projects will ensure municipalities within the study area can meet MS4 requirements. • Support Partners: • Potential Funding Agencies/Sources: DEP Growing Greener Plus					
ED-2	Redevelopment of Underutilized Properties	Support the redevelopment of underutilized properties throughout the study area by conducting feasibility studies, focusing on those properties that are potential developments of regional significance.			
• Additional Details: Several properties in the study area have been identified as potential opportunities for reinvestment and redevelopment and are in proximity to the CSVT. Positioning properties for redevelopment will facilitate reinvestment and generate tax revenues long term. (*Note: It is anticipated that additional properties will be identified as part of corridor master planning conducted under LU-7.)*					

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
ED-2A	Lycoming Mall Highest and Best Use Analysis	Conduct a Highest and Best Use Analysis for adaptive reuse of the Lycoming Mall	Muncy Township	$	0-3 years

- Additional Details: Evaluating the redevelopment potential of Lycoming Mall is necessary to determine the potential highest and best use the property and will be key to informing future land use ordinance updates to facilitate adaptive reuse. A highest and best use analysis would evaluate the property for uses that are legally permissible, physically possible, financially feasible, and most profitable. Future uses such as industrial, retail, housing, or mixed use would be considered and infrastructure including transportation, water, and sewer would be factored into the analysis.
- Support Partners: Lycoming County Planning & Community Development, Williamsport/Lycoming Chamber, Lycoming County Water and Sewer Authority
- Potential Funding Agencies/Sources: DCED/CFA

ED-2B	City of Williamsport Economic Development Study	Support the completion of an economic development study in the City of Williamsport to identify properties for future economic growth once the CSVT is complete.	City of Williamsport	$	0-3 years

- Additional Details: The City of Williamsport is commencing an economic development study concentrating on locations near I-180 to evaluate for redevelopment potential and highest and best use to support growth anticipated once the CSVT is completed. The study will assess redevelopment properties including Brownfield properties along the corridor.
- Support Partners: Lycoming County Planning & Community Development, Williamsport/Lycoming Chamber of Commerce
- Potential Funding Agencies/Sources: DCED/CFA

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
ED-3	Developing Connections – Sidewalks and Trails	Support the planning and implementation of sidewalk and trail connections throughout the study area including increased connections to the Susquehanna River, to promote economic and community growth.	SEDA-COG WATS MPO	$	5 years

- Additional Details: Many sidewalk and trail connections in various stages of planning and implementation were identified in the study area raised by stakeholders through the outreach process. These connections are documented in existing comprehensive plans and studies, and a few were identified during municipal outreach conducted as part of the CSVT Impact Study. Supporting the development and implementation of continued connections, including access to the Susquehanna River, will provide not only additional pedestrian and bicycle connections but also increased recreation and healthy lifestyle benefits for citizens in and visitors to the study area. Sidewalk and trail connections identified include:
  - Study Area:
    - Coordinate a review of needed water trail improvements in the study area (West Branch Susquehanna River Water Trail, Middle Susquehanna River Water, North Branch Susquehanna River Water Trail) with Susquehanna Greenway Partnership and Trail Sponsors to ensure Susquehanna River water trail opportunities are maximized.
  - Lycoming County
    - Loyalsock Township: Support construction of a bridge pedestrian bridge over Millers Run adjacent to E. 3rd Street in Loyalsock Township to complete the Millers Run Greenway project as identified in the 2017 Greater Williamsport Alliance Planning Area comprehensive plan. Costs to complete the Millers Run Greenway project are estimated at $2.7 Million.
    - Williamsport: Extend planned pedestrian connections from Susquehanna River Walk to locations in the City including Lycoming College and planned softball fields.
  - Northumberland County
    - Point Township, Northumberland Borough: Improve pedestrian and bicycle access throughout both communities, particularly opportunities to develop a trail along a former trolley bed and improve access to the Susquehanna River in proximity to the Ridge Road CSVT interchange. Specific studies conducted to assess recreational needs include: The Lake Augusta Study, The Ped - Bike Plan for the Point Township / Northumberland Borough, and the Liberty / Ice Dam Hollow Park Master Plan.
  - Snyder County
    - Penn Township: Improve trail connections between Susquehanna University west to East Snyder Park.
    - Selinsgrove Borough: Improve trail connections throughout the Borough and improve pedestrian and bicycle access across US 15 to the Isle of Que and the Susquehanna River.
  - Union County
    - East Buffalo Township, Lewisburg Borough: Improve pedestrian, bicycle, and trail connections throughout and between both municipalities, particularly along the US 15 corridor.
    - Lewisburg Borough: Complete trail connections near the Susquehanna River in proximity to Market Street (PA 45).
    - Kelly Township: Complete sidewalk improvements along JPM Road near US 15 to improve pedestrian access for employment and recreation as identified in a list of transportation improvements identified by Kelly Township in 2017.
- Support Partners: DCNR, SEDA-COG, WATS MPO, county planners, municipalities

Recommendation	Description	Lead Entity	Estimated Cost	Timeframe

- Potential Funding Sources: PennDOT Multimodal Transportation Fund; DCED/CFA Multimodal Transportation Program; DCED/CFA Act 13 Greenways, Trails and Recreation Program; DCNR Community Conservation Partnerships Program

Planning and Administration

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
PA-1	Maintain the CSVT Special Impact Study Management Team as an Implementation Task Force	After plan completion, reconvene the study's Management Team members in a new role as an Implementation Task Force. The Task Force would track the impacts of the CSVT project as it opens to traffic, update data as needed, and track progress of the study's implementation plan.	WATS MPO SEDA-COG	$50,000/yr.	Ongoing
• Additional Details: The new Implementation Task Force can begin meeting shortly after plan completion. Drafting a charter can establish the foundation of the Committee's new role and ensure all members are dedicated to working toward the same vision. The Task Force should provide liaisons to both MPO boards. It should be noted that this study report provides the best summary of what was known as of the date of its acceptance (November 2021). The Task Force will need to be flexible in its approach to implementation as changes unfold, post-CSVT. Task Force members will need to be responsive to emerging events that were unknown at the time of this report's adoption. • Potential Funding Sources: PennDOT Connects Technical Assistance; PL funding					
PA-2	Coordinate and Track Progress on the Implementation of Existing Studies	Coordinate and track progress implementing existing plans conducted in the study area, focusing on recommendations pertinent to the CSVT.	WATS MPO SEDA-COG	$	Ongoing
• Additional Details: Many comprehensive plans, corridor access management plans, and other studies have been conducted in the study area. Each document contains its own set of recommendations with implementation assigned to municipalities, counties, and other partners. Several of the recommendations are pertinent to impacts associated with the CSVT and have been implemented and some have not. SEDA-COG and WATS MPO should coordinate and track implementation progress and work with counties and municipalities to implement those pertinent to the CSVT. (Note: Several recommendations listed below as part of the CSVT Impact Study are identified in existing planning documents and studies.) • Support Partners: Study area counties, municipalities • Potential Funding Sources/Technical Assistance: Operating budgets, PennDOT Connects Technical Assistance; PL funding					

PA-3	Maintain the CSVT Special Impact Study Web Map	Maintain the CSVT Impact Study Web Map to ensure current data is available to support transportation, land use, and economic development planning and programming in the study area.	WATS MPO SEDA-COG	$	Ongoing

- Additional Details: Maintaining and adding to the existing information included in the CSVT Special Impact Study Web Map as a tool for regional partners will be beneficial to plan for and program future transportation, land use, and economic development projects. WATS MPO could host the tool online and provide access to regional partners to upload information.
- Support Partners: CSVT Management Team
- Potential Funding/Technical Assistance Sources: Operating budgets

Appendix A – Anticipated Study Area Land Developments

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
Lycoming	Muncy Twp	US 220/ I-180	Geisinger Medical Center	Institutional/ Hospital	120,000 sq. ft	Geisinger is developing a medical complex in Pennsdale, including a 3-story, 120,000 square foot hospital.	Under Construction
Lycoming	Muncy Twp	US 220/ I-181	Parcel Across from Geisinger	Commercial	N/A	The parcel directly across US 220 from the Geisinger development has some conceptual interest for future commercial development but nothing is firm.	Conceptual, no plans submitted
Lycoming	Brady Twp	US 15	Timber Run Property	Unknown	N/A	This property is a county-owned parcel that is frequently discussed as a potential development; however, no development plans have been submitted.	Conceptual, no plans submitted
Lycoming	Williamsport	I-180/US 15	Lycoming College Mixed Use Development	Mixed Use (Commercial and Residential)	N/A	Lycoming College is seeking proposals for mixed use, commercial/residential development on a couple parcels adjacent to campus.	No plans have been submitted - RFP currently out for development
Lycoming	Muncy Twp	I-180	Lycoming Mall and Outparcels -	Commercial	N/A	The Lycoming Mall property and its outparcels are regularly discussed as a	No redevelopment

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
			Redevelopment/Reuse Opportunity			redevelopment/reuse opportunity.	plans are in place at this time
Lycoming	Muncy Creek Twp	I-180	Industrial Parkway - Lot 11	Industrial	12,500 sq. ft.	According to the CoStar database, this site is best suited for industrial development with a cap of 12,500 square feet.	No plans have been submitted,
Lycoming	Muncy Twp	I-180	Bank Pad - Lycoming Mall Road	Commercial	4,100 sq. ft.	According to the CoStar database, this site is best suited for commercial development, notably a 4,100 sq. ft. bank.	No plans have been submitted,
Lycoming	Muncy Twp	I-180	Phase 2 - Lycoming Crossings Shopping Center	Commercial	65,000 sq. ft.	According to the CoStar database, this site is available for 65,000 square feet of retail development/expansion within the Lycoming Crossings shopping center.	No plans have been submitted,
Lycoming	Williamsport	I-180/US 15	2 Rose Street	Recreational	N/A	According to the CoStar database, this site is set for the construction of a baseball field in 2021.	Unknown
Northumberland	Delaware	SR 147	Moran Logistics	Industrial	43.16 acres	New distribution center along 8th Street Drive, between McEwansville and Turbotville interchanges	Under construction
Northumberland	Milton	SR 147	Milton Area Industrial Park	Industrial	173,000 sq ft	ARC Local Access Road project to improve Marsh Road and serve 145 acre parcel in Milton Area Industrial Park, zoned industrial and designated as KOZ, accessing 147 at Industrial	In Design (Roadway Project)

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
						Park Road interchange. Patton Logistics Group is planning to construct two industrial facilities at 143,000 and 130,000 square feet.	
Northumberland	Delaware and Lewis	SR 147	Turbotville Interchange	N/A	N/A	Local project to improve sewer and water utilities at Turbotville Interchange to support future development	In Design
Northumberland	Point	PA 147	River Run Foods Expansion	Industrial	14,569 sq. ft.	This development proposes an expansion of the existing River Run Foods facility.	Development plans have been reviewed and approved by Northumberland County.
Northumberland	Point	US 11	Northshore Railroad	Industrial	6.4 acres	This development proposes an addition to the existing Northshore Railroad facility and includes construction of a tank farm concrete pad for a future transload propane station.	Development plans have been reviewed and approved by Northumberland County.
Northumberland	West Chillisquaque	PA 147	NGI Enterprises	Residential (13 housing units)	N/A	NGI Enterprises is proposing an expansion to an existing mobile home park known as Astro Village North. The expansion would consist of an additional 13 mobile homes, along with related roadway, utility, and stormwater infrastructure.	Development plans have been reviewed and approved by Northumberland County.

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
Northumberland	Milton	PA 147	Pinpoint Federal Credit Union	Commercial	4 Acres	Pinpoint Federal Credit Union is proposing a new commercial building along with other site amenities.	Development plans have been reviewed and approved by Northumberland County.
Northumberland	Delaware	I-80/I-180	Keystone Valley Properties	Commercial/Agricultural	50.78 Acres	Keystone Valley Properties is proposing a 5 lot subdivision and a side yard addition.	Development plans have been reviewed and approved by Northumberland County; however, no development is anticipated to take place.
Northumberland	Lewis	PA 44/PA 54	Watson Excavating, Inc.	Commercial	42,689 sq. ft.	Watson Excavating is proposing the construction of a new office building.	Development plans have been reviewed and approved by Northumberland County.
Northumberland	Lewis	PA 44	Renewal Processing, inc.	Industrial	546,242 sq.ft.	Renewal Processing is proposing the construction of a canopy, a building addition, truck port, and stormwater infrastructure.	Development plans have been reviewed and approved by Northumberland County.

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
Snyder	Monroe Twp	US 15	9th and Old Trail Road	Commercial	19,600 sq. ft.	According to the CoStar database, this site is available for 19,600 square feet of commercial retail development.	No plans have been submitted, CoStar recommends this as the best use for the property.
Union	White Deer	US 15	Silver Moon Hills	Residential (63 housing unit6s)	N/A	63 single family homes off of Milroy Road (T-486); Build out likely wouldn't start until 2022	Under review by White Deer Township
Union	White Deer	US 15	GAF Plant 2	Industrial	400,000 sq.ft.	400,000 sq. ft. plant off of SR 1011 (Old Route 15)	Under construction
Union	Gregg	US 15	Allenwood Commercial Development	Commercial	8,000 sq. ft.	8,000 sq. ft commercial development at the US 15/PA 44 intersection in Allenwood	Under construction
Union	Gregg	US 15	Snappy's	Commercial	5,100 sq. ft.	5,100 sq. ft. convenience store on 7 acres south of Clyde Peeling's Reptiland with proposed right in access from US 15 and full access on Russell Road (T-429); Construction scheduled for 2021	In design
Union	Gregg	US 15	17890 Russell Road, LLC (Great Stream Commons)	Industrial	400,000 sq. ft.	400,000 sq. ft industrial development with access off of Russell Road (T-429); Preliminary site planning is underway and construction is expected to begin in 2021-2022.	Land purchased in 2020, in design

County	Municipality	Corridor	Name	Type	Square Footage	Description	Status
Union	Gregg	US 15	Moran Logistics Park	Industrial	300,000 - 400,000 sq.ft.	300,000 - 400,000 sq. ft. of industrial development with construction planned for Spring 2021. The facility proposes access off of Russell Road (T-429). The future site plan proposes two additional buildings, totalling 800,000 sq. ft., to be reviewed/constructed at a later date.	Land development planning and site work in Fall 2020
Union	Kelly	US 15	Evangelical Prime	Institutional/Hospital	112,000 sq.ft.	This expansion of Evangelical Community Hospital, known as the PRIME (Patient Room Improvement, Modernization, and Enhancement) project, will add a four-story addition to the front of the hospital. Access will include US 15, Hospital Drive (SR 1005) and Loan Drive (T-401).	Under construction with an expected completion date of May 2021