

## Introduction

Per the April 5, 2011 directive from the Federal Highway Administration (FHWA), the Planning and Environmental Linkages "... questionnaire is intended to act as a summary of the Planning process and ease the transition from planning to a National Environmental Policy Act (NEPA) analysis. ... This questionnaire is consistent with the 23 CFR 450 (Planning regulations) and other FHWA policy on Planning and Environmental Linkage (PEL) process."

## PEL Questionnaire

### 1. Background:

#### a. Who is the sponsor of the PEL study?

The Pennsylvania Department of Transportation (PennDOT) is the project sponsor and the FHWA is the lead federal agency for this PEL Study.

#### b. What is the name of the PEL study document and other identifying project information (e.g., sub-account or STIP numbers, long-range plan, or transportation improvement program years)?

The official PEL document is called the *State College Area Connector Planning and Environmental Linkages (PEL) Study*. The State College Area Connector is identified in the:

- **Centre County Long Range Transportation Plan 2050 (September 2020)**  
The State College Area Connector was identified as one of the highest priority projects for the Centre County Metropolitan Planning Organization (CCMPO) and officials in Centre and surrounding counties.
- **Transportation Improvement Program**  
The State College Area Connector is included in the *2023-2026 Centre County Transportation Improvement Program* and the *2023 Statewide Transportation Improvement Program*.  
The 2023-2026 TIP includes \$15 million in discretionary funds for the State College Area Connector. Funding is provided for the Preliminary Engineering and Final Design phases.
- **2021 Pennsylvania 12-Year Program (August 2020)**  
The State College Area Connector is identified as MPMS No. 112784
- **Centre County Unified Planning Work Program (November 2021)**  
The State College Area Connector is identified as a Project Delivery - Key Project in the Fiscal Year 2022-2024 Centre County Unified Planning Work Program

#### c. Who was included on the study team?

##### Federal Highway Administration

- Camille Otto – Deputy Division Administrator
- Julia Moore – Senior Environmental Specialist
- Andrea Ebur – Climate and Resilience Programs Manager

- Jeff Engle – Operations/Safety Engineer
- Mark Hammert – Transportation Engineer
- Matt Smoker – Transportation Specialist
- Gene Porochniak – Community Planner
- Veronica Feliciano – Transportation Engineer/Grants Coordinator

#### **Pennsylvania Department of Transportation**

- Thomas Zurat – former District Executive
- Tom Prestash – District Executive
- Dean Ball – Assistant District Executive for Design/Project Manager
- Eric Murnyack – Assistant Project Manager
- Chris Peacock – Environmental Manager
- Dean Roberts – Transportation Planning Manager
- Frank Hampton - Transportation Planner
- Bryon Ruhl – Natural Resource Specialist
- Drew Ames – Division Chief
- Brian Hare – Program Center, Bureau Director
- Nicole Auker – Environmental Supervisor
- Don Burden – Cultural Resource Specialist
- Robert Weed – Former Environmental Manager
- Mithun Patel – Project Development Engineer
- Ryan Vankirk – Project Development & Lettings Section Chief
- Marla Fannin – Former Community Relations Coordinator
- Tim Nebgen – Community Relations Coordinator
- Joy Gaylor – Former Right of Way Administrator
- Scott Schaffer – Archaeologist

#### **Design Management Team**

- Kevin James – Michael Baker International
- Dennis Plitt – Michael Baker International
- Barry Schoch – KCI Engineering
- Deb Hoover – KCI Engineering
- Kate Farrow – NTM Engineering
- Gretchen Yarnall – NTM Engineering

#### **Project Design and Environmental Team**

- Matt Nulton – Project Manager – JMT
- Lori Cole – Deputy Project Manager/PEL Manager – JMT
- Michelle Keller – Environmental Specialist - JMT
- Bradley Marstellar – Traffic Engineer – JMT
- Cameron Abedi – Traffic Engineer – JMT
- Hussain Khan – Traffic Engineer – JMT
- Mary Alfson Tinsman – Historian – JMT
- Christine Leggio – Historian – JMT
- Kerry Henneberger – Larson Design Group

- Jason Jackson – Design Engineer – Larson Design Group
- Mindy Bower – Environmental Specialist – Skelly and Loy
- Alyssa Lynd – Environmental Specialist – Skelly and Loy
- Eric Bruggeman – Environmental Specialist – Skelly and Loy
- Paul DeAngelo – Environmental Specialist - Skelly and Loy
- Al Dunay - Environmental Specialist - Skelly and Loy
- Logan Zugay - Environmental Specialist - Skelly and Loy
- Jim Sinclair - Environmental Specialist - Skelly and Loy
- Lauren Tilley - Environmental Specialist - Skelly and Loy
- Brad Reese - Environmental Specialist - Skelly and Loy
- Bill Kaufell - Environmental Specialist - Skelly and Loy
- Doug Meneely - Environmental Specialist - Skelly and Loy
- Sandee Launch – Public Involvement Specialist – Quest
- Lisa Lawrence – Public Involvement Specialist – Quest
- Robert Leonard – Design Engineer – Erdman Anthony
- Dave Kozel – Design Engineer – Erdman Anthony
- Chad Martin – Design Engineer – Former Erdman Anthony
- Suresh Gutta – Geotechnical Engineer – AGES, Inc.
- Mike Davidson – Traffic Engineer – Drive Engineering

**d. Provide a description of the existing transportation facility within the corridor, including project limits, modes, functional classification, number of lanes, shoulder width, access control and type of surrounding environment (urban vs. rural, residential vs. commercial, etc.)**

The State College Area Connector PEL Study is approximately 70 square miles, extends through the southern portion of Centre County, and includes all or parts of six municipalities: Centre Hall Borough and Potter, Spring, Harris, College, and Benner Townships. The study area includes key transportation routes that provide access to regional destinations and beyond via major routes such as U.S. Route (US) 322, Pennsylvania Route (PA) 144, PA 45, and Interstate 99 (I-99) which, in turn, provide access to nearby I-80. The table below summarizes the main study area roadway characteristics. The study area is also shaped by the topography of the area and primarily encompasses the southwestern portion of Penns Valley that extends between Nittany Mountain to the north and the Seven Mountains area of the Tussey Mountain range to the south. Parts of Nittany Valley on the north side of Nittany Mountain are also included within the study area, as is the more urbanized Centre Region that connects both valleys at the southwestern end of Nittany Mountain. The limits of the study area boundary were defined to ensure that any relevant factors that may influence the study needs (and the development of the range of alternatives that would address these needs) are incorporated, including identification of logical project termini (US 322 Mount Nittany Expressway and Potters Mills Gap and I-99), assessment of environmental impacts, and development of potential mitigation.

Federal Functional Classification	Centre County Roadways	Number of Lanes/ Access Control/Shoulders	Environment
Interstate Highway	I-80, I-99	4 access-controlled lanes with varying shoulder widths	Urban and Rural Environments
Other Freeways and Expressways	US 322 (Mount Nittany Expressway)	4 access-controlled lanes with varying shoulder widths	Urban Environment
Other Principal Arterial Highways	US 322/Business US 322, PA 144, PA 26	2 lanes with no access control and varying shoulder widths	Predominately Rural Environment
Minor Arterial	PA 45	2 lanes with no access control and varying shoulder widths	Predominately Rural Environment
Major Collector	PA 192, SR 3010 (Boalsburg Road/Warner Boulevard), SR 2006 (Linden Hall Road)	2 lanes with no access control and varying shoulder widths	Urban and Rural Environment
Minor Collector	SR 2006 (Brush Valley Road/Rock Hill Road), SR 2010 (Georges Valley Road)	2 lanes with no access control and varying shoulder widths	Rural Environment
Local Roads	SR 2004 (Linden Hall Road/Cedar Run Road), SR 2001 (Bear Meadows Road)	2 lanes with no access control and varying shoulder widths	Rural Environment

**e. Provide a brief chronology of the planning activities (PEL study) including the year(s) the studies were completed.**

Prior to initiation of the PEL Study, several studies and improvements were conducted. These included:

- **South Central Centre County Transportation Study (SCCCTS)**

SCCCTS was initiated in 1998 to evaluate and address transportation needs along the US 322, PA 144, and PA 45 corridors. The SCCCTS project needs identified specific transportation problems in each of the three corridors and on the local road system, as well as needs associated with regional travel patterns. The regional travel pattern need statement addressed the high percentage of through trips (in particular the high volume of truck traffic), high crash rates (including fatalities), poor Level of Service (LOS) including LOS associated with heavy truck traffic and increases in travel demand associated with local and regional planned development. However, SCCCTS was terminated in 2004 due to funding shortfalls.

- **Safety Improvements**

Following the termination of SCCCTS in 2004, short-term safety improvements along the US 322, PA 144, and PA 45 corridors were conducted between 2006

and 2015. These improvements included general intersection improvements (e.g., turn lanes), safety improvements (e.g., safety dot warning pavement markings, removal of passing zones), minor roadway realignments, and bridge reconstruction. These improvements were initiated to address some of the safety concerns identified during the SCCCTS study.

- **Potters Mills Gap (PMG) Transportation Project**

PennDOT and FHWA initiated the PMG Transportation Project to improve a 3.75-mile long section of US 322 in Potter Township within the area locally known as “Potters Mills Gap”. This project area encompassed the southeastern portion of the SCCCTS study area. It was determined that this project had independent utility and addressed a defined purpose and need. The project included the construction of a new limited access four-lane roadway section that started at the Sand Mountain Road intersection and extended west, tying back into existing US 322 with a new interchange and roundabout, west of the PA 144/US 322 intersection.

- **SCCCTS Data Refresh**

In 2018, PennDOT collected data to update the traffic and environmental information from the former SCCCTS (2004), to identify changes to travel patterns, the transportation network, and environmental conditions. This information supported the 2019 decision by state officials to restart efforts to address regional transportation needs in the US 322, PA 44, and PA 45 area. Nearly, \$15 million in state funding was allocated to advance the State College Area Connector Study.

- **State College Area Connector Study PEL**

In 2020, the State College Area Connector Study PEL Study was initiated. During a three-year process, environmental data was collected, alternatives identified and evaluated, and public outreach conducted to develop a PEL Report that was released publicly in April 2023. The Final PEL Report findings were accepted by the Cooperating Agencies in July 2023 and the Report is awaiting final acceptance by FHWA.

**f. Are there recent, current, or near future planning studies or projects in the vicinity? What is the relationship of this project to those studies/projects?**

There are no funded recent, current, or near future planning studies or projects in the vicinity.

**2. Methodology used:**

**a. Did you use NEPA-like language? Why or why not?**

Yes, NEPA-like language was utilized while preparing the State College Area Connector PEL Study to support the NEPA phase of project development.

**b. What were the actual terms used and how did you define them? (Provide examples or list)**

The PEL Report provided a Glossary of Terms that provided key terms along with a definition used throughout the PEL Study. Examples of terms in the glossary include:

- **Community Resource** – A broad term used to identify facilities that are used by local communities and include schools, places of worship, emergency services facilities, libraries, parks and recreation facilities, and museums.
- **Cultural Resource** - A broad term that is used to cover architectural, cultural, and archaeological resources. Cultural resources include bridges, buildings, archaeological sites, cemeteries, sacred or religious landmarks, agricultural sites and landscapes, and historical objects such as sculptures and roadside markers.
- **Congestion** – The level at which transportation system performance is no longer acceptable due to traffic interference. The level of acceptable system performance may vary by type of transportation facility, geographic location (metropolitan area or subarea, rural area) and/or time of day.
- **Natural Resources** – Land, fish, wildlife, air, water, and other natural assets belonging to, maintained by, or otherwise regulated by federal, state, or local governments.
- **Range of Alternatives** – Different transportation solutions that can be considered in environmental and engineering studies to address the transportation purpose and needs within a defined geographic area.
- **Resource Agencies** – Federal, state, and local agencies that have regulatory oversight of features (e.g., wetlands, farmland, zoning, historic structures).
- **Study Need** – The study needs are statements that identify and document specific transportation problems or issues within a defined area. The need statements provide the foundation for the study to identify potential alternatives that can be evaluated to address the transportation problems. The needs are typically based on technical information and analyses.
- **Study Purpose** – A broad statement of the overall goals or objectives to be achieved by a proposed transportation improvement.

**c. How do you see these terms being used in NEPA documents?**

These terms used in the PEL Study are consistent with prevailing guidance and regulations including TA6640.8A<sup>1</sup> and will be used, as appropriate, in the NEPA documents.

**d. What were the key steps and coordination points in the PEL decision-making process? Who were the decision-makers and who else participated in those key steps?**

The PEL Study included a seven-step process:

Step 1 collected environmental, engineering, and traffic data to provide a foundation for use in future steps.

Step 2 analyzed the collected data to identify the challenges on the existing transportation system.

Step 3 documented transportation challenges by developing the purpose and need statement that would be used to identify and evaluate a Range of Alternatives.

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<sup>1</sup> FHWA Technical Advisory T6640.8A dated October 30, 1987

[https://www.environment.fhwa.dot.gov/legislation/nepa/guidance\\_preparing\\_env\\_documents.aspx](https://www.environment.fhwa.dot.gov/legislation/nepa/guidance_preparing_env_documents.aspx)

Step 4 analyzed the alternatives to determine the transportation system benefits/issues and their associated potential natural, cultural, and socio-economic impacts.

Step 5 identified alternatives to advance for further evaluation in future environmental and engineering studies.

Step 6 documented the results of the PEL Study and developed an implementation plan for future studies or projects.

Step 7 finalized the PEL Study report and received study concurrence from the FHWA.

Public and agency engagement involvement extended throughout the entire PEL process. Engagement took many forms throughout the PEL Study including a website, electronic mailing list, local pop-up meetings, public meetings, stakeholder workshops, public officials' meetings, and resource agency coordination meetings. Four public meetings, one virtual and three in-person, were held during the PEL Study process in October 2020, September 2021, April 2022, and October 2022. These meetings occurred at major milestones in the PEL process.

Decision-makers included in the PEL Study process included PennDOT and FHWA with input from participating and cooperation agencies and the public. Four agencies (included U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and the PA Department of Environmental Protection (Northcentral Region) were concurring cooperating agencies. These agencies provided concurrence on study purpose and need, range of alternatives to be considered in the PEL, and alternatives to advance for NEPA study.

**e. How should the PEL information be presented in NEPA?**

The State College Area Connector PEL Study would be discussed and summarized in future NEPA studies. The PEL Study provides the starting basis for the proposed corridor alignments and provides supporting documentation for the identification, avoidance, and minimization of impacts by the proposed project. It also provides a foundation for continued public and agency involvement activities.

**3. Agency coordination:**

**a. Provide a synopsis of coordination with Federal, tribal, state and local environmental, regulatory and resource agencies. Describe their level of participation and how you coordinated with them.**

PennDOT holds monthly Agency Coordination Meetings (ACM) and field views for projects and studies across the Commonwealth. Transportation projects and studies can be placed on the agenda by request to PennDOT's Central Office. Federal and state resource agencies have a standing invitation to the ACMs. For the PEL Study, special invitations to attend the ACM were provided to local agencies and federally Recognized Tribes that requested participating agency status. In total, 14 ACM were held during the PEL process. Additionally, a field view and special meetings were held with the Cooperating Agencies to discuss detailed questions on concurrence points. The lead federal agency for the PEL Study is the FHWA and cooperating agencies included U.S. Army Corp of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and the PA Department of Environmental Protection (Northcentral Region). Concurrence in writing was sought from cooperating agencies at specific concurrence

points during the PEL Study. Participating agencies (Federal, state, tribal, regional, and local government agencies that have an interest in the project) that formally accepted the invitation to participate in the PEL Study included PA Fish and Boat Commission, PA Historical and Museum Commission (PA State Historic Preservation Office), PA Game Commission, Centre County Board of Commissioners, Harris Township Board of Supervisors, College Township Council and Seneca Nation of Indians. Each participating agency was presented with the same information as the Cooperating Agencies and could provide input at or immediately following the ACM.

**b. What transportation agencies (e.g. for adjacent jurisdictions) did you coordinate with or were involved during the PEL study?**

The transportation agencies involved in the PEL Study were PennDOT, the lead state agency, and FHWA, the lead federal agency. The study area and all areas adjacent to the study area are within PennDOT jurisdiction. Coordination was also completed with the local municipalities to discuss their roadway network.

**c. What steps will need to be taken with each agency during NEPA scoping?**

Coordination with each of these entities would continue during the NEPA process.

**4. Public coordination:**

**a. Provide a synopsis of your coordination efforts with the public and stakeholders.**

**Study Website** – A study specific website

(<https://www.penndot.pa.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Pages/default.aspx>) was developed to keep the public informed during the study. The website includes general information on the Study, study area maps, the PEL schedule, public and agency outreach information, frequently asked questions, comment page, and notifications of upcoming public meetings were posted on the website. Prior to public meetings, the display boards were available on the website and summaries were added after each meeting. A key feature of the website was the Study WebMap – an interactive map depicting natural, cultural, and socio-economic data along with the Study alternatives.

**Pop-Up Meeting** – PennDOT hosted a booth at the 2021 Centre County Grange Fair. Fair attendees were provided study information, encouraged to sign up for the mailing list, and invited to the September 2021 public meetings.

**Public Meetings** – Four public open house meetings were held as outlined in the table below.

**Public Official Meetings** – Prior to each public meeting, a public officials meeting was held to review the meeting materials in advance and address questions and comments. In addition, 13 additional meetings were held with the various municipalities throughout the PEL process.

Meeting Date	Meeting Location	Meeting Topic	Attendance
October 28, 2020 – November 4, 2020	Virtual via Study Website	- Transportation Development Process, - SCAC PEL process - Study Area - Environmental Resources - Engineering and Traffic Data - Study Purpose and Needs	78



Meeting Date	Meeting Location	Meeting Topic	Attendance
September 21 and 22, 2021	Wyndham Garden Hotel Boalsburg, PA	<ul style="list-style-type: none"> <li>- PEL Study process</li> <li>- Range of Alternatives</li> <li>- Preliminary Upgrade Existing and Build Alternatives</li> <li>- Alternative Screening Process</li> <li>- Preliminary Environmental and Traffic Analysis</li> </ul>	859
April 5 and 6, 2022	Calvary Church Boalsburg, PA and Centre Hall Fire Station Centre Hall, PA	<ul style="list-style-type: none"> <li>- Update on the PEL Study Environmental Data Collection Efforts</li> <li>- Traffic Analyses</li> <li>- Upgrade Existing and Build Alternative Corridor Refinements</li> </ul>	859
October 19 and 20, 2022	Mount Nittany Middle School Boalsburg, PA	<ul style="list-style-type: none"> <li>- Overview of the PEL Study</li> <li>- Draft Recommendations for Alternatives to advance into the NEPA process</li> <li>- Update on the PEL Study Environmental Data Collection Efforts</li> <li>- Traffic Analyses</li> <li>- Formal Presentation of meeting materials followed by a question and answer session.</li> </ul>	502

**5. Purpose and Need for the PEL study:**

**a. What was the scope of the PEL study and the reason for completing it?**

This PEL Study was conducted to identify and assess transportation challenges within the study area to provide a foundation for the development and evaluation of a range of alternatives.

**b. Provide the purpose and need statement, or the corridor vision and transportation goals and objectives to realize that vision.**

The purpose of this study is to develop and evaluate a range of alternatives to improve mobility and meet the needs of interstate, regional, and local traffic passing through and moving within the study area by reducing congestion, improving safety, and addressing system continuity with consideration for all modes.

The need was determined through an evaluation of the transportation network which identified the following deficiencies in the study area:

- Existing roadway configurations and traffic conditions contribute to safety concerns.
- High peak hour traffic volumes cause congestion and result in unacceptable Level of Service (LOS) (LOS D [rural only], E, or F) on US 322, PA 45 and PA 144 roadways and intersections within the study area.
- The roadway network configuration in the study area lacks continuity and does not meet driver expectations.

**c. What steps will need to be taken during the NEPA process to make this a project-level purpose and need statement?**

The purpose and need developed for the PEL Study is intended to be directly transferable to any future project-level purpose and need statement. It is anticipated that the supporting documentation will be updated with new information that is refined to the NEPA study area.

**6. Range of alternatives: Planning teams need to be cautious during the alternative screen process; alternative screening should focus on purpose and need/corridor vision, fatal flaw analysis, and possibly mode selection. This may help minimize problems during discussions with resource agencies. Alternatives that have fatal flaws or do not meet the purpose and need/corridor vision will not be considered reasonable alternatives, even if they reduce impacts to a particular resource. Detail the range of alternatives considered, screening criteria, and screening process, including:**

**a. What types of alternatives were looked at? (Provide a one or two sentence summary and reference document.)**

Six alternative concepts are considered in this PEL Study: No Build Alternative, Upgrade Existing Alternative, Transportation Control Measures (TCM) Alternative, Transportation System Management (TSM) Alternative, Public Transportation Alternative, and Build Alternative. These alternatives were systematically screened on their ability to meet the identified study purpose and need, minimize environmental impacts, engineering feasibility, and best achieve the project goals. Any alternative determined to not meet the purpose and need was dismissed from further consideration as a reasonable alternative. See the *Alternatives Analysis and Screening Report for the State College Area Connector Planning and Environmental Linkages Study* (February 2023) for more information on the alternatives considered and the screening process.

**b. How did you select the screening criteria and screening process?**

Fundamental study goal concepts that support the purpose and need, local transportation and land use planning, transportation mobility, best engineering practices, and environmental stewardship were used as a guide to qualitatively assess the alternatives. The goal concepts were formulated as a series of questions which were assigned a relative value for alternative comparison purposes. The PEL Study screening process consisted of a Level 1 Screening, Level 2A Screening, and Level 2B Screening.

Level 1 Screening used two types of screening. The first screening determines qualitatively if the alternative would meet the study need. The second screening includes an evaluation on how well the alternatives addressed the study goals. Goal screening was only conducted for those alternatives that would meet the study need. Both the first and second screenings were completed by answering a series of questions for each alternative.

Level 2 Screening was divided into two parts: Level 2A and Level 2B Screening. Level 2A Screening confirmed that the alternative generally reduces traffic on the existing study area roadway network. Level 2B Screening further developed the conceptual alternatives and provided a comparative analysis for planning, engineering, and traffic factors, and potential environmental impacts to determine which alternative best met the purpose and need while balancing these factors.

**c. For alternative(s) that were screened out, briefly summarize the reasons for eliminating the alternative(s). (During the initial screenings, this generally will focus on fatal flaws.)**

The No Build, TCM Alternative, TSM Alternative, and Public Transportation Alternative were dismissed in Level 1 of the screening process for not meeting the identified purpose and need of the PEL Study.

The US 322 Upgrade Existing and Build Alternatives were advanced through the Level 2A Screening and into Level 2B Screening for more detailed analysis. In the Level 2B Screening, conceptual engineering was developed for the US 322 Upgrade Existing Alternative, six US 322 Build Alternative corridors, and three PA 144 Build Alternative corridors. These alternatives were evaluated and compared from a traffic, engineering, environmental, and planning perspective. Alternatives dismissed during the Level 2B Screening and the reasons for eliminating the alternatives are summarized below:

- US 322 Upgrade Existing Alternative – did not improve safety on the overall roadway network therefore, it did not meet the PEL Study purpose and need.
- US 322-2 Build Alternative – dismissed from further consideration based on the environmental, engineering, and planning screenings. It would have higher potential impacts on three of the five comparative regulatory resources evaluated and would be the most impactful to productive agricultural lands.
- US 322-3 Build Alternative – dismissed from further consideration based on the environmental and planning screenings. It would have higher potential impacts to three of the five comparative regulatory resources evaluated; higher comparative impacts productive agricultural lands; the highest number of potential residential relocations; and higher comparative impacts on the Penns Valley/Brush Valley Rural Historic District, a protected Section 4(f) resource.
- US 322-4 Build Alternative – dismissed from further consideration based on the environmental, engineering, and planning screenings. It would have higher potential impacts on three of the five comparative regulatory resources evaluated; the highest impact on Rothrock State Park and Stone Mountain Important Bird Area; and would impact the only remaining industrially zoned land in Harris Township.
- PA 144 Build Alternatives (PA 144-1, PA 144-2, and PA 144-3) – dismissed from further study as a family of alternatives, as they are closely linked. They were dismissed from further consideration based on the environmental, engineering, and planning screenings. Environmentally, these alternatives would have higher potential impacts in four or five of the comparative regulatory resources evaluated. They would have higher comparative impacts on regulated Waters of the US; the highest impacts on the area bat swarming habitat; and impacts to productive agricultural land; impact water protection zones and impact the Centre Airpark. PA 144-1 and PA-144-2 would have comparatively higher impacts to Section 4(f) resources. From an engineering perspective the three alternative corridors have longer distances, significantly higher excavation volumes, and higher planning-level total cost estimated.

For more detailed information on the alternatives screen out and the reasons for eliminating alternatives, please see the *Alternatives Analysis and Screening Report for*

*the State College Area Connector Planning and Environmental Linkages Study*  
(February 2023).

**d. Which alternatives should be brought forward into NEPA and why?**

When balancing the overall traffic, environmental, engineering, and planning data and analyses, the US 322-1 OEX, US 322-1S, and US 322-5 Build Alternative corridors were identified as reasonable alternatives and recommended to be advanced for further engineering and environmental study in the NEPA phase of the transportation project development process.

US 322-1 OEX

- Meets the purpose and need
- Environmental Perspective
  - Minimize potential impacts to the comparative regulatory resources evaluated
- Planning Perspective
  - Minimize disruption of the area land use
  - Maintain the existing US 322 business district
- Engineering Perspective
  - Has one of the shortest alternatives (8.3 miles)
  - Has one of the lowest comparative planning-level total cost estimates (\$468-\$493M)

US 322-1S

- Meets the purpose and need
- Environmental Perspective
  - Minimize potential impacts to the comparative regulatory resources evaluated
- Planning Perspective
  - Minimize disruption of the area land use
  - Maintain the existing US 322 business district
- Engineering Perspective
  - Has one of the shortest alternatives (8.3 miles)
  - Has one of the lowest comparative planning-level total cost estimates (\$432-\$462M)

US 322-5

- Meets the purpose and need
- Environmental Perspective
  - Minimize potential impacts to the comparative regulatory resources evaluated
- Planning Perspective
  - Minimize disruption of the area land use
  - Maintain the existing US 322 business district
- Engineering Perspective
  - Has one of the shortest alternatives (8.4 miles)
  - Has one of the lowest comparative planning-level total cost estimates (\$487-\$517M)

**e. Did the public, stakeholders, and agencies have an opportunity to comment during this process?**

Yes, the project website (<https://www.pennDOT.pa.gov/RegionalOffices/district-2/ConstructionsProjectsAndRoadwork/SCAC/Pages/Get-Involved.aspx>) allowed the public to provide comments throughout the duration of the study and to sign up to be included on project email distributions. Additionally, each public meeting had a comment box and open public comment period for the public, stakeholders, and agencies to have the opportunity to comment on the PEL Study updates.

**f. Were there unresolved issues with the public, stakeholders, and/or agencies?**

The public and agencies have varying opinions on the project needs, which corridors should be advanced, resource priorities for avoidance, and mitigation that should occur. During the PEL process, public and agency concerns were considered in the identification of the purpose and needs, development of the corridors, identification of corridors to advance into NEPA, and were documented in the final PEL Report. While not all concerns and preferences were able to be addressed under the scope of the PEL Study, remaining concerns will be further evaluated in the NEPA process, as applicable. One such specific public concern is the inclusion of a PA 45 connector from the proposed corridor. Additional traffic studies will be conducted during the NEPA process to determine the network operation with and without a PA 45 connector. The NEPA team will also work to avoid and minimize resource impacts to address the concerns of the various agencies and will work with the agencies to identify appropriate mitigation for unavoidable impacts.

**7. Planning assumptions and analytical methods:**

**a. What is the forecast year used in the PEL study? 2050**

**b. What method was used for forecasting traffic volumes?**

Traffic volume data for the PEL Study was obtained from the *2019 Data Refresh Report for the Route 322/144/45 Corridors, Centre County, Pennsylvania*. The Data Refresh Report updated traffic and environmental information associated with the former South Central Centre County Transportation Study (known as SCCCTS). Manual turning movement counts (AM and PM peak periods) and automatic traffic recorder counts (24-hour daily) were collected throughout the study area at similar locations included in the previous studies. This traffic data was factored according to PennDOT methodology to develop Base Year (2017) traffic volumes. The Centre County Regional Travel Demand Model (TDM) was used in the development of future Design Year (2050) traffic forecasts for average daily traffic (ADT) and AM and PM peak hours. The TDM considers planned/programmed transportation improvements, future land uses changes, regional travel patterns, transit service, and commercial/freight forecasts. The TDM was recalibrated for 2017 traffic conditions utilizing the traffic volume data collected as well as the Streetlight data. Statewide travel conditions beyond Centre County, including the influence of PennDOT CSVT project on SCAC traffic volumes were also considered, resulting in general confirmation of the Centre County model for this project's use.

**c. Are the planning assumptions and the corridor vision/purpose and need statement consistent with each other and with the long-range transportation plan? Are the assumptions still valid?**

The State College Area Connector was identified as one of the highest priority projects for the CCMPO and officials in Centre and surrounding counties in the *Centre County Long Range Transportation Plan 2050* (September 2021). Additionally, the Regional Comprehensive Plans for Penns Valley, Centre Region, and Nittany Valley; in addition to multiple plans for zoning, bicycle travel, and the Boalsburg community document the following needs:

- Promote the protection of historic rural communities, preserve the agricultural setting of Penns and Nittany Valleys and be compatible with local and regional land use plans.
- Address safety problems while preserving rural nature and/or villages in the study area communities.
- Address vehicular congestion from high volumes of truck traffic, commuters, and special event traffic; traveler delays from frequent incidents, and traffic conflicts that result in crashes and safety issues.
- Consider public transit, park-and-ride lots, pedestrian and bicycle facilities, and other non-motorized traffic (e.g., horse and buggy) to address commuter and internal travel needs in the study area.

The purpose and need statement for the PEL Study is consistent with the needs documented in these plans.

**d. What were the future year policy and/or data assumptions used in the transportation planning process related to land use, economic development, transportation costs, and network expansion?**

Future population growth, economic development and network expansions are based on the CCMPO data collected to develop traffic volume forecasts for the study area. These are reflected in the foundation of the modeling for the State College Area Connector study.

**8. Environmental resources (wetlands, cultural, etc.) reviewed. For each resource or group of resources reviewed, provide the following:**

**a. In the PEL study, at what level of detail was the resource reviewed and what was the method of review?**

Environmental features in the study area were identified through secondary sources, select site reconnaissance, coordination with government agencies and private organizations, and outreach to the public. These features were mapped using a Geographic Information Systems (GIS) database. Environmental resources identified within the study area included:

**Natural Resources** – watersheds, watercourses, wetlands, floodplains, terrestrial habitat resources, and Federal and State Threatened and Endangered (T&E) Species and their associated habitat.

**Geological Resources** – pyrite, karst features, potential sinkholes, and groundwater wells.

**Agricultural Resources** – productive agricultural land, Agricultural Security Areas (ASAs), Agricultural Conservation Easements (ACEs), and agricultural zoning.

**Cultural Resources** – rural historic districts and historic properties listed in or determined eligible for listing in the National Register for Historic Places.

**Socioeconomic Resources** – residential neighborhoods, communities, and subdivisions; Section 8 and low-income housing; Amish communities; land use and development; quarry and mining operations; protection zones for public water supply wells; community facilities including Fire, Emergency Medical Systems (EMS) and Police facilities, medical facilities, parks and recreation areas, schools, and places of worship; and potential waste areas.

**b. Is this resource present in the area and what is the existing environmental condition for this resource?**

The resources listed above are present in the 70-square mile PEL study area. More detailed information can be found in the following technical documents prepared in support of the PEL Study:

*Archaeological Resources Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (May 2021)*

*Hazardous and Residual Wastes Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (May 2021)*

*Terrestrial Habitat Technical Memorandum Need for the State College Area Connector Planning and Environmental Linkage Study (May 2021)*

*Threatened and Endangered Species Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (May 2021)*

*Socioeconomic Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (June 2021)*

*Historic Resources Survey Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (July 2021)*

*Wetland and Watercourses Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (August 2021)*

*Agricultural Resources Technical Memorandum for the State College Area Connector Planning and Environmental Linkage Study (December 2021)*

**c. What are the issues that need to be considered during NEPA, including potential resource impacts and potential mitigation requirements (if known)?**

Upon acceptance of the PEL Study by FHWA, a refined study area will be developed that encompasses the Build Alternative corridors recommended to be advanced as reasonable alternatives for detailed environmental study and engineering in accordance with NEPA. Detailed field investigations will be conducted to confirm, refine, and update the preliminary environmental resource information collected during the PEL Study; perform preliminary noise assessments, assess potential impacts to groundwater resources; delineate streams, wetlands and floodplains; perform a Phase I

environmental site assessment to identify potential hazardous waste sites; complete an agricultural resources evaluation and prepare a Farmlands Assessment Report; conduct archaeological and historic resource surveys; and assess potential effects on historic properties and districts. Preliminary engineering designs will be developed to minimize impacts to environmental resources, balance earthwork, address the need for local access along each alternative, generate a more precise footprint of the likely limits of disturbance, and establish preliminary right-of-way needs. Mitigation commitments will be identified to mitigate any unavoidable environmental impacts.

**d. How will the planning data provided need to be supplemented during NEPA?**

The planning data gathered during the PEL Study will be confirmed, refined, and/or updated based on field investigations and public involvement during NEPA. Based on the updated resource information and public input, the PEL Build Alternatives corridors recommended for NEPA study will be further engineered to create individual alignments with a more precise location and smaller footprint.

**9. List environmental resources you are aware of that were not reviewed in the PEL study and why. Indicate whether or not they will need to be reviewed in NEPA and explain why.**

The PEL Study did not specifically address noise analysis, detailed air quality analysis, or indirect or cumulative assessment of impacts. These along with the detailed investigations for the other environmental resources will be studied during the NEPA phase. They were not reviewed in the PEL Study as the alternatives were not developed to enough engineering detail to allow for meaningful evaluation.

**10. Were cumulative impacts considered in the PEL study? If yes, provide the information or reference where the analysis can be found.**

Environmental cumulative impacts were not considered in the PEL Study and will be evaluated in the NEPA Phase.

**11. Describe any mitigation strategies discussed at the planning level that should be analyzed during NEPA.**

In the PEL Study, efforts were made during the development of the build alternative corridors to avoid and minimize impacts to resources to the greatest extent practicable. Further refinements will be made during detailed engineering of the build alternative corridors to avoid and minimize impacts as more environmental data is gathered. Mitigation concepts mentioned during ACMs will be further evaluated and discussed in the NEPA phase.

**12. What needs to be done during NEPA to make information from the PEL study available to the agencies and the public? Are there PEL study products which can be used or provided to agencies or the public during the NEPA scoping process?**

The PEL Study environmental technical memorandums, engineering and alternative technical memorandums, public meeting summaries, PEL report are available on the study website which will transition to the project website during NEPA. These resources will remain available to the public and resource agencies. The information will also be available for review at the Agency Coordination Meetings which discusses scoping.



**13. Are there any other issues a future project team should be aware of?**

- e. Examples: Controversy, utility problems, access or ROW issues, encroachments into ROW, problematic landowners and/or groups, contact information for stakeholders, special or unique resources in the area, etc.**

Utility – there is a major gas line that traverses the project area. More coordination and information should be collected.

Landowners – agricultural community is concerned with impacts to farm properties and more coordination is necessary to further avoid and minimize impacts to these resources.

Species – there is at least one known bald eagle's nest in the area and the exact location of that nest needs to be determined.

Interchange scenarios and local connections – Interchange connections and location of access is a concern for local communities. Traffic analysis needs to be updated and coordination conducted with local officials.

General project controversy – there is general project controversy. This level of controversy is not unexpected for a project this size.