

Williamsport Area Transportation Study Metropolitan Planning Organization

LONG RANGE TRANSPORTATION PLAN
2018 - 2038

MOVING IN THE RIGHT DIRECTION



WILLIAMSPORT AREA TRANSPORTATION STUDY METROPOLITAN PLANNING ORGANIZATION

LONG RANGE TRANSPORTATION PLAN COUNTY OF LYCOMING

2018-2038

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For:

Williamsport Area Transportation Study

Metropolitan Planning Organization

December, 2018

The preparation of this report has been financed in part by the U.S. Department of Transportation's Federal Highway Administration and the Pennsylvania Department of Transportation with local assistance from the County of Lycoming.

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of either the U.S. Department of Transportation or the Commonwealth of Pennsylvania although these entities have provided data, input and advice throughout the plan preparation process. This report does not constitute a standard, specification or regulation.

No consultants were harmed during the making of this plan.

TABLE OF CONTENTS

Chapter 1 Introduction

- Purpose of a long range transportation plan**
- Overview of the WATS transportation planning process**
- Structure of this plan**

Chapter 2 Planning Context

- Federal and state planning regulations and guidance**
- Lycoming County comprehensive planning**
- Other plans**
- Demographic trends**
- Lycoming County land use patterns**
- Economic development**
- Environmental, natural, and cultural resources**
- Transportation system resiliency**

Chapter 3 Multimodal Transportation System Inventory

- Highway system**
- Bridges**
- Public transportation**
- Air service**
- Rail service**
- Active transportation**
- Other modes**

Chapter 4 Implementation

- Strategic direction**
- Implementation process**

Appendices

- Appendix A – WATS bylaws**
- Appendix B – List of acronyms**
- Appendix C – Resources consulted**
- Appendix D – Public notices**
- Appendix E – Summary of public comments**

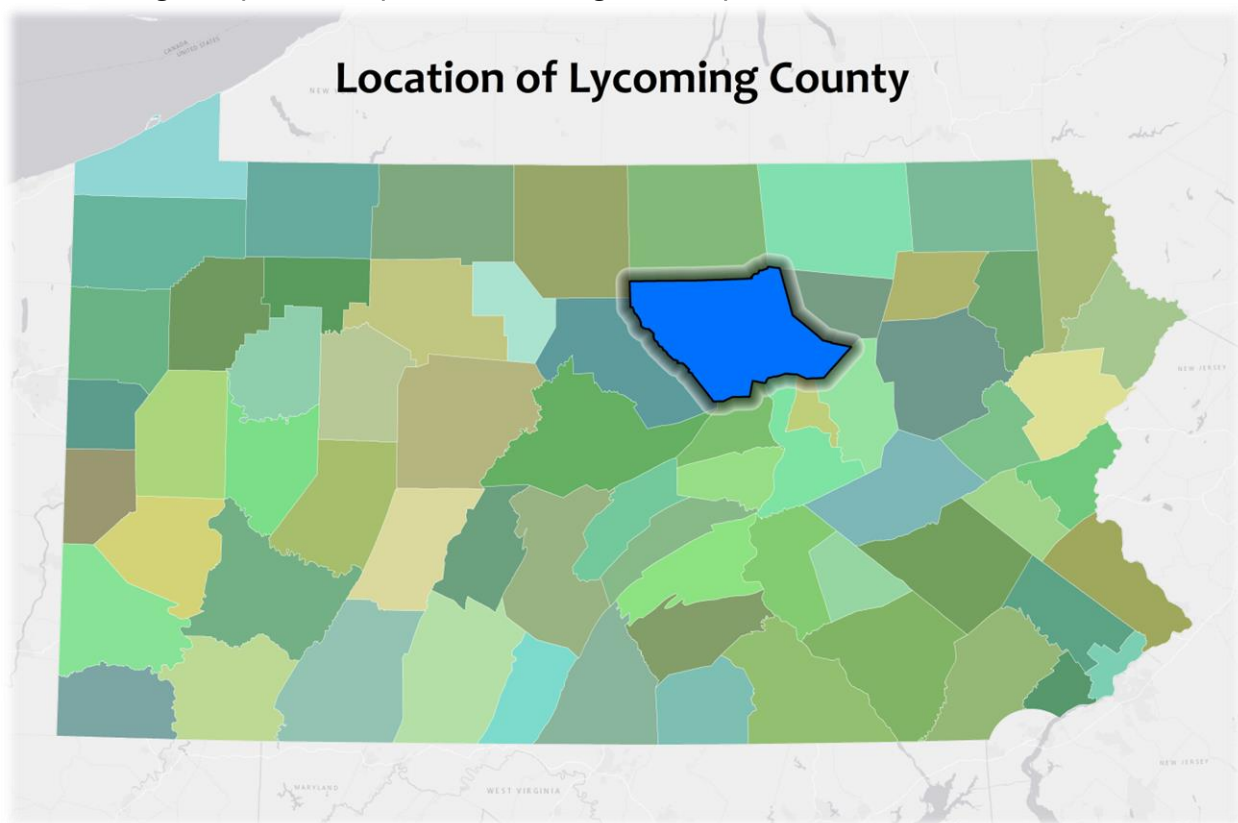
Williamsport Area Transportation Study Metropolitan Planning Organization

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CHAPTER 1 – INTRODUCTION

Purpose of a Long Range Transportation Plan

Transportation infrastructure is arguably the most critical segment of public infrastructure. Whether it is being used to access employment, homes, commerce, medical services, recreation, or industry, the transportation system serves as the links that bind our modern society together. Transportation investments produce significant impacts on community and economic development patterns, public safety and security and the availability of travel choices offered to the public. Overall transportation needs can be complex and ever changing so the planning process needs to rely on accurate and current data-driven methods. This approach allows for correctly identifying problems and targeting sustainable and cost effective solutions to those problems. This plan shall serve as a framework for guiding a transportation planning process that yields positive community results when formulating and assessing transportation options and making the best possible choices.



In the County of Lycoming (a political subdivision of the Commonwealth of Pennsylvania), the transportation system is a critical foundational element of the local economy. The County of Lycoming encompasses a land mass that is geographically larger (1,246 square miles; 796,387 acres) than any other county in Pennsylvania and is even larger than the State of Rhode Island. The multi-modal transportation network connects a small core urbanized area with outlying suburban areas and a large rural area. The transportation system consists of highways and bridges, public fixed route transit, shared ride van service, freight railroads, a commercial service airport, a general aviation public use airport, and multiuse trails.

The Federal Highway Administration, (FHWA) describes the purpose of transportation planning as “to identify broad goals to meet transportation needs.” Federal law and regulations require the

development of Long Range Transportation Plans as part of statewide and metropolitan planning programs that documents transportation investment needs and outlines a strategy regarding how best to address the needs. The plan serves as the official plan for a metropolitan area and federal funding for certain types of transportation capital project improvements (i.e., highways, bridges and public transit) cannot be approved unless these projects are identified in the Long Range Transportation Plan adopted by a Metropolitan Planning Organization. This plan will fulfill the federal requirement for the development of a Long Range Transportation Plan for the County of Lycoming and WATS MPO.

Federal regulations require that Long Range Transportation Plans:

- Consider all transportation modes
- Cover at least a 20 year time period
- Consider eight key planning factors
- Be fiscally constrained
- Provide for public participation
- Be updated at least every five years in air quality attainment areas such as Lycoming County

In addition, the Pennsylvania Department of Transportation, (PennDOT) provides guidance “[Developing Long Range Transportation Plans](#)” that notes this process is a tool to help planning agencies influence development by guiding transportation and economic investment in a manner that supports transportation goals. PennDOT identifies numerous characteristics that are found in successful long range transportation plans which include:

- Create local / regional ownership
- Emphasize planning, not programming
- Collaborate with other stakeholders
- Support other relevant plans
- Articulate clear goals and objectives
- Address quality of life issues
- Maintain an open and transparent process
- Capitalize on the experiences of others
- Consider multiple futures (Scenario planning)
- Develop an evaluation framework
- Employ strong technical analyses
- Link solutions prioritization to goals, objectives and policies
- Support multi-modal and intermodal future
- Integrate land use and transportation
- Distribute investments equitably (Environmental Justice)
- Organize solutions in a relevant format
- Structure the plan to be relevant to local issues
- Include an implementation plan
- Be creative

Therefore, it is our intent that this WATS Long Range Transportation Plan consider the above characteristics to foster efficient mobility and access for people and goods throughout the county, promote regional intermodal connectivity, ensure efficient system performance and adequate

preservation, promote economic development and public safety as well as maintain the County's outstanding quality of life.

This Long Range Plan is critical toward achieving Lycoming County's comprehensive plan vision during a 20 year planning horizon by realizing managed and well planned growth and development through the adoption of sound public policies that target strategic infrastructure investments consistent with federal, state and local planning factors. Given scarce transportation funding resources at all governmental levels, the plan will enable transportation decision-makers to prioritize competing needs and make the best use of available funding to address the most important transportation needs.

This plan will be updated at least every five years in accordance with Federal regulations or more frequently if determined necessary to respond to changing circumstances that may affect the transportation system planning and decision-making process.

Overview of the WATS Transportation Planning Process

Federal law and regulations require the establishment of a Metropolitan Planning Organization, (MPO) to oversee the transportation planning process in all urbanized areas of the nation having a population of 50,000 or more persons as documented by the U.S. Bureau of the Census as part of the decennial census. The Williamsport Area Transportation Study, (WATS) serves as the designated Metropolitan Planning Organization for the Williamsport Urbanized area established under a legal Agreement with PennDOT approved in 1968. The WATS jurisdictional boundary was further extended in 1991 to encompass the entire geographic area of Lycoming County. Therefore, the federal transportation planning and programming process within Lycoming County is undertaken by WATS, including the development and approval of this Long Range Transportation Plan.

In addition to development and adoption of the Long Range Transportation Plan, WATS other core functions include:

- *Establish and manage a fair and impartial setting for effective regional decision-making in the planning area.*
- *Identify and evaluate alternative transportation improvement options: Use data and planning methods to generate and evaluate alternatives. Planning studies and evaluations are included in the MPO Unified Planning Work Program, (UPWP).*
- *Develop a Transportation Improvement Program (TIP): Develop a short-range (four year) program of transportation improvements based on the long range transportation plan. The TIP should be designated to achieve the area's goals, using spending, regulating, operating, management and financial tools.*
- *Involve the public: Continually involve the general public and other affected constituencies in the essential functions listed above.*

WATS Committee Structure

The WATS MPO is organizationally structured with two Committees; a Technical Committee and a Coordinating Committee with defined functions and membership. In addition, WATS bylaws provide for two advisory committees

Technical Committee

The purpose of the Technical Committee is to oversee the development of detailed transportation planning documents, special studies and other technical analysis that documents multi-modal transportation issues and needs and provide advice and recommendations to the Coordinating Committee. The Technical Committee consists of seven (7) voting members, as follows:

- PennDOT Center for Program Development and Management Representative
- PennDOT Engineering District 3-0 Representative
- Lycoming County Planning and Community Development Director
- Lycoming County Planning Commission Member
- River Valley Transit General Manager
- Williamsport Regional Airport Executive Director
- City of Williamsport Engineer/Community Development Director

The PennDOT Center for Program Development and Management Representative serves as Chairman of the Technical Committee.

The Technical Committee voting members are designated by their respective member organizations and serve without term limits at the discretion of their member organizations. Each member organization designates the individual serving on the Technical Committee as their voting member at the beginning of each calendar year and provides written documentation to the WATS MPO Chairman for WATS MPO files maintained by the Lycoming County Planning and Community Development Department. Member organizations designate an alternate voting member that may vote on behalf of the designated member in the case where the designated voting member is unable to attend a specific meeting.

In addition to the seven voting members, the Technical Committee includes four (4) non-voting members, as follows:

- Federal Highway Administration
- Federal Transit Administration
- PA Department of Community and Economic Development
- Susquehanna Transit Company

Non-voting members of the Technical Committee receive WATS reports and meeting notices and agendas and participate in WATS discussions, but serve without a vote.

Coordinating Committee

The purpose of the Coordinating Committee is to review and act upon the recommendations of the Technical Committee and serve as the official policy decision-making body of the WATS MPO. The Coordinating Committee consists of eleven (11) voting members, comprising elected and appointed officials as follows:

- PennDOT Engineering District 3-0 Executive
- PennDOT Deputy Secretary for Planning
- Two Lycoming County Commissioners
- Mayor, City of Williamsport
- Council Member, City of Williamsport
- River Valley Transit General Manager
- SEDACOG Joint Rail Authority Executive Director

- Williamsport Regional Airport Executive Director
- Lycoming County Association of Township Officials Representative
- Lycoming-Sullivan Boroughs Association Representative

The PennDOT Engineering District 3-0 Executive serves as Chairman of the Coordinating Committee. Again, the Coordinating Committee voting members shall be designated by their respective member organizations and serve without term limits at the discretion of their member organizations. Each member organization designates the individual(s) serving on the Coordinating Committee as their voting member(s) at the beginning of each calendar year and provides written documentation to the WATS MPO Chairman for WATS MPO files maintained by the Lycoming County Planning and Community Development Department. Member organizations also designate an alternate voting member that may vote on behalf of the designated voting member in the case where the designated voting member is unable to attend a specific meeting.

In addition to the 11 voting members, the Coordinating Committee includes four (4) non-voting members, as follows:

- Federal Highway Administration
- Federal Transit Administration
- US Department of Housing and Urban Development
- PA Department of Community and Economic Development

Non-voting members of the Coordinating Committee receive WATS MPO reports and meeting notices and agendas and participate in WATS MPO discussions, but serve without vote.

The WATS MPO Coordinating Committee may establish advisory committees, ad hoc work groups, special purpose task forces or steering committees to gather specialized experience, technical advice and input that may be needed to help carry forth transportation planning related activities under the jurisdiction of the WATS MPO transportation planning process. The WATS MPO has established a Transit Advisory Committee that is comprised of WATS members, transit providers and various social service organizations to provide input and recommendations to the WATS MPO on public transit issues and needs in Lycoming County.

Advisory Committees

Transit Advisory Committee

The primary purpose of the transit advisory committee is to review transportation services provided by the fixed-route provider River Valley Transit and the shared-ride operator STEP, Inc. for all passengers, especially for individuals with disabilities.

Bicycle and Pedestrian Advisory Committee

The WATS MPO approved a bylaws amendment in September 2017 creating a new Bicycle and Pedestrian Advisory Committee to provide input to the technical and coordinating committees on prioritization of bicycle and pedestrian projects in Lycoming County.

WATS Administrative Duties

The administrative duties of the WATS MPO are conducted by the Lycoming County Planning and Community Development Department. The primary staff contact for the Department on WATS MPO

administrative matters is the Lycoming County Transportation Planning Supervisor who acts as WATS Secretary.

The Lycoming County Planning and Community Development Department is responsible for the following primary WATS MPO administrative duties.

- Develop and conduct all transportation planning work tasks contained in the WATS MPO approved Unified Planning Work Program contract that is executed between the County of Lycoming and PennDOT. The County of Lycoming subcontracts with the City of Williamsport to perform the Federal Transit Administration funded UPWP transit planning work tasks undertaken by River Valley Transit.
- Schedule, publicly advertise and convene all WATS MPO public meetings, as needed, in accordance with the PA Open Records Law and WATS MPO approved Public Participation Plan. All official business of the WATS MPO takes place at publicly advertised meetings to ensure opportunity for public comment.
- Prepare and distribute meeting agendas and related materials.
- Ensure that all WATS MPO adopted plans, programs and policies are implemented.

The WATS MPO website is maintained at

<http://www.lyco.org/Home/PlanningandCommunityDevelopment/TransportationPlanning/WilliamsportAreaTransportationStudy.aspx>

All WATS MPO administrative records and files are maintained at the Lycoming County Planning and Community Development Department, 48 West Third Street, Williamsport, PA 17701.

WATS MPO administrative related costs borne by the County of Lycoming and the City of Williamsport are reimbursable in accordance with the WATS MPO approved UPWP related contract terms and conditions executed between the County of Lycoming, PennDOT and City of Williamsport. Refer to Exhibit A in the Appendix to review the WATS MPO adopted bylaws for a more complete description of the WATS MPO roles and responsibilities, governance structure and administrative duties and processes.

Structure of This Plan

This plan has been intentionally structured in such a way to facilitate a data-driven, problem-solution approach to planning. The general structure of the plan will mirror that of the statewide Long Range Transportation Plan [PA On Track \(2016\)](#).

Planning Context

Chapter Two of this plan will first provide an overview of the transportation planning environment of Lycoming County in regards to state and federal government planning priorities, local planning priorities, demographic and economic development trends, and potential environmental impacts.

Multimodal Transportation System Inventory

Chapter Three of this plan will provide an inventory of existing transportation assets and services, assess the overall condition and adequacy of these transportation assets and services and begin to explore performance measures and targets associated with each mode.

Strategic Direction and Implementation

The fourth and final chapter of this plan will begin by summarizing the planning goals, objectives and needs identified in Chapter 2 and system deficiencies identified in Chapter 3. Based on these factors, a strategic direction for Lycoming County transportation investment over the next 20 years will be set. Then, the plan will outline the project programming process and a staged 20 year transportation capital improvements program will be developed in a manner that is fiscally constrained. The plan's public involvement process and Title VI environmental justice outreach efforts will be documented.

Williamsport Area Transportation Study Metropolitan Planning Organization

LONG RANGE TRANSPORTATION PLAN
2018 - 2038

CHAPTER 2 – PLANNING CONTEXT

Federal and State Planning Regulations and Policy Guidance

First, we will provide a brief overview of existing Federal and State regulations and policy guidance documents related to the development of Long Range Transportation Plans to ensure that the WATS Long Range Transportation Plan is adequately addressing all planning requirements and considers related guidance to ensure consistency between County and local planning and federal and state law and policy direction. It is important to fully recognize and understand that federal and state laws and policy guidance related to long range transportation planning have been constantly evolving in a manner that is strengthening the overall linkage between land use, transportation, environmental preservation and community livability while giving MPO/RPO transportation planning agencies the necessary tools to conduct a more effective transportation planning and programming process that also promotes strong public involvement in decision-making.



Federal Regulatory Requirements

In 1962, Congress established requirements that transportation planning in the United States be conducted in a “comprehensive, continuous, and coordinated” manner. This 3-C process eventually was further formalized with the enactment of the **Federal Aid Highway Act of 1973** mandating the creation of Metropolitan Planning Organizations, (MPO’s) in each urbanized area with a population of 50,000 or greater as defined in the U.S. Census.

However, it wasn’t until the passage of the [Intermodal Surface Transportation Efficiency Act, \(ISTEA\)](#) of 1991 that transportation planning requirements along with the roles of MPO’s in transportation planning and decision-making was significantly strengthened. The **ISTEA** law enabled States and MPO’s, in cooperation with transit agencies, to develop regional metropolitan transportation plans that reflect unique state and local priorities. The purpose of the law was to improve the linkage between overall transportation planning and the programming of federal funds for specific transportation projects in a more formalized way that addressed transportation and its related impacts, however **ISTEA** regulatory requirements were broadly defined, non-prescriptive and lacked sufficient specific guidance to define core elements of long range transportation plans. Therefore, MPO plans varied widely in content and implementation.

In 1998, Congress enacted the [Transportation Equity Act for the 21st Century, \(TEA-21\)](#). Although, many regulatory requirements were similar to **ISTEA**, better guidance was provided for the development of long range transportation plans with related planning regulations published in the

Code of Federal Regulations (CFR), Part 23. The Federal Highway Administration and Federal Transit Administration re-examined planning regulations, however major changes to **ISTEA** were not deemed to be necessary and were never instituted.

In August, 2005 a new act was passed entitled the [Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users \(SAFETEA-LU\)](#). This law required MPO's adopting Long Range Transportation Plans after July 1, 2007 to perform the following functions:

- **Development of A Public Participation Plan**
- **Addressing Federal Planning Factors (see sidebar)**
- **Development Of Public Transit/Human Services Transportation Plan**
- **Identification Of Transportation Facilities**
- **Identification Of Environmental Mitigation Activities**
- **Conduct Consultation And Coordination**
- **Development Of A Financial Plan**
- **Identification of Operational And Management Strategies**
- **Identification and Addressing of Safety Issues**
- **Identification and Addressing of Security Issues**
- **Adherence to Plan Update Cycle**

In 2012, a new transportation reauthorization bill was signed into law entitled [Moving Ahead for Progress in the 21st Century \(MAP-21\)](#). Along with consolidating a number of federal transportation funding programs and promoting accelerated project delivery, environmental sustainability, more efficient freight movement, increased safety, congestion reduction and system reliability this legislation continues metropolitan and statewide transportation planning processes and incorporates performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection.

The 10 Planning Factors of the FAST Act

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
2. Increase the safety of the transportation system for motorized and non-motorized users
3. Increase the security of the transportation system for motorized and non-motorized users
4. Increase the accessibility and mobility for people and for freight
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
6. Enhance the integration and connectivity across and between modes for people and freight
7. Promote efficient system management and operation
8. Emphasize the preservation of the existing transportation system
9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
10. Enhance travel and tourism.

For the first time, the statewide and metropolitan long range transportation plan must describe the performance measures and targets used in assessing system performance and progress in achieving the performance targets. It is important to note that the US Department of Transportation Secretary is required to establish criteria for the evaluation of the new performance-based planning processes. This process is to consider whether States developed appropriate performance targets and made progress toward achieving the targets. The legislation requires the Secretary to provide reports to Congress evaluating the overall effectiveness of performance based planning and the effectiveness

of the process in each State and for each MPO. **MAP-21** established seven national performance goals:

1. To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
2. To maintain the highway infrastructure asset system in a state of good repair
3. To achieve a significant reduction in congestion on the National Highway System
4. To improve the efficiency of the surface transportation system
5. To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
6. To enhance the performance of the transportation system while protecting and enhancing the natural environment
7. To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

On December 4, 2015, President Obama signed the current transportation reauthorization bill the [Fixing America's Surface Transportation \(FAST\) Act](#). This bill continued the outcome-based performance measures of MAP-21 and clarified the nature of how the goals would be assessed. As a Metropolitan Planning Organization, the Williamsport Area Transportation Study has the option either to accept and support the statewide targets established by PennDOT or to set our own performance targets. The Williamsport Area Transportation Study Metropolitan Planning Organization will opt to accept and support the statewide performance targets developed by PennDOT. The **FAST Act** also expanded the scope of metropolitan planning to include improving transportation system resiliency and reliability, reducing or mitigating stormwater impacts from surface transportation infrastructure, and enhancing travel and tourism.



Commonwealth Of Pennsylvania Policies for Long Range Transportation Planning

In August of 2016, PennDOT adopted its current statewide long range transportation plan and comprehensive freight movement plan entitled [PA On Track](#). This document presents a clear vision and strategic direction for transportation planning across Pennsylvania. It has also greatly informed the structure and direction of this WATS long range plan. The vision of **PA On Track** is to “deliver a quality transportation system to support the economy and lifestyles of current and future

Pennsylvanians.” This balanced emphasis on quality of life, economic development, and sustainability for future generations harmonizes with the outcomes of Lycoming County comprehensive planning efforts outlined in the next section of this plan.

PA On Track identifies four general goal areas based on current economic and demographic trends. These goals provide direction to future transportation system investments. The four goals identified are:

1. System preservation
2. Safety
3. Personal & freight mobility
4. Stewardship

For each of these goals, PennDOT has established specific objectives and performance measures to track progress and identified specific strategies to improve within these aspects of the Commonwealth’s transportation system.

System preservation will use increasingly good data about the transportation systems in Pennsylvania to develop asset management strategies to maintain the current transportation system at a high level of quality. A major deficiency identified by PennDOT is a lack of complete data on locally owned transportation infrastructure. System preservation has the following four objectives:

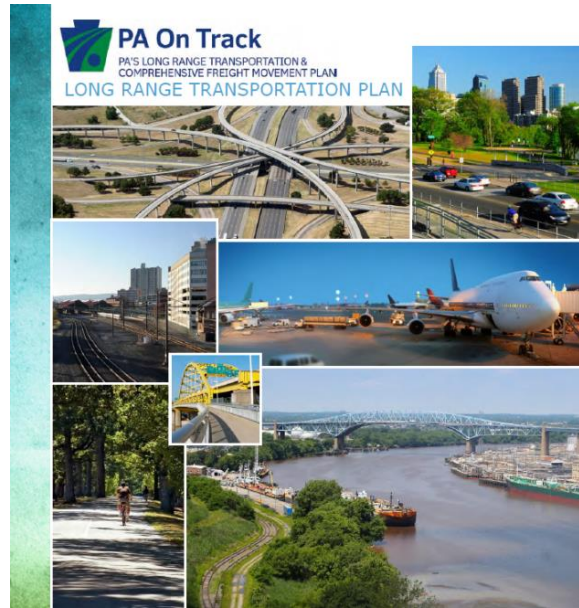
1. Optimize Pavement Conditions
2. Reduce the number of structurally deficient bridges
3. Encourage a good state of repair for all modes
4. Limit the number of load-restricted bridges

To measure progress toward these goals, PennDOT has established the following performance measures:

- Percentage of pavement categorized as excellent/good/fair/poor based on IRI (International Roughness Index)
- Pavement structure index based on OPI (Overall Pavement Index)
- Percent of structurally deficient bridges by deck area
- Number of load-restricted bridges.

To meet the system preservation objectives, PennDOT will be pursuing the following strategies:

- Develop an inventory and condition information of all state- and locally-owned transportation system assets
- Implement enterprise asset management for programming and decision-making
- Prioritize state-of-good repair approaches that preserve transportation system assets
- Implement a Capital Inventory and Planning Tool to store, maintain, edit, and report on transit’s capital assets





Improvement of **safety** statewide for all modes and all users is the second goal of the plan. An ultimate target identified in the plan is the development of a “[Toward Zero Deaths](#)” initiative.

Additionally, the following six specific safety objectives are identified:

1. Reduce statewide transportation system fatalities
2. Reduce serious injury crashes statewide
3. Invest in cost-beneficial approaches and technologies that enhance the safety of the transportation system
4. Improve public understanding of high-risk traveling behaviors
5. Reduce crashes, injuries, and fatalities in work zone areas
6. Promote, develop, and sustain multijurisdictional traffic incident management programs to achieve enhanced responder safety and safe and quick traffic incident clearance

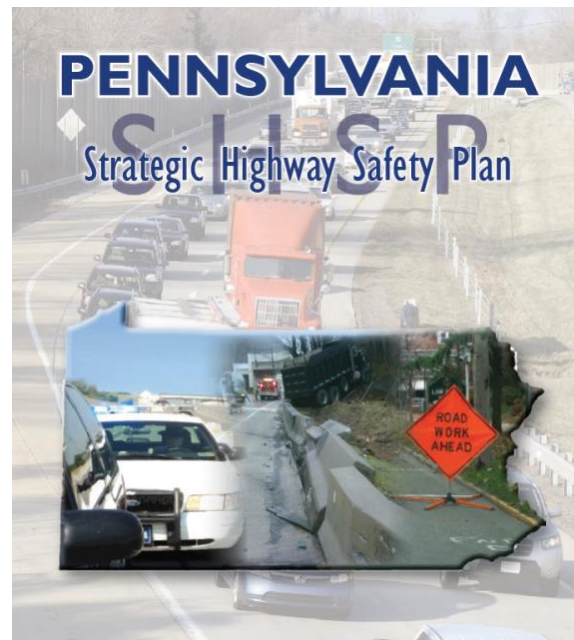
To measure progress toward these goals, PennDOT has established the following performance measures:

- Number of fatalities and serious injuries
- Rates of crashes with fatalities and serious injuries per vehicle miles traveled
- Number of fatalities and serious injuries in work zones
- Number of rail-crossing fatalities, serious injuries, and incidents

To meet the safety objectives, PennDOT will be pursuing the following strategies:

- Implement the Strategic Highway Safety Plan
- Emphasize the Highway Safety Manual in all design processes
- Address safety issues during earlier phases of project planning
- Partner to expand driver improvement programs for seniors and younger drivers
- Emphasize safety for pedestrians and bicyclists through design modifications, education, and aggressive coordination with enforcement
- Ensure highway design accommodates transit and freight
- Support efforts by the General Assembly to enact tougher laws that address distracted driving
- Address the transport of hazardous materials in business plans, long range transportation plans, and county local hazard mitigation plans

Since the 2017 [Pennsylvania Strategic Highway Safety Plan](#) is the guidance document specifically developed to outline Pennsylvania’s progress towards safer highways, it is important to recognize the areas of focus in that document identified to reduce fatalities and serious injuries. The strategic highway safety plan identifies 16 separate safety focus areas that the Commonwealth will pursue to increase highway safety:



1. Reducing impaired driving
2. Increasing seat belt usage
3. Infrastructure improvements
4. Reducing speeding and aggressive driving
5. Reducing distracted driving
6. Mature driver safety
7. Motorcycle safety
8. Young & inexperienced driver safety
9. Enhancing safety on local roads
10. Improving pedestrian safety
11. Improving traffic records data
12. Commercial vehicle safety
13. Improving emergency/incident influence time
14. Improving bicycle safety
15. Enhancing safety in work zones
16. Reducing vehicle-train crashes

The third goal of **PA On Track** is the expand and improve *personal and freight mobility*. Mobility will be modernized using transportation systems management and operations (TSMO) principles. There are five objectives associated with this goal area:

1. Provide multimodal infrastructure and technology advancements to eliminate bottlenecks and improve system efficiency and trip predictability
2. Increase access to jobs, labor, and transportation choices in urban, suburban, and rural communities
3. Support communities through appropriate and equitable transportation modal options and investments
4. Improve first and last mile intermodal access and connections
5. Improve bridge under-clearances and intersection geometry

To measure progress toward these goals, PennDOT has established the following performance measures:

- Annual hours of truck/auto delays
- Annual transit ridership
- Percent/number of freight bottlenecks eliminated

To meet the mobility objectives, PennDOT will be pursuing the following strategies:

- Optimize multimodal infrastructure through improved operations

TSMO

Transportation systems management and operations (TSMO) encompasses a broad set of strategies that aim to optimize the safe, efficient, and reliable use of existing and planned transportation infrastructure for all modes. TSMO is undertaken from a systems perspective, which means that related TSMO strategies are coordinated with each other and across multiple jurisdictions, agencies, and modes. TSMO includes both efforts to operate the multimodal transportation system and activities to manage travel demand. The following are examples of TSMO strategies:

- Traffic incident management.
- Traffic signal coordination.
- Transit signal priority.
- Freight management.
- Work zone management.
- Special event management.
- Road weather management.
- Congestion pricing.
- Managed lanes.
- Ridesharing programs.
- Parking management.

*Source: Federal Highways Administration,
Office of Operations*

- Incorporate a project prioritization tool into statewide planning and programming as a validation process
- Identify the Multimodal Economic Competitiveness Network in collaboration with Pennsylvania’s MPOs and RPOs
- Prioritize and enhance intermodal connections (“first and last mile”)
- Implement station improvements and interlocking projects on the Keystone Corridor
- Integrate freight mobility and truck parking accommodation needs into the Corridor Modernization program.
- Work with local and state partners to support sustainable community-based shared-ride services
- Develop a systematic approach for calculating bicycle and pedestrian needs statewide
- Partner with private sector freight carriers to investigate strategies for improving modal efficiency
- Advocate for additional funding for the state’s ports, locks and dams
- Inventory substandard bridge underclearances for rail

Along with **PA On Track**, PennDOT published a [Comprehensive Freight Movement Plan](#) in 2016 that interrelates and reinforces the freight mobility goals of PA On Track.

The fourth and final goal area contained within PA On Track is an emphasis on stewardship by increasing efficiency and streamlining processes. Nine objectives have been identified within this goal area:

1. Ensure a high standard of quality and maximize effectiveness of agency and user investments
2. Enhance the performance of the transportation system while protecting the state’s natural, cultural, and historic resources
3. Encourage the development and use of innovative technologies
4. Support transportation investments that reflect the diversity of Pennsylvanians and their needs
5. Support coordination of land use and transportation planning
6. Support economic development
7. Support technical assistance/training courses offered to municipalities
8. Support clean air initiatives
9. Promote initiatives aimed at improving system operations and energy efficiency

To measure progress toward these goals, PennDOT has established the following performance measures:

- Annual savings through PennDOT modernization
- Timely delivery of approved local projects
- Timely delivery of highway occupancy permits
- Number of municipal officials trained through the Local Technical Assistance Program (LTAP) on the coordination of land use and transportation planning

To meet the mobility objectives, PennDOT will be pursuing the following strategies:

- Assess weather-related vulnerability in statewide and regional planning
- Continue and accelerate implementation of the “Linking Planning and NEPA Process” to advance project delivery

- Continue sponsoring course offerings on critical land use topics that protect the state's investments in the transportation system
- Raise awareness of freight's value to the economy and its impacts on the state's transportation infrastructure
- Encourage the regional consolidation of transit agencies where efficiencies can be demonstrated
- Use public-private partnerships to expand the available pool of capital and tap into private innovation and approaches
- Investigate opportunities to incorporate technology and Intelligent Transportation Systems across Pennsylvania
- Coordinate with local/county governments on traffic signal management operation and maintenance agreements
- Support the use of alternative fuels and related equipment and facilities
- Continue to plan for the advent of autonomous/connected vehicles

Lycoming County Comprehensive Planning

The current [Lycoming County Comprehensive Plan](#) was adopted by the Lycoming County Board of Commissioners on August 24, 2006 in conformance with the Pennsylvania Municipalities Planning Code (MPC), Act 247 of 1968 as reenacted and amended. This plan serves as a policy document that provides guidance to the County and local municipalities in areas such as land use, transportation, housing, infrastructure, and community development. The plan projects future growth trends based on data and careful analysis and proposes the best possible policies and implementation tools to accommodate expected growth while protecting the County's vast and precious resources. The plan is not a regulatory document. The planning process involved public participation from dozens of stakeholder organizations and the general public over several years.

Concurrent with the development of the overall Lycoming County Comprehensive Plan, the Lycoming County Planning Commission engaged in an extensive comprehensive planning process with 26 municipalities to develop six individual Multi-Municipal Comprehensive Plans for the areas encompassing the designated future growth areas of Lycoming County. Plan development and review is conducted by Planning Advisory Teams (PATs) composed of local government elected officials, emergency services, school districts, community organizations, and others. The six adopted multi-municipal comprehensive plans consist of:

Muncy Creek Multi-Municipal Comprehensive Plan

*Hughesville Borough
Muncy Borough
Muncy Creek Township
Picture Rocks Borough
Shrewsbury Township
Wolf Township*

Montoursville/Muncy Multi-Municipal Comprehensive Plan

Montoursville Borough
Muncy Township
Fairfield Township

Us-220 / Future I-99 Multi-Municipal Comprehensive Plan

Jersey Shore Borough
Piatt Township
Porter Township
Woodward Township
Nippenose Township [Added to Planning Area in 2015]

Us-15 South Multi-Municipal Comprehensive Plan

Brady Township
Clinton Township
Montgomery Borough
Gregg Township, Union County

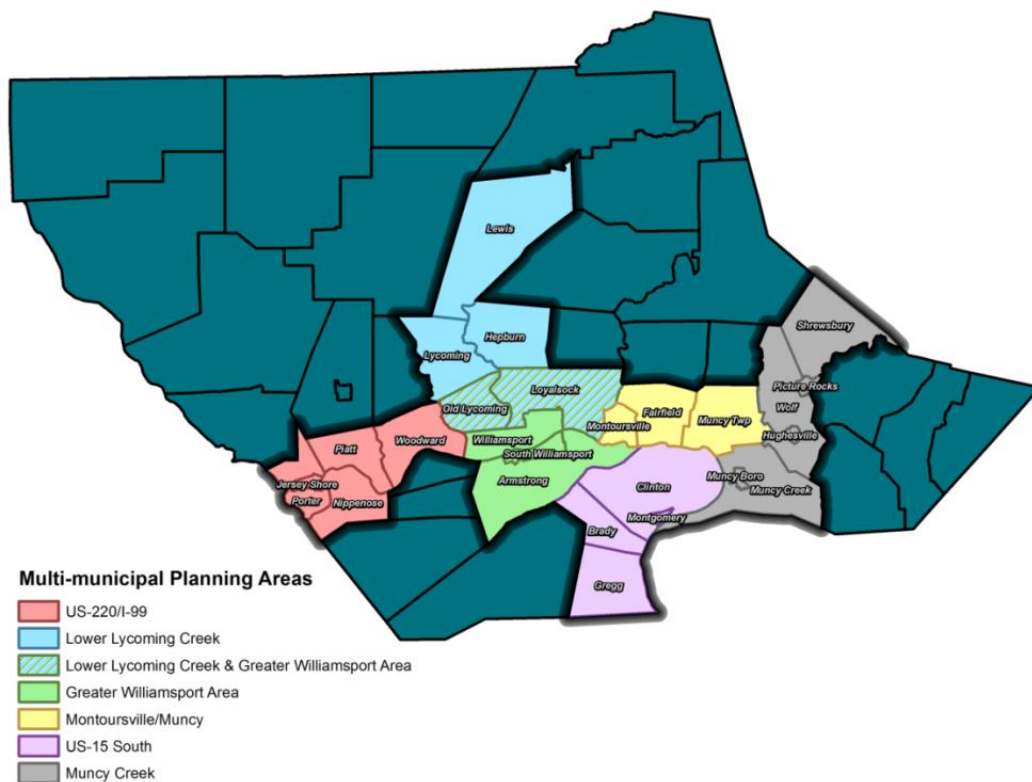
Greater Williamsport Alliance Multi-Municipal Comprehensive Plan

City of Williamsport
South Williamsport Borough
Armstrong Township
Duboisstown Borough
Old Lycoming Township
Loyalsock Township

Lower Lycoming Creek Multi-Municipal Comprehensive Plan

Lewis Township
Lycoming Township
Hepburn Township
Old Lycoming Township
Loyalsock Township

These six multi-municipal comprehensive plans were adopted in the 2004-2006 timeframe by the municipalities noted above under each plan header and are currently in effect. **The map depicted below illustrates the six multi-municipal planning growth areas:**



Consistent with the Pennsylvania Municipal Planning Code, all of the Lycoming County comprehensive plans are subject to a review and validation process at 10-year intervals. The Lycoming County review process began in 2016. While the currently effective plans have all been found to remain valid guidance documents, new implementation strategies have been developed within each multimunicipal planning area as well as in-depth reviews of land use and growth areas. For a complete review of all comprehensive plan related documents, please visit the Lycoming County Department of Planning and Community Development Comprehensive Planning website: <http://www.lyco.org/compplan>.



Lycoming County Comprehensive Planning - Current Issues

All currently adopted [Lycoming County Comprehensive Plans](#) contain a chapter devoted to transportation planning that connects transportation to other functional areas of planning such as land use, community infrastructure, and public safety. Each plan is arranged around a series of “Issues” with a corresponding list of strategies, projects, and initiatives to address the issue. During the 2016 comprehensive plan review process, the current adopted plans were found to still be valid but the issues identified within each plan were re-prioritized to better reflect current conditions. This process was conducted by Planning Advisory Teams within each multimunicipal planning area. Additionally, issues were linked between the multimunicipal plans by a set of broad, thematic

statements that were derived from the more specific local issues. These thematic issues were formulated as “problem statements.” They are:

- The economy is changing, and our communities and workforce are not optimally positioned to realize our untapped economic potential and become resilient to economic trends.
- Flooding is a threat to life, property, and communities throughout the county.
- Communications infrastructure (especially cell phone and broadband internet) do not meet the needs of all areas of the County.
- Significant cultural and historical resources are not adequately documented, protected, and promoted.
- Current land use regulations and enforcement do not consistently and adequately meet community visions and respond to changing conditions.
- Downtown and village center areas across the County are not thriving or achieving their maximum potential.
- Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services.
- Natural gas infrastructure is not adequate in all areas of the County.
- Outdoor recreation resources are not fully developed, protected and promoted.
- Drugs, particularly heroin, are creating significant social, economic, public health, and safety problems across the County.
- Our multi-modal transportation system has deficiencies in safety, physical condition, and availability of facilities in some areas of the County.
- Volunteerism and civic engagement, particularly among young people, are insufficient to sustain community institutions and services.
- Water, sewer, and stormwater infrastructure systems are not sufficient across the County to meet all needs.
- Water quality is vital, but is vulnerable to a multitude of threats.

Each multi-municipal planning area prioritized different issues with varying levels of impact or interrelationship with the transportation system. Since these issues provide an accurate snapshot of current community concerns and priorities, they are included here to provide local context for transportation-specific planning efforts. Following are the issues prioritized within each multimunicipal planning area and an indication to what extent each issue was found to have a transportation-related dimension. Issues with no identified transportation dimension are included but in *light grey italics* text.

Muncy Creek Planning Area Prioritized Issues

1. *Water quality is vital, but is vulnerable to a multitude of threats. There was no identified transportation dimension to this issue.*
2. Flooding is a threat to life, property, and communities throughout the county. Flooding has significant community and economic impacts in this Planning area and is recognized as the largest threat to communities in this planning area as identified in the Lycoming County Hazard Mitigation Plan and in comprehensive plans. This issue was found to have a significant transportation dimension due to the potential disruptions in transportation due to flooding and the extensive potential damages to municipal transportation infrastructure from flood events.

3. Our multi-modal transportation system has deficiencies in safety, physical condition, and availability of facilities in some areas of the County. The Planning Area feels strongly that it is essential to provide a safe, well-functioning and interconnected transportation system to support the residents, business, and industry in this region. The Muncy Creek Planning Area's primary concern is the flow of traffic and increasing delays along I-180 and from Clinton Township through Muncy Borough along State Route 405 (Water Street). This issue is solely concerned with transportation.
4. Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services. There was no identified transportation dimension to this issue.
5. Downtown and village center areas across the County are not thriving or achieving their maximum potential and the economy is changing and our communities and workforce are not optimally positioned to realize our untapped economic potential and become more resilient. The Planning Area linked two overarching countywide issues and tied downtown land use and streetscape decisions to economic development. There is a major transportation component to this issue since the Planning Area wishes to see improved walkability, bikeability, and general streetscape improvements in conjunction with mixed use zoning to promote denser development within core downtown areas.
6. Current land use regulations and enforcement do not consistently and adequately meet community visions and respond to changing conditions. South of this Planning Area in neighboring Northumberland and Snyder Counties will be the forthcoming Central Susquehanna Valley Transportation Project (CSVT). Once multi-year development of the CSVT is completed, there is the potential for a rapid increase in the volume of traffic traveling along I-180. This, in turn, may precipitate additional development pressure in this corridor and, in a larger sense, throughout the Muncy Creek Planning Area. This issue has a significant transportation dimension since it stems from a major ongoing regional transportation project.



Montoursville/Muncy Planning Area Prioritized Issues

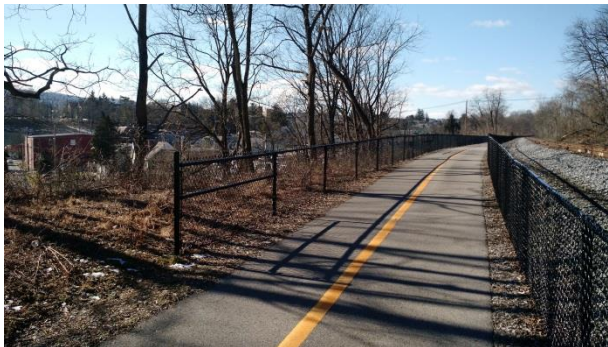
1. Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services There was no identified transportation dimension to this issue.
2. Volunteerism and civic engagement, particularly among young people, are insufficient to sustain community institutions and services. There was no identified transportation dimension to this issue.
3. Our multi-modal transportation system, particularly the airport, has deficiencies in safety, physical condition, and availability of facilities in some areas of Lycoming County. The planning area identified a number of key concerns: deficiencies with the existing Williamsport Regional Airport terminal building, existing traffic problems on Fairfield Road, and future development along John Brady Drive. Muncy Township officials are concerned

that increasing density of development along John Brady Drive will result in numerous driveways with direct access to John Brady Drive. Numerous access points to this primary transportation route can cause a number of issues including traffic congestion and safety concerns. This issue is solely concerned with transportation.

4. Current land use regulations and enforcement do not consistently and adequately meet community visions and respond to changing conditions. The planning area was particularly concerned with how future infrastructure projects and changing economic conditions will influence local development pressures. Located along I-180, the planning area is concerned about what effect changing traffic volumes from the forthcoming Central Susquehanna Valley Transportation Project (CSVV) could lead to increased development around interchanges. The planning area is also interested in projects that advance the development of pedestrian friendly communities. This issue includes a significant transportation dimension.
5. Significant historic and cultural resources are not adequately documented, protected, and promoted. There was no identified transportation dimension to this issue.

US-220/Future I-99 Planning Area Prioritized Issues

1. Flooding is a threat to life, properties, and the communities throughout the Planning Area. Flooding has significant community and economic impacts in this Planning area and is recognized as the largest threat to communities in this planning area as identified in the Lycoming County Hazard Mitigation Plan and in comprehensive plans. This issue was found to have a significant transportation dimension due to the potential disruptions in transportation due to flooding and the extensive potential damages to municipal transportation infrastructure from flood events.
2. Our multi-modal transportation system has deficiencies in safety, physical condition, and availability of facilities in some areas of the county. The planning area is primarily concerned with structurally deficient bridges and the substandard bridge underclearance where the active rail line crosses over US-220 in Piatt Township.
3. Water, sanitary sewer, and stormwater infrastructure systems are not sufficient across this Planning Area to meet all needs. There was no identified transportation dimension to this issue.
4. Drugs, particularly heroin and opioids, are creating significant social, economic, public health, and safety problems across the County. There was no identified transportation dimension to this issue.
5. The economy is changing, and our communities and workforce are not optimally positioned to realize our untapped economic potential and become resilient to economic trends. The Planning Area wants to target new industrial development taking advantage of existing rail service.



6. Volunteerism and civic engagement, particularly among young people, are insufficient to sustain community institutions and services. There was no identified transportation dimension to this issue.

7. Outdoor recreation resources are not fully developed, protected, and promoted. There was a transportation aspect to this issue since the Planning Area included multiuse trails in this issue.

8. Natural gas infrastructure is not adequate in all areas of the County. The Planning Area was concerned that the large amount of truck traffic necessary to transport water and frack sand to assist in drilling operations in rural areas has accelerated pavement wear and tear on state and local roadways, and increased traffic congestion. However, through posting and bonding the belief is that these companies have made the necessary upgrades to ensure that roads and bridges remain safe and in a good state of repair. There was an emphasis on expanded compressed natural gas (CNG) fueling stations.
9. *Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services.* There was no identified transportation dimension to this issue.
10. *Current land use regulations and enforcement do not consistently and adequately meet community visions and respond to changing conditions.* There was no identified transportation dimension to this issue.

US-15 South Planning Area Prioritized Issues

1. *Water quality is vital, but is vulnerable to a multitude of threats.* There was no identified transportation dimension to this issue.
2. *Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services.* There was no identified transportation dimension to this issue.
3. Outdoor recreation resources are not fully developed, protected, and promoted. The Planning Area included non-motorized and active transportation modes within this issue. There was a particular emphasis on the need to plan for non-motorized and pedestrian modes of transportation for the segments of the population that may also use these facilities for more utilitarian purposes other than recreation, specifically the Amish. This Planning Area would also like to see the development of a transportation/recreation mixed use trail connecting the Borough of Montgomery to the Village of Allenwood in Gregg Township in Union County.
4. *Significant cultural and historical resources are not adequately documented, protected, and promoted.* There was no identified transportation dimension to this issue.
5. *Water, sanitary sewer, and stormwater infrastructure systems are not sufficient across the County to meet all needs.* There was no identified transportation dimension to this issue.
6. The economy is changing, and our communities and workforce are not optimally positioned to realize our untapped economic potential and become resilient to economic trends. The Planning Area foresees future commercial and industrial development but is concerned about preventing traffic hazards and congestion. There is a desire to develop a corridor access management plan to prepare for this possibility.
7. Our multi-modal transportation system has deficiencies in safety, physical condition, and availability of facilities in some areas of the County. The Planning Area had concerns pedestrian and bicycle safety and the need for road widening and pedestrian and bicycle lanes. There is a need to take the safety of non-motorized road users into account, where feasible, when renovating the area's road system. The planning team also recognizes that a large portion of those non-motorized road users are members of the Amish community.

Greater Williamsport Alliance Planning Area Prioritized Issues

1. *The economy is changing and our communities and workforce are not optimally positioned to realize our untapped economic potential and become more resilient.* There was no identified transportation dimension to this issue.
2. *Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services.* There was no identified transportation dimension to this issue.

3. Outdoor recreation resources are not fully developed, protected, and promoted. The Planning Area wishes to especially prioritize the exploration of better connectivity for bikeways, walkways, and greenways. There is also a desire to encourage more bicycle and pedestrian facilities for use as both recreation and transportation.
4. Our multi-modal transportation system, particularly the airport, has deficiencies in safety, physical condition, and availability of facilities in some areas of the County. The Planning Area focused on the need for improved active transportation infrastructure, structurally deficient bridges, transportation system connectivity, the need for airport terminal improvements, and streetscape improvements as the major areas where the transportation system needs enhancement.
5. Significant cultural and historical resources are not adequately documented, protected, and promoted. There is a desire to identify and preserve the historical transportation routes in the planning area and to develop multiuse paths or trails that broaden access to historic and cultural resources in the community.
6. *Drugs, particularly heroin and opioids, are creating significant social, economic, public health, and safety problems across the County. There was no identified transportation dimension to this issue.*
7. Downtown and village center areas across the County are not thriving or achieving their maximum potential. Critical pieces of promoting successful downtown development identified within this Planning Area were the needs for streetscape and intersection improvements that enhance walkability.
8. *Water quality is vital but is also vulnerable to a multitude of threats. There was no identified transportation dimension to this issue.*
9. *Water, sanitary sewer, and stormwater infrastructure systems are not sufficient across the County to meet all needs. There was no identified transportation dimension to this issue.*



Lower Lycoming Creek Planning Area Prioritized Issues

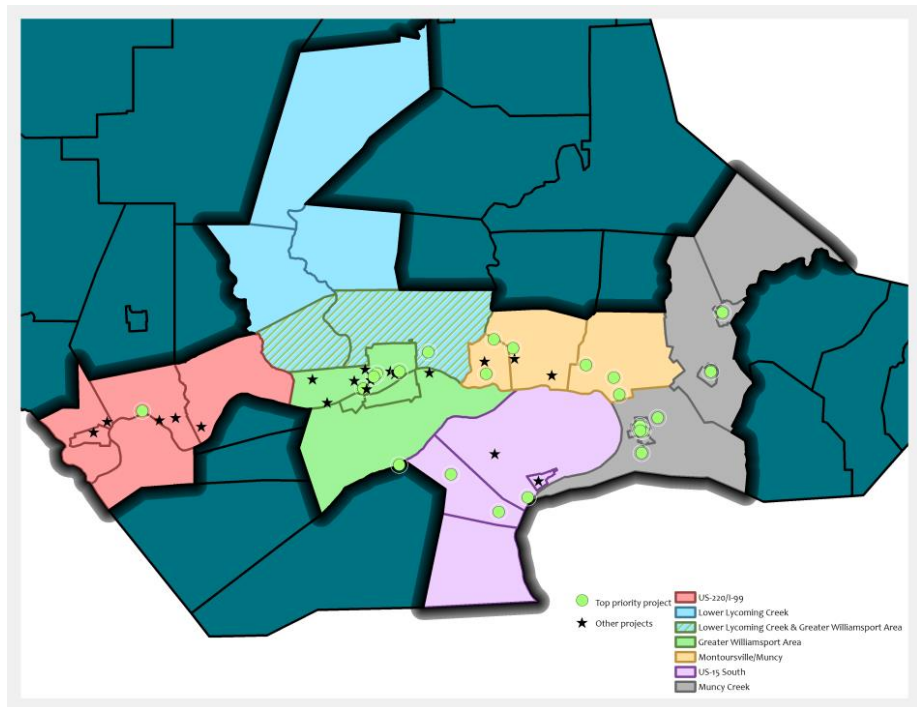
1. *Water, sanitary sewer, and stormwater infrastructure systems are not sufficient across the County to meet all needs. There was no identified transportation dimension to this issue.*
2. *Natural Gas infrastructure is not readily accessible in all areas of the County. There was no identified transportation dimension to this issue.*
3. Outdoor recreation resources are not fully developed, protected and promoted. The Planning Area included better connectivity for bikeways, walkways, and greenways within this issue.
4. *The economy is changing, and our communities and workforce are not optimally positioned to realize our untapped economic potential and become resilient to economic trends. There was no identified transportation dimension to this issue.*
5. *Fragmentation of local government in Pennsylvania is a barrier to efficient delivery of some public services. There was no identified transportation dimension to this issue.*
6. *Water quality is vital, but is vulnerable to a multitude of threats. There was no identified transportation dimension to this issue. There was no identified transportation dimension to this issue.*
7. *Flooding is a threat to life, property, and communities. There was no identified transportation dimension to this issue.*

Common Transportation Needs

After reviewing all of these currently prioritized issues, three major common needs emerge:

1. A need to better accommodate non-motorized modes of transportation. This can involve streetscape enhancements to improve walkability, the construction of multiuse urban trails, the consideration of Amish horse-drawn vehicles, or better planning for bicycles as transportation.
2. A need to address the maintenance needs of transportation infrastructure, in particular structurally deficient bridges, and ensure a resilient and robust transportation system. There is a specific recognition that structurally deficient bridges (especially locally-owned bridges) require a coordinated solution and also a more general need to design and build a transportation system that can withstand our frequent flooding events.
3. A need to better forecast how future economic development and future transportation infrastructure will influence and stimulate each other. This need manifested in several different ways. There is a wide recognition that any economic development (e.g. natural gas drilling) needs to have a concurrent emphasis on preparing for the effects of the development on congestion and physical condition of transportation infrastructure and to ensure that appropriate multimodal transportation capacity is available to accommodate freight and personal mobility. This includes expanding facilities at the airport, ensuring that there are adequate areas of rail-served, developable industrial land, and provided adequate transit service to transport employees and customers. There is also concern about the trickle down effects that CSVT will have on traffic flows and on the development potential of both the US-15 and the I-180 corridors.

While conducting a prioritization of issues, the various Planning Advisory Teams also identified potential projects to address each issue. This “problem-solution” approach to plan review will hopefully yield more implementable results. As previously seen, there were many issues identified within planning areas with at least some transportation-related dimension. Therefore, there were transportation projects identified to address issues throughout the growth areas of the county.



Countywide Comprehensive Plan – Municipalities Outside of the Designated Growth Areas

In addition to the six multi-municipal comprehensive plans covering the growth areas of Lycoming County, there is a countywide comprehensive plan that sets larger goals and guidance and covers the non-growth “rural resource area” municipalities. In the last adopted countywide comprehensive plan, the “Transportation” section also served as the Williamsport Area Transportation Study (WATS) Metropolitan Planning Organization (MPO) Long Range Transportation Plan. That plan has now been superseded by two successive standalone Long Range Transportation plan updates. This plan will be the third update. During the 2016-2017 comprehensive plan review and implementation strategy development project, transportation issues were included with other infrastructure needs. The countywide plan will point back to the currently adopted Long Range Transportation Plan as the definitive resource for strategic transportation planning in Lycoming County as well as reference to the three “common needs” identified through the multi-municipal comprehensive planning efforts.

Other Plans

Lycoming County Hazard Mitigation Plan

The [Lycoming County Hazard Mitigation Plan](#) was last updated in 2015. It includes extensive consideration of transportation crashes of various modes as a moderate human-made hazard within Lycoming County. The Hazard Mitigation Plan states that crashes will increase with any growth in the natural gas industry, citing a 2013 study by Resources for the Future that found that each new well drilled correlates with a 0.6% increase in fatal motor vehicle crashes.

The plan recommends a high priority for traffic safety because of the extremely high frequency of crashes and the potential impact on emergency services response times. A specific recommendation of the plan is to focus on improving safety at “dangerous intersections” to mitigate the overall crash rate.

Lycoming County Comprehensive Recreation, Parks & Open Space/Greenway Plan

Non-motorized mobility is emphasized within the [Lycoming County Comprehensive Recreation, Parks & Open Space/Greenway Plan](#) because of the considerable overlap between the recreational and transport uses of trails, walkways, and bikeways. The plan identifies the following two “key issues” within Lycoming County open space, trails, and greenways needs that have significant importance for transportation planning:

- **Susquehanna Trail.** A multi-county interconnected bikeway system along the Susquehanna River will provide an outstanding recreational experience and a non-motorized vehicle transportation alternative to reduce traffic congestion and maintain clean air which will contribute to an overall improvement in the quality of life in Lycoming County. This initiative is now known as the Susquehanna Greenway trail.
- **Community walking and biking trails.** Safe walking and biking trails in communities that connect schools, parks, and neighborhoods remains the highest priority recreation need for this region.

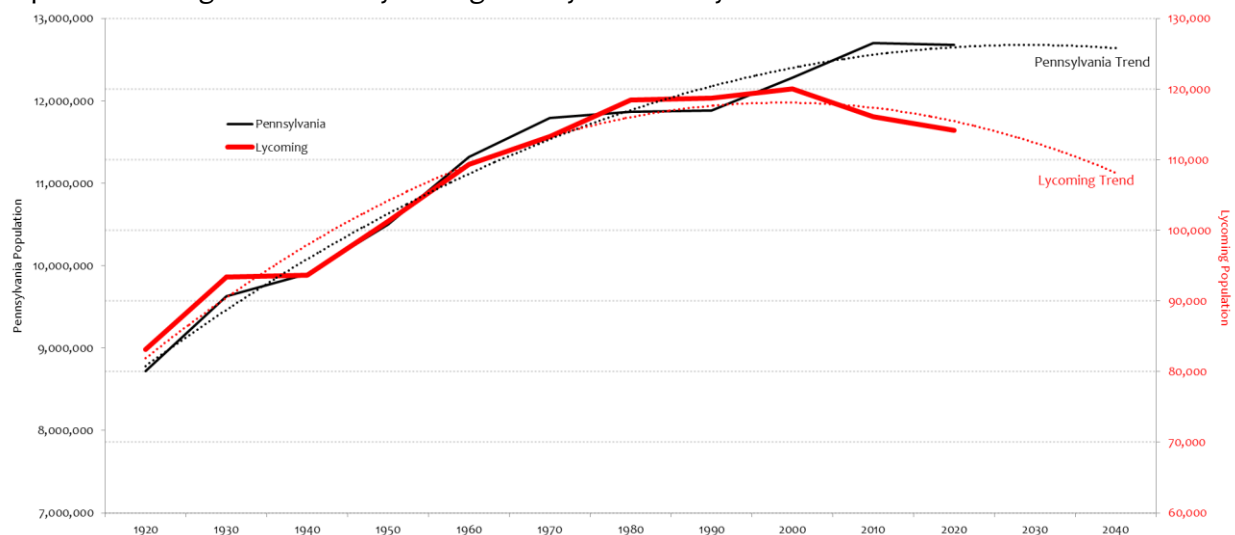
The recreation plan further emphasizes that development of this infrastructure will provide links between communities and safe routes to schools and parks for youth.

Demographic Trends

Population Trends

According to the [2010 United States Census](#), there were a total of 116,111 persons residing in Lycoming County. Up to and including the 2000 Census, the population of Lycoming County was steadily growing. From 1970 to 2000, Lycoming County's population grew by 6,748 persons (a 6% overall gain) which was higher than Pennsylvania's overall population growth at 4.1%. However, based on the 2010 Census count of population and annual American Community Survey (ACS) estimates for the county's population, the population of Lycoming County peaked sometime in the late 1990s and has begun to decline. Projecting the 100 year population trend forward for Lycoming County suggests that within the 20-year planning horizon of this long range plan the population of Lycoming County will be at a similar level to what it was in the late 1960s.

Population change trends for Lycoming County and Pennsylvania:



Similar to statewide trends, Lycoming County population has been shifting outward from the City and Boroughs (incorporated municipalities) into the suburban and rural Townships. Municipalities that have seen population growth are mostly rural Townships located generally along the I-180 corridor between Williamsport and the Borough of Muncy. Within this general area of the county, the Townships of Wolf, Mill Creek, Fairfield and Penn each realized population growth over 5%. Muncy Township and Loyalsock Township each grew by 3% and 1.5% respectively. Meanwhile, the incorporated municipalities within this same area saw large population declines:

Picture Rocks: -2%

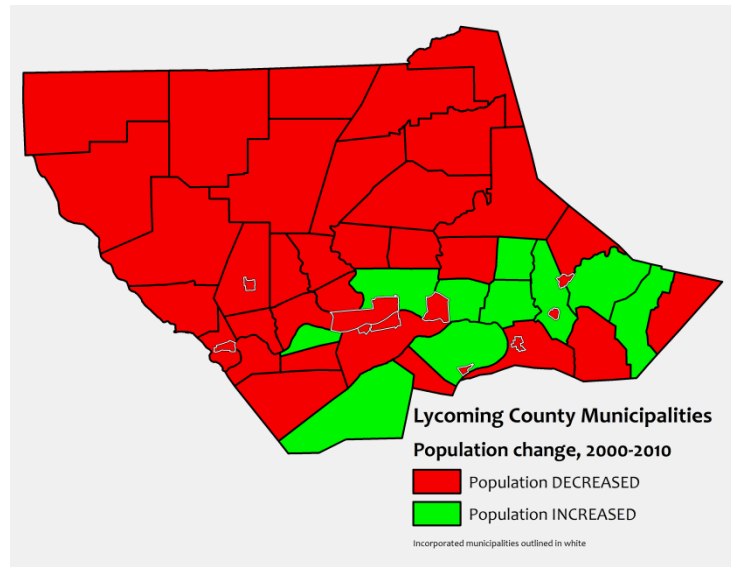
Montoursville: -3.4%

Hughesville: -4%

Williamsport: -4.3%

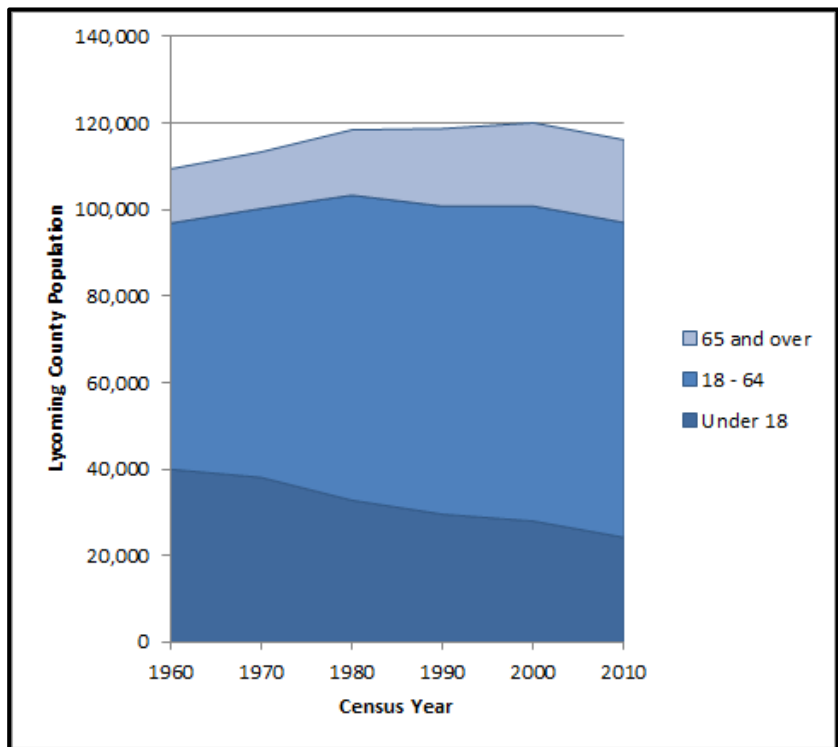
Muncy: -7%

Collectively, these 5 municipalities lost 1,780 people between the 2000 and 2010 census, 1.5% of the total county population in 2000. Meanwhile, even larger percentage decreases in population occurred in the central and northern parts of the county. The Townships of Old Lycoming, Pine, Plunketts Creek, Gamble, Lewis, Brown, McNett and Cummings each saw population decrease by over 10% from the 2000 to the 2010 census.

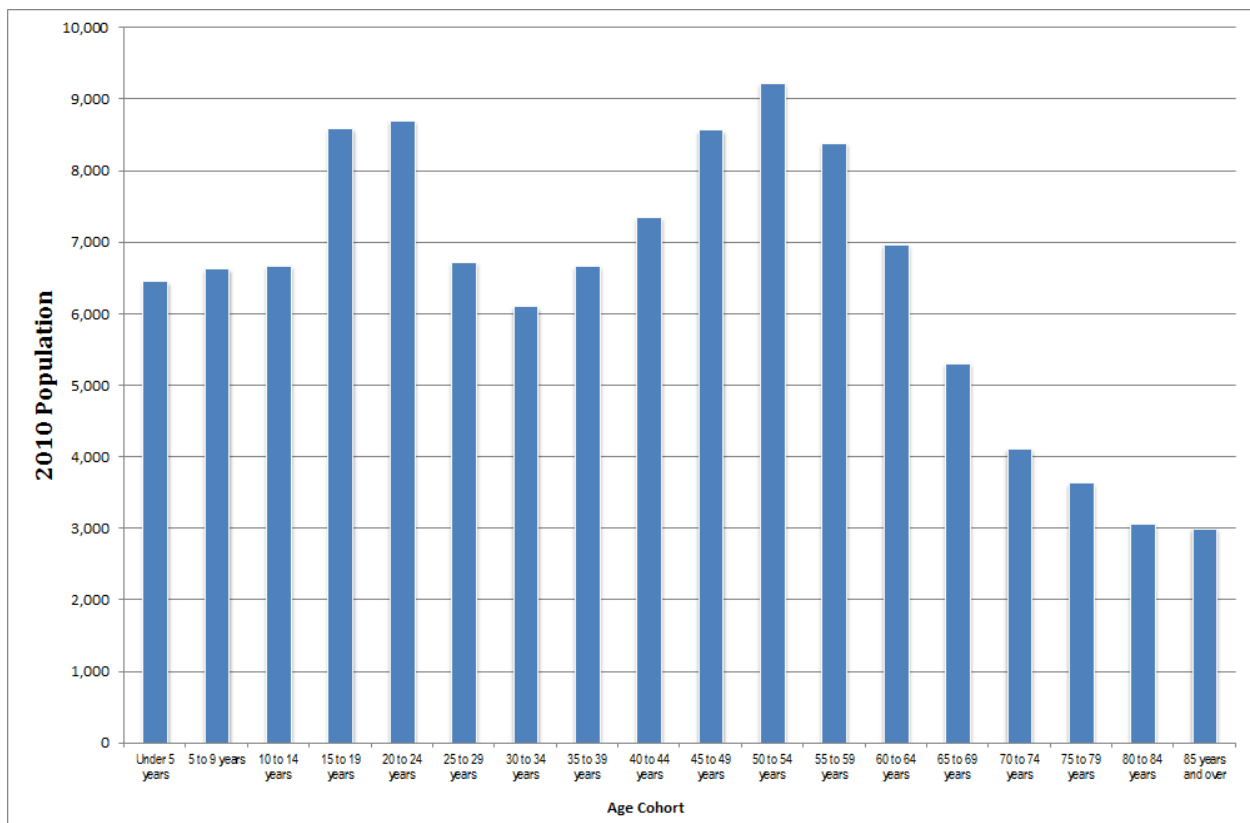


Population by Age Group

The population of Lycoming County is also becoming older on average. However, the largest driver of this trend is not an increase of people over the age of 65 but instead a diminishing proportion of the population under the age of 18. The youth population of the county has seen a steady linear decrease over the 50 year period from 1960-2010. From 1960 to 2010 the proportion of the population in Lycoming County under the age of 18 decreased from 37% to 21%. This was a numerical decrease of nearly 16,000 from a high of nearly 40,000 in 1960 to just 24,000 in 2010. Meanwhile, the proportion of the population aged 65 or over has increased from 11% to 16%. This was a numerical increase of less than 7,000 from about 12,500 in 1960 to just over 19,000 in 2010.



Looking at the breakdown of the population in 2010 based on age reveals another trend greatly influencing the current population composition and future demographics of Lycoming County. Currently, the largest age cohort in Lycoming County is individuals aged 50-54. Individuals aged 45-49 and aged 55-59 also make up a large proportion of the population. Our large (2,211 in the 2010 census) college student population buoys the numbers of those aged 15-24 in the county. Over the lifespan of this plan, with a 20 year planning horizon, the largest age group within the county (those aged 45-59 in 2010, 22% of the total population) will enter their retirement years and then begin to decline in numbers due to mortality. Without an influx of population from outside of the county or a drastic increase in birth rates, Lycoming County is likely to see a dramatic decline in population between the years 2018 and 2038.



Racial and Ethnic Composition

The racial composition of Lycoming County in the 2010 Census is provided on the following table:

Race	2010 Population	Percent Share of Population
White	107,573	92.6%
Black or African-American	5,203	4.5%
American Indian and Alaska Native	217	0.2%
Asian	617	0.6%
Native Hawaiian and other Pacific Islander	25	0.02%
Some Other Race	421	0.4%
Two or More Races	2,001	1.7%

There are 1,559 persons of Hispanic or Latino minority ethnicity which represent 1.3% of Lycoming County's population according to the 2010 Census which is considerably lower than the State-wide 5.7% Hispanic or Latino minority population figure. As shown in the above statistics, the County's racial composition is predominantly white. The 7.4% of the population identified as non-white is substantially lower than the 14.7% state-wide non-white population figure.

2011-2015 American Community Survey (ACS) Estimates for Other Demographics

The US Census Bureau has multiple data sets that it releases pertaining to population and transportation characteristics. Unlike the decennial census, the [American Community Survey \(ACS\)](#) is not a count of individuals but estimates based on surveys mailed to randomly selected addresses. ACS estimates are reported as both single-year and 5-year estimates. Five year estimates are more precise because they have the largest sample size but are the least "current" in that the reported estimates apply to a five year window of time instead of a single year. Single-year estimates are more useful for looking at trends but are less precise. For the purposes of this plan, WATS has looked at 5-year estimates to get a highest precision available estimate of demographics. Below is a summary of the latest ACS 5-year estimates for additional characteristics of the population in Lycoming County that have relevance to the WATS Long Range Transportation Plan.

Limited English Proficiency

According to ACS 2011-2015 5-year estimates, there were 110,132 persons in Lycoming County aged five years and older. Of them, a total of 855 persons (0.8%) speak a primary language at home other than English **and also** speak English less than very well. Lycoming County is significantly lower than the statewide estimate of 4.1% primary non English speaking population and the national estimate of 8.6%.

Disabled Population

In terms of the total Civilian Non-institutionalized population of Lycoming County, there are 113,522 persons residing in the County, where 16,883 persons (14.9%) have a physical or mental disability. The 65 years and over age group of this population grouping is estimated at 19,120 persons with 38.1% having a physical or mental disability. Lycoming County population disability percentages are slightly higher than the state-wide disability estimates of 13.5% of the population with a disability and 34.7% over age 65 with disability. The estimated proportion of the population of Lycoming County living with a disability is significantly higher than the estimated proportion nationwide at 12.4%.

Poverty Status

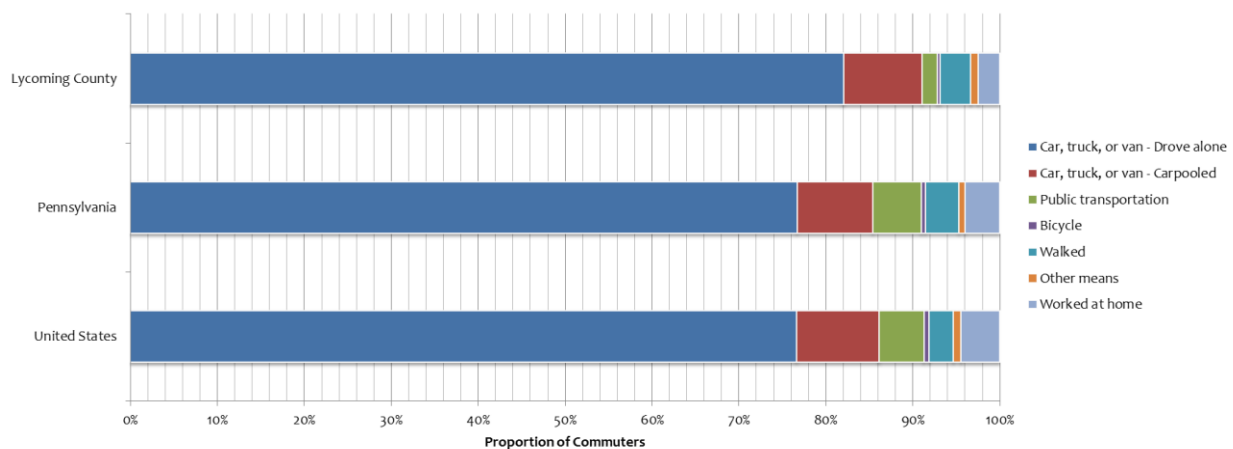
There are an estimated 110,999 persons in Lycoming County for whom poverty status is determined. Of this number, 16,150 persons (14.5%) were determined to be falling below the poverty level which is slightly higher than the Pennsylvania 13.5% poverty level estimate and lower than the national estimate of 15.5%.

Households

There are an estimated 45,906 households in Lycoming County. The average household size is 2.42 persons. The average family size is 2.99 persons. There are an estimated 52,651 housing units. 45,906 housing units (87.2%) are estimated occupied and 6,735 housing units (12.8%) are estimated vacant. Of the occupied housing units, 32,187 (70.1%) are owner occupied while 13,719 (29.9%) are renter-occupied. There are an estimated 4,212 households in Lycoming County without a vehicle available for transportation which represents 9.2% of total households. This is somewhat lower than the state-wide estimate of 11.4% but very similar to the nationwide estimate of 9.1%.

Journey to Work

The graph below compares Lycoming County, Pennsylvania, and United States journey to work information provided by the 2011-2015 American Community Survey relating to the type of transportation modes that are used for work commute.

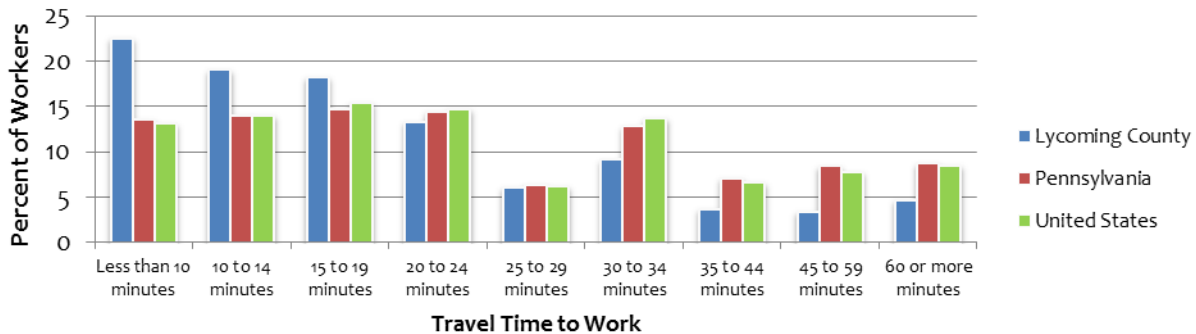


An estimated 82% of commuters in Lycoming County drive a motor vehicle to work alone. This is higher than the Pennsylvania and national proportion of 77%. The estimate of transit usage is also much lower in Lycoming County (1.7%) than the state and national rates of transit usage for commuting to work (5.5% and 5% respectively). In Lycoming County, 4% of commuters walked to work which is double the statewide rate of 2% and higher than the nationwide rate of 2.7%.

In Lycoming County, an estimated 86% of workers both reside and work within the county. In terms of travel time to work, Lycoming County residents have a shorter estimated commute time than statewide and nationwide.

	Lycoming County	Pennsylvania	United States
Average Travel Time to Work (Minutes)	20.2	26.3	25.9

In Lycoming County, a much larger estimated share of workers have very short commute times (less than 15 minutes) compared to workers statewide and nationwide:

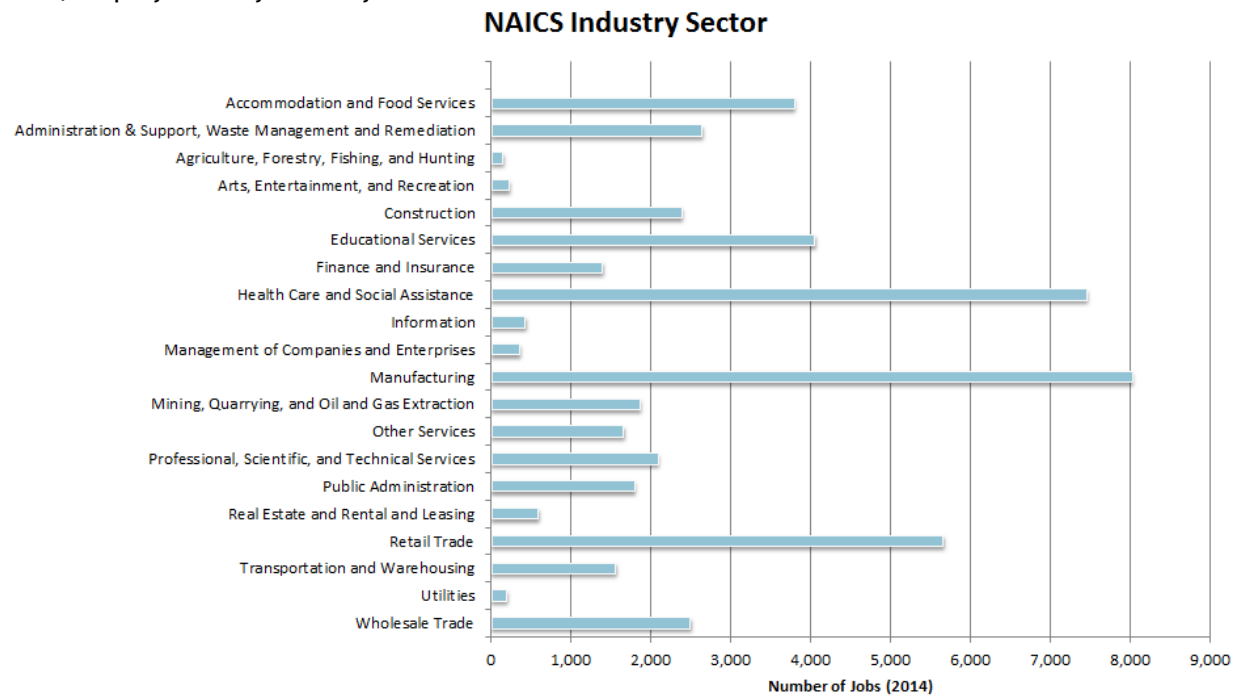


Lycoming County Workforce Data Summary

The US Census Bureau, Center for Economic Studies “[On the Map](#)” data exploration tool was used to derive best available data on jobs, workers and earning in Lycoming County. According to the most recent extract available from this source (2014), there were a total of 48,733 jobs in Lycoming County. Over half (52.9%) of the workforce is between the ages of 30 and 54 years with workers ages 29 and younger comprising 22.2% of the workforce and those 55 or older at 25%. The workforce was slightly more male than female (52.4% vs. 47.6%). The following table shows the educational attainment of the workforce in 2014 (the remaining 22.2% of workers are aged 29 or under and considered to be still in the process of attaining education):

Educational Attainment	Number of workers	Percent share of workforce
Less than high school	3,669	7.5%
High school or equivalent	14,000	28.7%
Some college	12,321	25.3%
Bachelor’s degree or advanced degree	7,937	16.3%

2014 Employment by industry sector is shown on the bar chart below:



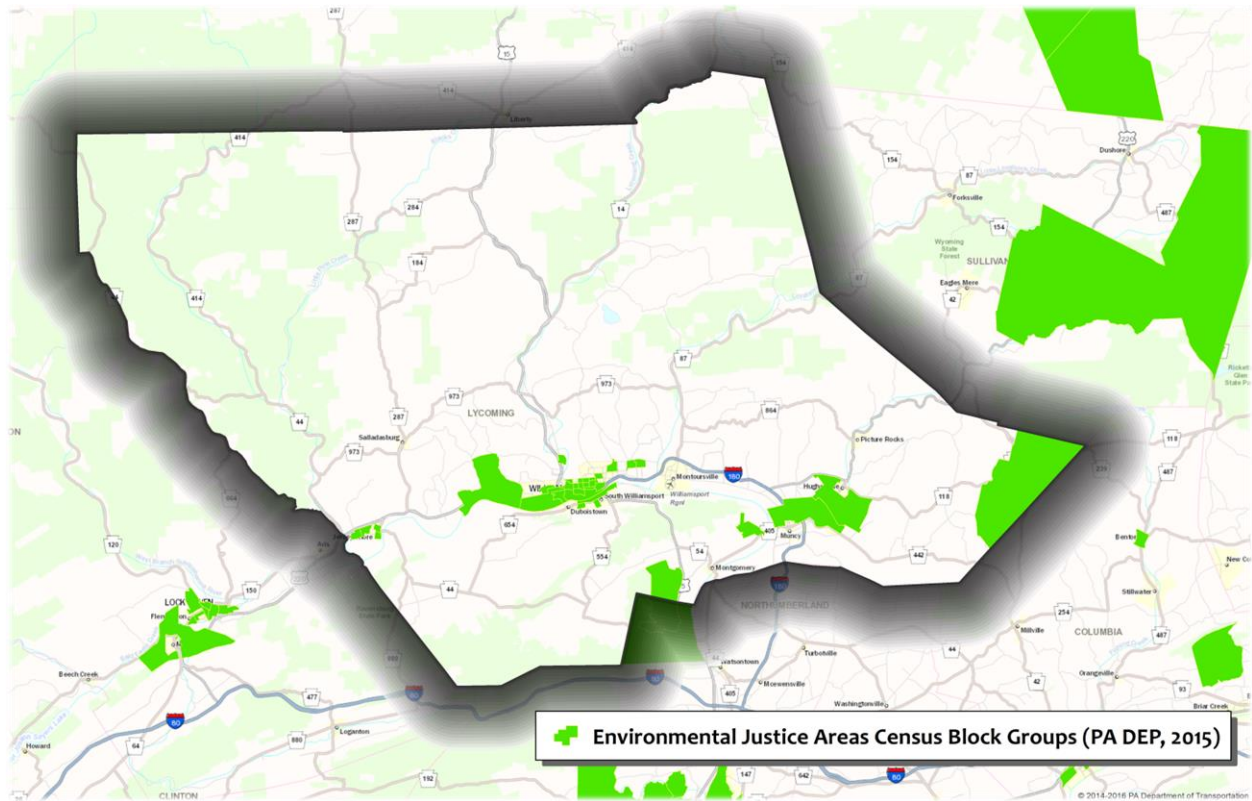
Other Employment Trends

The [Pennsylvania Department of Labor and Industry](#) compiles statistics on employment and employers by county. According to the most recent data from the Department (June, 2017), the Lycoming County unemployment rate was 5.6%. As of the 4th Quarter of 2016, the top 10 employers in Lycoming County were:

1. Susquehanna Health System
2. State Government
3. Pennsylvania College of Technology
4. Williamsport Area School District
5. Weis Markets Inc.
6. Lycoming County Government
7. West Pharmaceutical Services Inc.
8. Aramark Facility Services LLC
9. CS Group Payroll Services LLC
10. Wal-Mart Associates Inc

Environmental Justice Areas

The Pennsylvania Department of Environmental Protection defines environmental justice areas as areas where there is “a poverty rate of 20% or greater or a non-white population of 30% or greater” based on the latest US Census Bureau American Community Survey. PA DEP then makes spatial data available through their [Open Data](#) portal showing all census block groups in Pennsylvania that currently meet those criteria. WATS uses the latest version of this data set to identify environmental justice implications of projects.



Lycoming County Land Use Patterns

As indicated earlier in this chapter, Lycoming County comprehensive planning efforts include six multi-municipal growth area plans along with a countywide plan encompassing the non-growth area covering the remaining geographic portion of the County. The portion of the county outside of the growth areas is referred to as the special resource protection area. Part of the development of the comprehensive plans and the review has been development of Future Land Use maps. These maps were all updated in late 2016-early 2017 to reflect current conditions and the evolving community vision for future land use patterns. Future Land Use categories are defined as the general type of community character desired for areas within the planning area. These categories are used to guide growth and future development. The land use categories are split into those used to characterize lands for desirable and suitable growth (growth areas) from lands to be used for rural use applications (rural resource areas). The primary determining factor for whether or not an area is designated a “growth” area or a “rural resource” area is the existing or planned presence of necessary infrastructure to support development. This includes public water, public sewer, other utilities, and especially transportation infrastructure. Other considerations include specific property occupancy types and density of development.

The following table lists and defines the land use categories used during the most recent comprehensive plan:

Future Land Use Category		Purpose
Growth Areas	Business/Industry	To function as centers of commerce supported by industrial activity, and accompanied by institutional facilities and infrastructure
	Downtown	To serve as the diverse community center of mixed uses including commercial activity, civic and institutional facilities, cultural amenities, and affordable housing opportunities
	Neighborhood	To accommodate residential neighborhoods interspersed with public and private services
Rural Resource Areas	Rural	To support traditional agriculture, forestry, and other natural resource production/extraction uses and to accommodate supporting activities
	Rural Center	To concentrate a variety of residential uses and small-scale retail and service activities that support rural communities
	Village	To preserve concentrated residential uses as rural neighborhoods

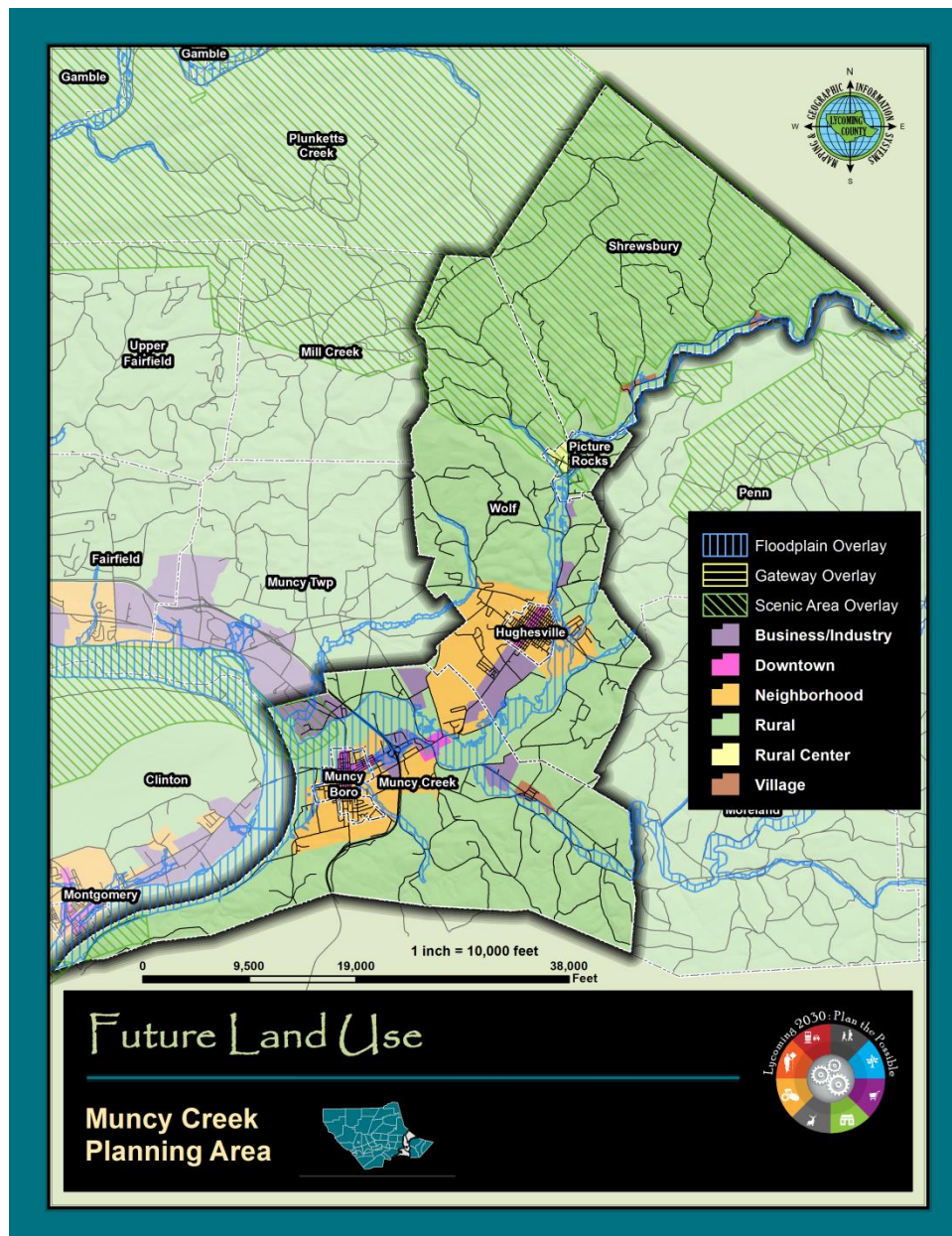
In addition to these six future land use designations, there are three land use special overlays to provide special protection or development guidance for specific resources or locations. The overlays are:

Overlay	Purpose
Gateway	To provide special land use and development guidance at the major (and historic) entry points to communities
Scenic Area	To protect significant natural resources, including stream corridors, high quality watersheds, woodlands, wetlands, groundwater recharge areas, steep slopes (>25%), prime agricultural soils, and scenic areas through special land use and development guidance.
Floodplain	To conserve lands areas naturally affected by flood events

Periodically, zoning district boundaries are compared to the future land use areas and the overlays. Comparing the desired uses from the future land use categories and overlays, as shown in the previous tables, to existing land use and current zoning illustrates where zoning ordinance revisions will need to be implemented to enable the future land use pattern to happen.

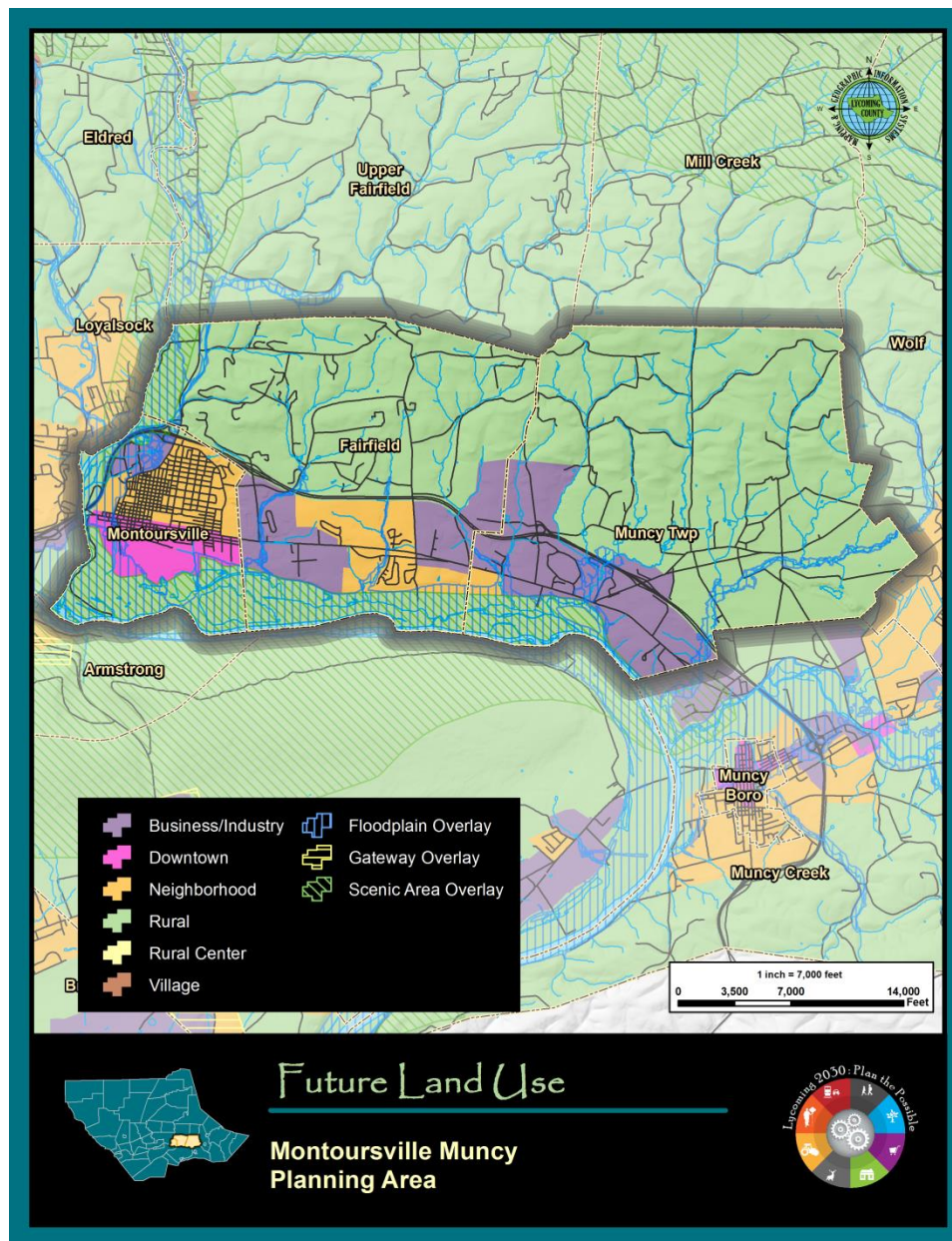
Muncy Creek Multi-Municipal Growth Plan Area

The growth area for the Muncy Creek Planning Area encompasses the PA 405 corridor anchored by Hughesville and Muncy Boroughs. Portions of Muncy Creek and Wolf Townships are included in this corridor. This growth corridor promotes a mixed use, downtown environment in Muncy and Hughesville. Business and industry uses are recommended around the I-180 interchange and along a small segment of PA 442. Neighborhood uses are promoted to expand the development patterns of Hughesville into Wolf Township and of Muncy into Muncy Creek Township.



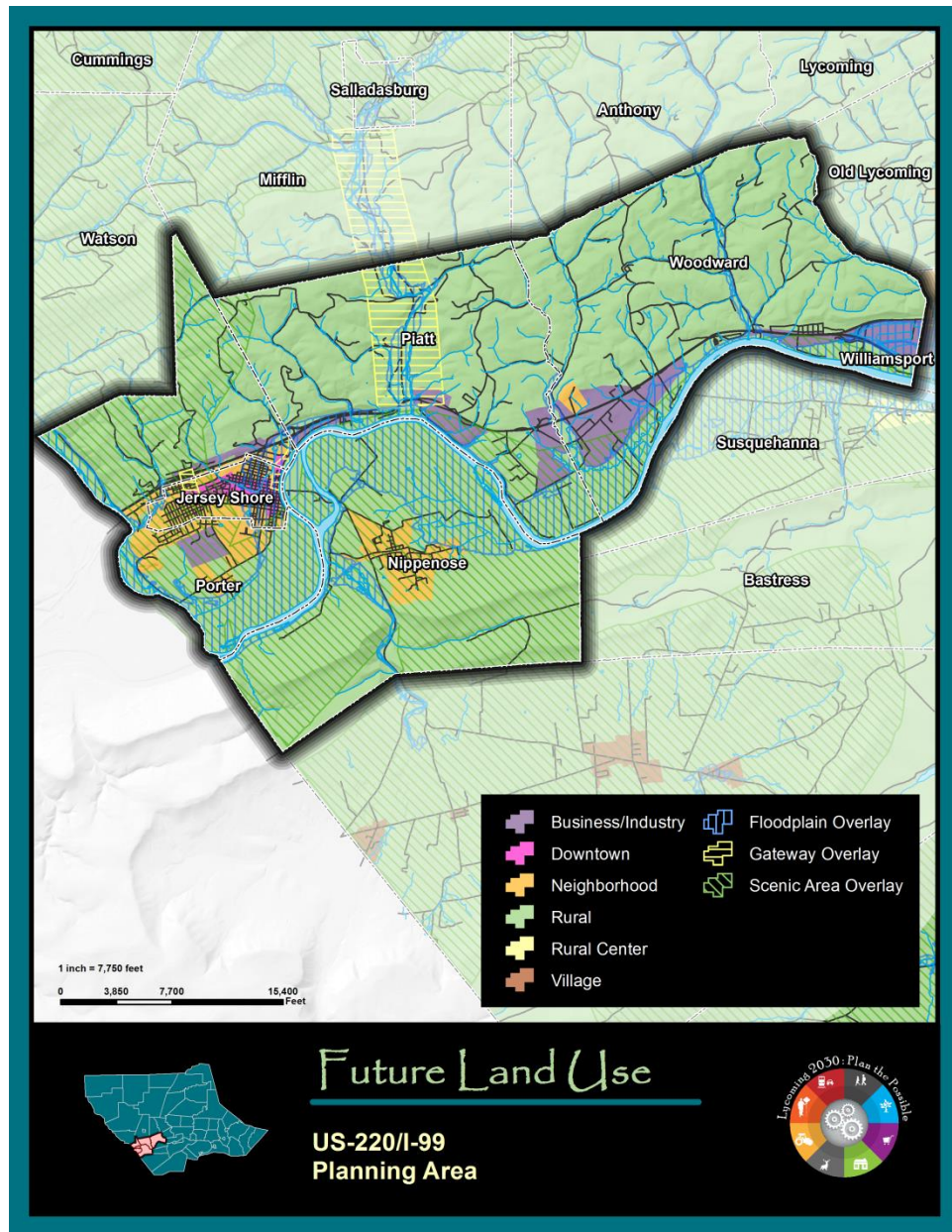
Montoursville-Muncy Multi-Municipal Growth Plan Area

The growth area for the Montoursville-Muncy Planning Area is the corridor between I-180 and the Lycoming Valley Railroad. This growth area promotes the expansion of a downtown, mixed use environment in Montoursville. It recommends business and industry uses east of Montoursville and throughout the eastern half of the corridor. Neighborhood uses at densities and patterns similar to Montoursville are recommended north and south of the central roadway corridor (Broad Street/Lycoming Mall Drive/John Brady Drive) to keep residents in near proximity to employment centers and community services, thereby supporting the efficient provision of public utilities, as well as the use of transit and other transportation alternatives.



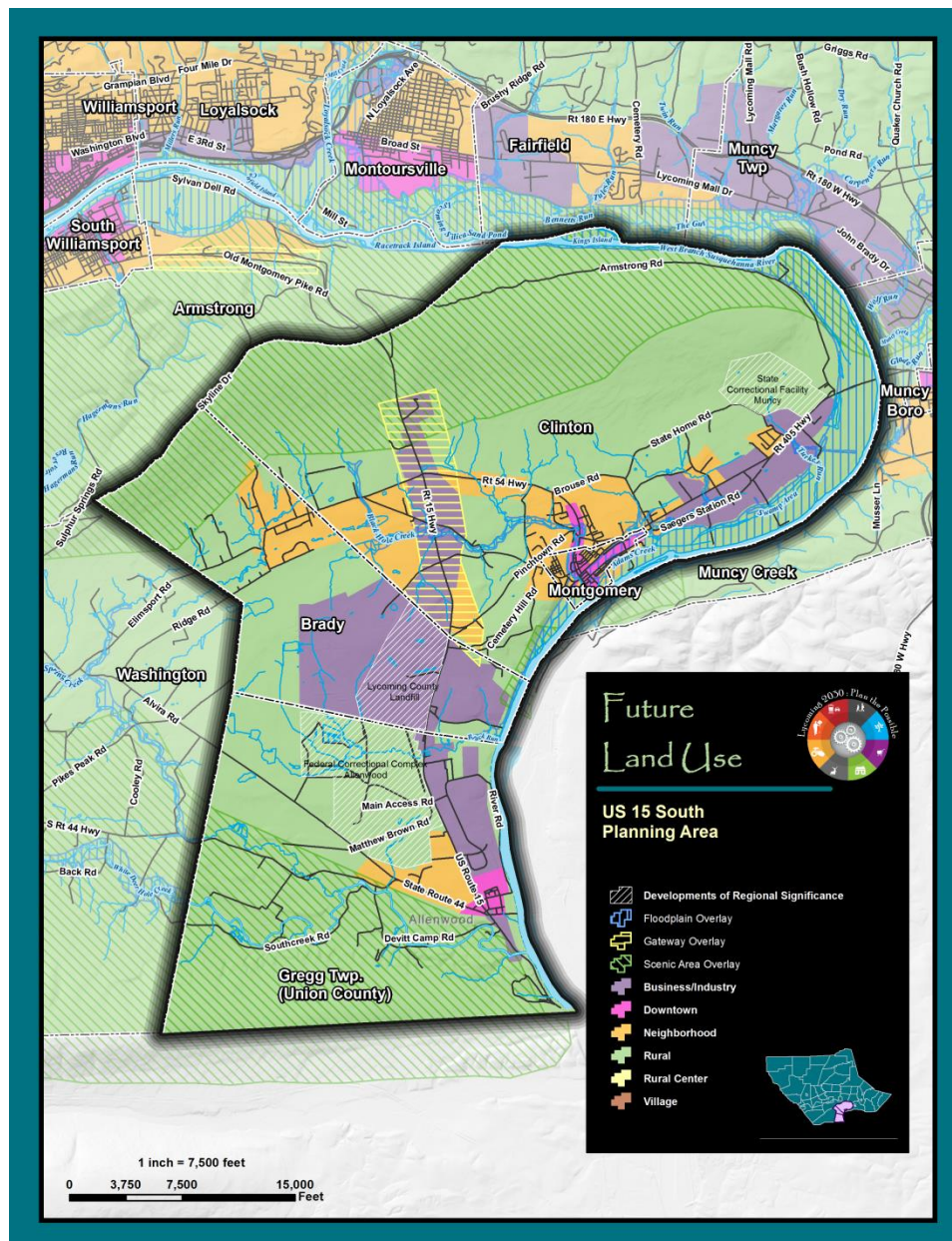
Us 220 / Future I-99 Multi-Municipal Growth Plan Area

The growth area for the US 220/Future I-99 Planning Area is a ½ to 1 mile wide corridor along the current US 220 and I-99 study alignments. The growth area includes all of Jersey Shore Borough. The growth area promotes neighborhood uses and business and industry uses in Porter Township as an extension of Borough use and development patterns. Business and industry uses are also recommended in the vicinity of Pine Run, Larry's Creek, and the 4th Street exit in Woodward Township. Future interchanges may support further expansion of these business and industry locations in the future.



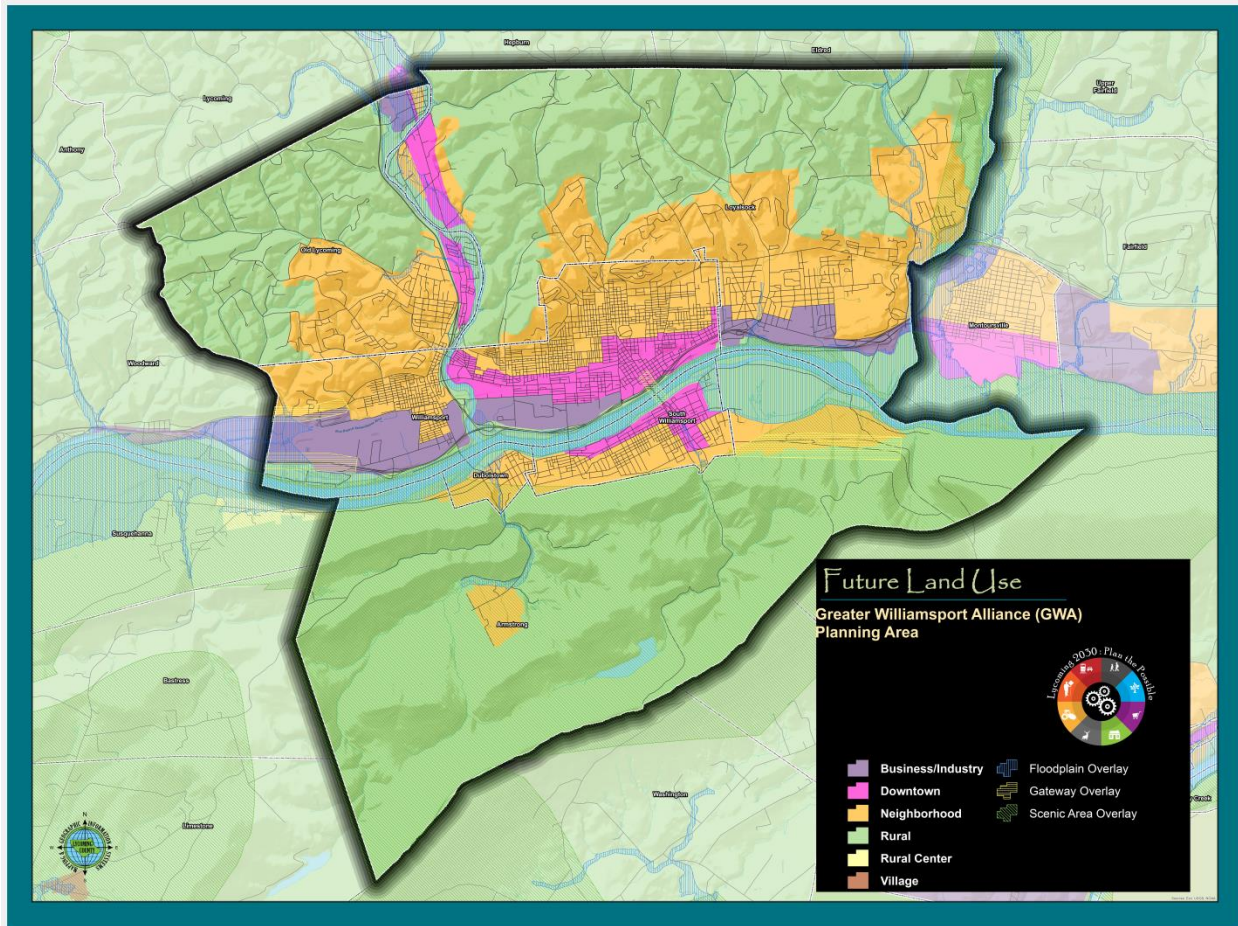
Us-15 South Multi-Municipal Growth Area Plan

The growth areas for the US 15 South Planning Area follow the US-15 corridor, the PA-54 corridor and the PA-405 corridor, and include most of the Borough of Montgomery. The US-15 corridor growth area recommends a combination of business/industry and neighborhood future land uses. Business/industry uses are also recommended for the PA 405 corridor east of Montgomery. Downtown and Neighborhood uses are recommended for the Borough. Neighborhood uses are recommended for the PA 54 corridor.



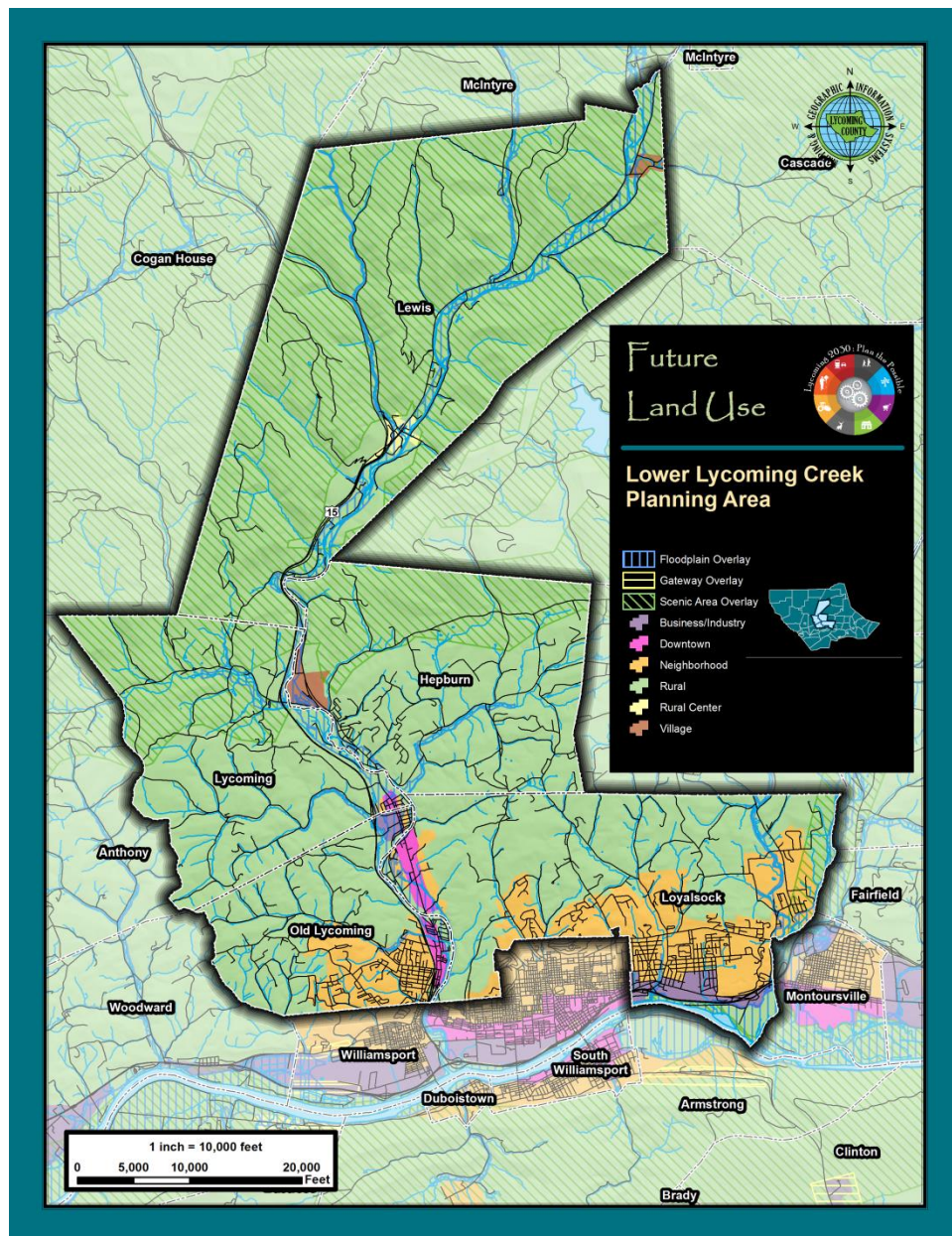
Greater Williamsport Alliance Multi-Municipal Growth Area Plan

The growth area for the Greater Williamsport Alliance Planning Area encompasses the City of Williamsport, nearly all of South Williamsport and Duboistown, and portions of Armstrong, Loyalsock, and Old Lycoming Townships. This growth area promotes an expansion and further diversification of the existing downtown, mixed use environment throughout the most urbanized portions of the planning area.



Lower Lycoming Creek Multi-Municipal Growth Plan Area

The growth area for the Lower Lycoming Creek Planning Area centers on the urbanized areas of Loyalsock, Lycoming and Old Lycoming Townships. This growth area promotes business and industry uses on the south side of Oak Lynn and mixed residential and commercial uses in a downtown environment along Lycoming Creek Road. Neighborhood uses are recommended for Loyalsock Township east and west of the downtown corridor, as well as north of Williamsport; for Old Lycoming Township west of US 15, and around Oak Lynn.

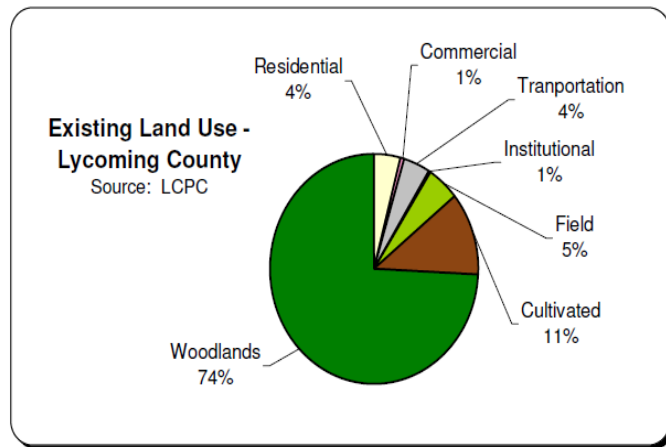


Special Resource Protection Areas

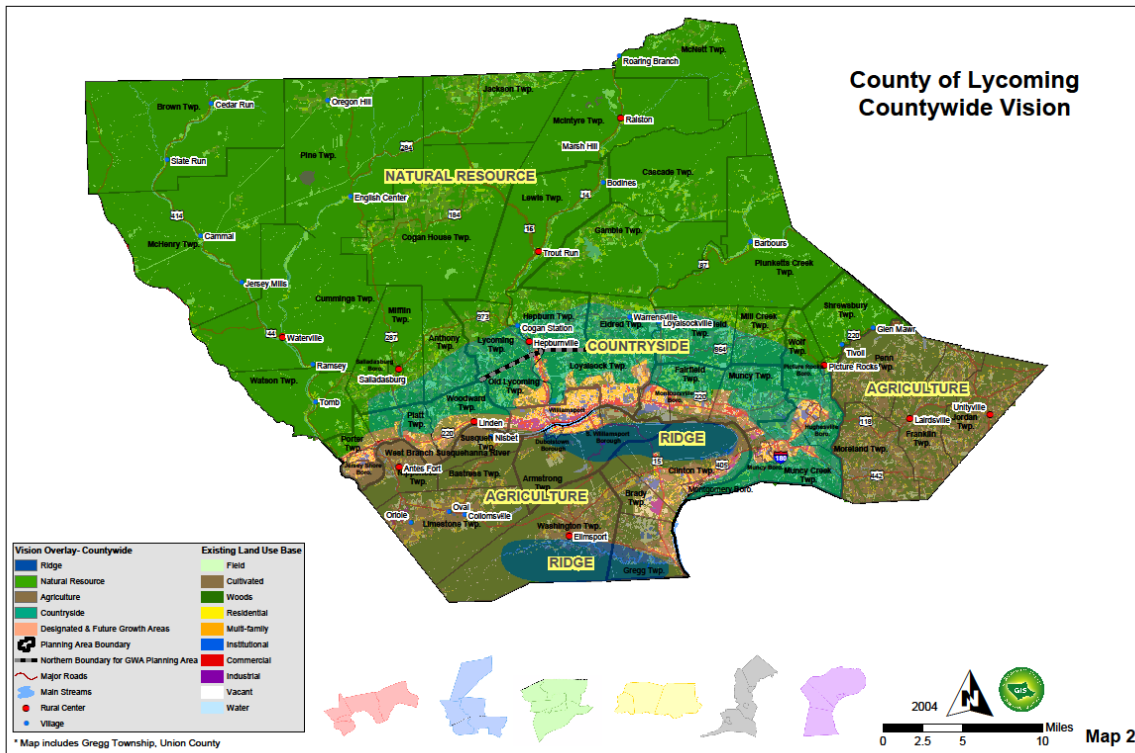
Municipalities that are not part of one of the six Multi-Municipal Comprehensive Plan growth areas are included in the Lycoming County Comprehensive Plan special resource protection areas. These 26 municipalities consist of Brown, McHenry, Cummings, Watson, Pine, Mifflin, Anthony, Salladasburg, Cogan House, Jackson, McIntyre, McNett, Cascade, Gamble, Plunketts Creek, Eldred, Upper Fairfield, Mill Creek, Penn, Moreland, Franklin, Jordan, Washington, Limestone, Bastress, and Susquehanna which represent half of all Lycoming County municipalities.



The rural character and natural resources present in this vast portion of Lycoming County are evident in that approximately 90% of the land use in this part of the county consists of undeveloped woodlands (including an abundance of State Forest and Game Lands), open space and agricultural areas. Only 4% of land uses consist of residential development, 1% are commercial development and 1% are institutional. Transportation facilities occupy the remaining 4% of land use. The Lycoming County Comprehensive Plan encourages future preservation of this land area and avoidance of large scale development patterns which would cause negative impacts to natural resources and require costly public infrastructure extension such as water and sewer and roads. Emphasis should be placed on maintenance of current infrastructure, recreational promotion and prudent land conservation stewardship practices.

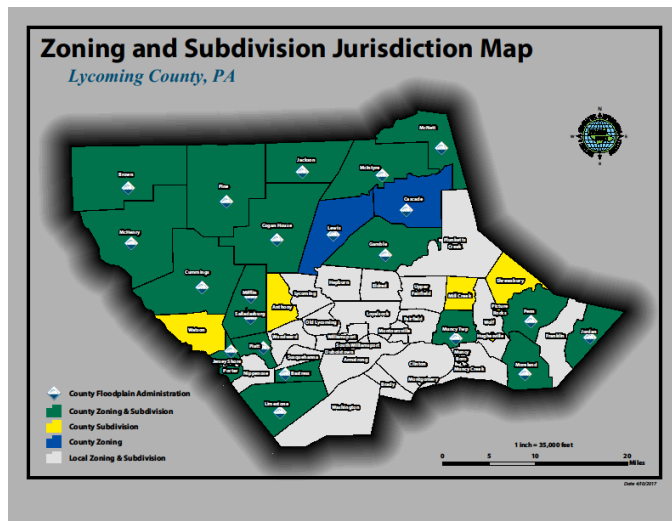


When compiling existing and future land use mapping, the Lycoming County Planning Commission has established an overall county-wide vision of future land uses that will be used as a basis to further integrate, land use and transportation planning connectivity as part of this Long Range Transportation Plan.



However, in order to achieve this vision, the County needs full cooperation from Lycoming County municipalities regarding subdivision, land development and zoning decisions because the County lacks land use decision making authority in many areas, especially in the six multi-municipal plan growth areas. The map to the right illustrates county-wide land use jurisdiction for each of the 52 municipalities.

As noted on the map, the Lycoming County Planning Commission through an adopted Subdivision and Land Development Ordinance, (SALDO) regulates subdivision and land development activity in 24 of the 52 Lycoming County municipalities. The remaining 28 municipalities have adopted their own ordinances and thus have decision-making jurisdiction over subdivision and land developments. In those cases, the Lycoming County Planning Commission provides advisory review comments to the municipality under PA Act 247. Further, the Lycoming County Zoning Ordinance adopted by the Lycoming County Board of Commissioners regulates zoning activity in 18 of 52 municipalities through a County Zoning Hearing Board appointed by the Commissioners. Again, the remaining 34 municipalities have adopted their own zoning ordinances



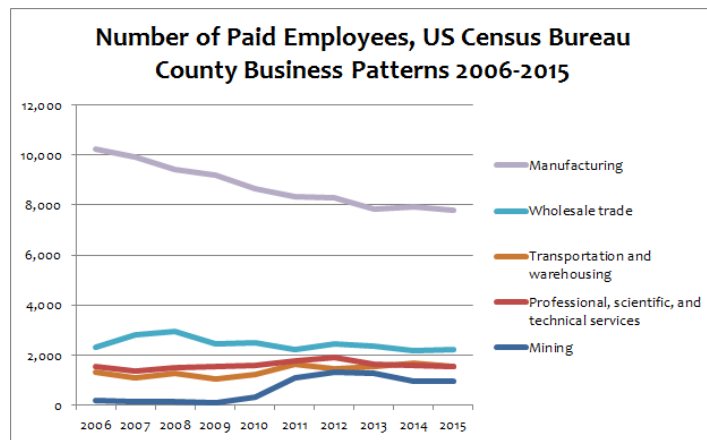
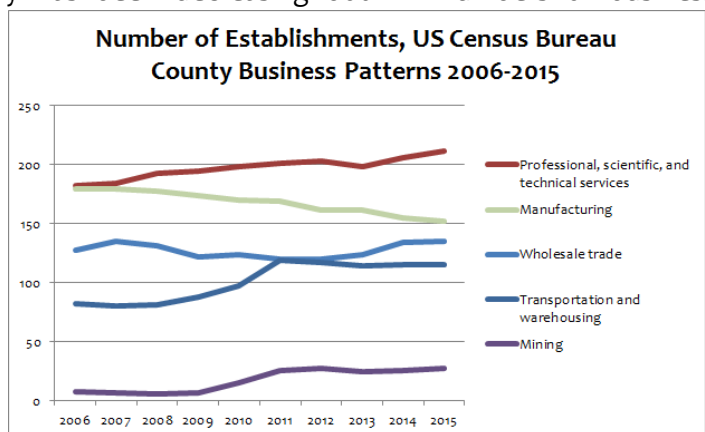
and possess decision-making over zoning matters with county comment provided in those areas. It is important to state that all land use areas of Lycoming County are zoned.

Economic Development

Historically, Lycoming County developed in response to demand for lumber. More recently, steel fabrication, manufacturing, plastics-related industry, outdoor recreation and tourism, and natural gas extraction have become more prominent. Agriculture has also been a constant, major component of the region's economy. Approximately 29% of Lycoming County is currently zoned for agricultural use. The Williamsport metropolitan area, in general, and the City of Williamsport, in particular, play host to major elements of federal, state and county governments, including courthouses and the county prison and to major educational and healthcare facilities.

Industrial Development

According to [US Census Bureau County Business Patterns](#) data from 2008 to 2015, the manufacturing sector of the Lycoming County economy has been decreasing both in numbers of business establishments and in the number of paid employees. Despite these overall decreases, manufacturing is a large and critical component of the local economy and Lycoming County is home to one of the top freight generating areas in the state of Pennsylvania in the Reach Road industrial area in the city of Williamsport. There have also been increases in the number of wholesale trades business establishments and professional, scientific, and technical business establishments. According to current Lycoming County land records, there are approximately 5,600 acres of land currently zoned for industrial use within the growth areas of the county.



Perhaps the most intriguing trend present in the US Census County Business Patterns data is a steady increase in both the number of business establishments and paid employees in the transport and warehousing sector of the economy. Lycoming County is extremely well situated to serve as a shipment, fulfillment, and logistics center for much of the Northeast and Great Lakes regions of the United States. There are 19 metro areas with populations greater than

500,000 within 250 miles of Williamsport. These metro areas have a combined population of nearly

50,000,000. That is approximately 1 in every seven individuals in the United States. This sector of the economy was also specifically identified as a strong and growing freight generator in the 2016 Pennsylvania Comprehensive Freight Movement Plan. Warehousing and distribution were the largest freight commodities by value in the central Pennsylvania region of the state and projected to remain as such until at least the year 2040.



Major Metro Areas with population over 500,000 Located Within 250 Miles of Williamsport	Population (2010 Census)
New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area	18,897,109
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metro Area	5,965,343
Washington-Arlington-Alexandria, DC-VA-MD-WV Metro Area	5,582,170
Baltimore-Towson, MD Metro Area	2,710,489
Pittsburgh, PA Metro Area	2,356,285
Cleveland-Elyria-Mentor, OH Metro Area	2,077,240
Buffalo-Niagara Falls, NY Metro Area	1,135,509
Rochester, NY Metro Area	1,054,323
Bridgeport-Stamford-Norwalk, CT Metro Area	916,829
Albany-Schenectady-Troy, NY Metro Area	870,716
New Haven-Milford, CT Metro Area	862,477
Allentown-Bethlehem-Easton, PA-NJ Metro Area	821,173
Springfield, MA Metro Area	692,942
Poughkeepsie-Newburgh-Middletown, NY Metro Area	670,301
Syracuse, NY Metro Area	662,577
Youngstown-Warren-Boardman, OH-PA Metro Area	565,773
Scranton--Wilkes-Barre, PA Metro Area	563,631
Harrisburg-Carlisle, PA Metro Area	549,475
Lancaster, PA Metro Area	519,445
TOTAL	47,473,807

Tourism and Outdoor Recreation

Lycoming County serves as a convenient gateway to the [PA Wilds region](#), a tourism promotion region in northcentral Pennsylvania. According to Pennsylvania Department of Conservation and Natural Resources data, Lycoming County has 295 miles of hiking trails, 202 miles of biking trails and routes, and about 250,000 acres of public lands. There are 16 public boat launches according to Pennsylvania Fish & Boat Commission information. The county also contains numerous historic and cultural resources, not the least of which is the annual Little League World Series and the headquarters of Little League International. Because of its central location in the northeast, Lycoming County would be a natural site for large events such as sports tournaments and music festivals.

According to the 2017 Outdoor Industry Association report [The Outdoor Recreation Economy](#), outdoor recreation creates \$887 billion in consumer spending annually and contributes to the creation of 7.6 million jobs in the United States. 10% of the spending was reported to have occurred in the Middle Atlantic states including Pennsylvania. These huge spending numbers indicate a national appetite for the recreational resources offered in Lycoming County. It is likely that this sector of the economy will continue to grow.

Agriculture

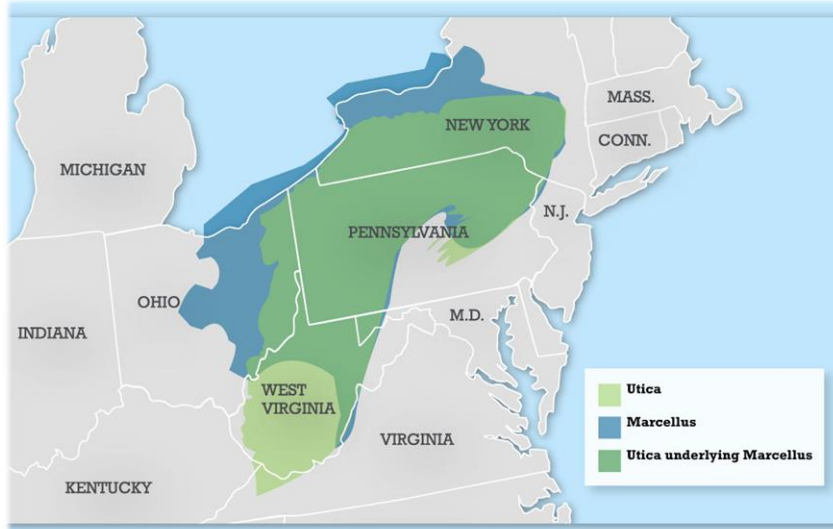
Every five years, the United States Department of Agriculture conducts a “[Census of Agriculture](#).” The most recent census results available during the preparation of this plan were acquired in 2012. The results of that census reveal the large to which agriculture contributes to the economy of Lycoming County. In the 2012 Census of Agriculture, Lycoming County had 1,207 farms with a total area of 158,462 acres. This represents a stunning 20% of the total land area of the county. Most encouragingly, from 2007 to 2012, farms in Lycoming County saw a 35% increase in the market value of the products they sold. The total value of agricultural products produced in Lycoming County in 2012 was \$72,202,000. The major commodities produced in 2012 in Lycoming County by value were grains, greenhouse/floriculture, dairy products, and hogs/pigs.

As part of the central region of the Commonwealth, Lycoming County as identified in the Pennsylvania Comprehensive Freight Movement Plan as an area where growing international demand for United States food products would produce slow and steady growth in the agriculture industry with strong ties to a growing segment of the economy devoted to producing prepared foods.

Marcellus Shale Natural Gas Exploration

Background

The largest single economic impact to Lycoming County since the lumbering boom over a century ago is the emergence of Marcellus Shale natural gas exploration. The Marcellus Shale gas formation and its underlying Utica Shale is abundant in natural gas resources. In fact, the Marcellus gas play is estimated to be the largest natural gas find in the nation and second largest globally. Stretching



across Pennsylvania, New York, West Virginia, Ohio and Maryland, the United States Geological Survey estimates the formations total area to be around 95,000 square miles, ranging in depth from 4,000 to 8,000 feet containing more than 410 trillion cubic feet of natural gas supplying the nation's energy needs for generations to come. Technological advances attributed to horizontal drilling paired with hydraulic fracturing have allowed

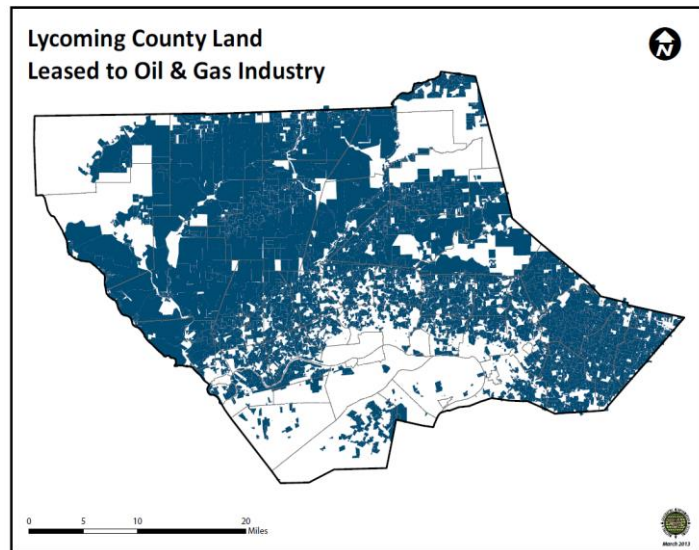
energy companies to harvest natural gas in a much more efficient and profitable manner in relation to traditional vertical well drilling techniques.

Lycoming County has a history of energy production attributed to timber harvesting as part of the lumbering boom as well as coal mining operations, however until 2007 there was a very limited

amount of conventional oil and gas drilling operations underway. The first Marcellus Shale natural gas well was drilled that year in Cogan House Township. Drilling then rapidly expanded to a level where Lycoming County witnessed the highest number of wells drilled during 2012 among all counties in Pennsylvania. (Approximately 40 PA counties are included as part of the Marcellus Play). Despite this intense level of gas exploration, it is recognized that this new industry is still in its early growth stage with continued drilling and gas production likely to occur for decades, although perhaps not at the remarkable levels previously seen in the past five years.

Much of the rapid development of Marcellus wells was attributed to more profitable natural gas commodity prices, need for drilling due to the value and expiration of current land leases along with industry competition. This fact, combined with the current volatile nature of fluctuating natural gas commodity prices creates challenges in establishing meaningful industry activity trends and predicting future industry activity level forecasts for planning purposes. Potential changes to federal and state regulations on natural gas exploration along with changes to energy consumption patterns among residential, commercial and industrial sources are also among key the factors affecting the future growth of this industry. Finally, industry shifts between development of the “dry gas” portion of the Marcellus and the “wet gas” areas in Western PA, Ohio and other plays throughout the nation due to profitability considerations will also continue to affect future drilling levels in Lycoming County.

The impact of natural gas drilling on the landscape of Lycoming County is quite evident when considering that, according to the most recent information available, approximately 60% of the County’s total land area is currently under land lease for gas exploration which comprises about 691 square miles. Given the size of the land area currently under lease, the potential exists for the future number of wells to exceed 3,000.



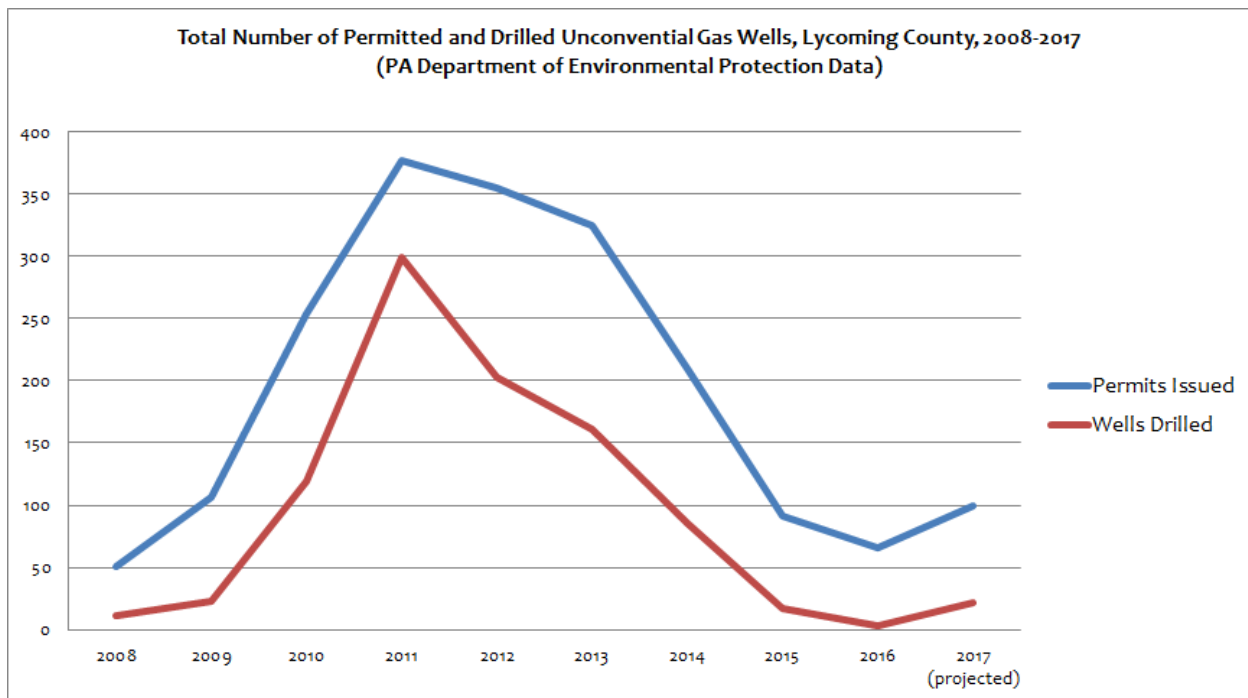
Marcellus Natural Gas Exploration Activity

Since the first Marcellus well drilling rig arrived in Lycoming County in 2007, the gas boom has transformed the entire Northcentral PA region with permitting and drilling of several thousand wells over a multi-county area including, Lycoming, Bradford, Tioga, Sullivan, Susquehanna, and Clinton Counties. Impacts from gas exploration are widespread and far reaching touching upon virtually every aspect of

everyday life in the region. This section of the plan will provide an overview of Marcellus activity with an emphasis on multi-modal transportation system infrastructure impacts, as this is a transportation plan, however it should be recognized that numerous other infrastructure impacts have occurred affecting available and affordable housing supply, water and sewer infrastructure, schools, pipeline development to name a few.

In terms of monitoring gas well permitting and drilling activity, the [PA Department of Environmental Protection](#) maintains an updated database that provides names and locations of well sites. Further, the Lycoming County Department of Public Safety maintains a supplementary database where all well sites receive a physical location address primarily to enhance emergency 911 response capability in the event of safety related incidents since the vast majority of gas wells are located in remote areas.

From 2008 to 2017, both the number of DEP permitted gas wells and drilled wells rapidly increased and then decreased as noted in the graph below. There has been a noticeable uptick in permitting and drilling of unconventional gas wells in Lycoming County in 2017. WATS staff will continue to monitor natural gas well drilling activity to assess and anticipate possible future impacts.

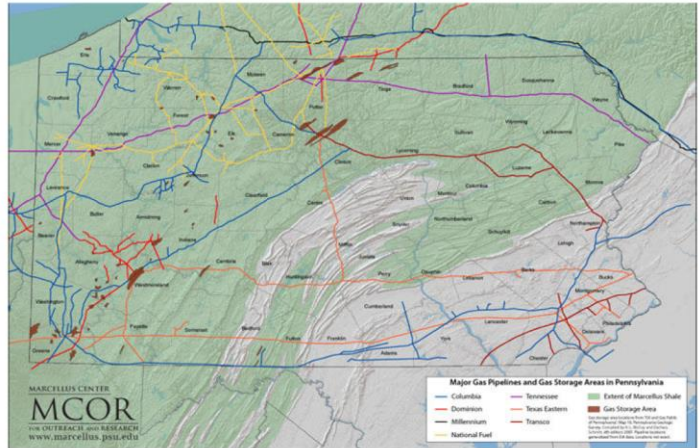


Infrastructure Impacts from Gas Drilling Activity

There are several major natural gas transmission pipelines in PA including the Transco pipeline that traverses the heart of Lycoming County in an east-west direction. Hundreds of miles of gathering lines are under development throughout the county.

In terms of natural gas well development, each well pad typically uses about 3-5 acres of land with 6-8 wells per pad. The pad development occurs over a 4-6 week period. Approximately 5,000 tons of

aggregate are needed during well pad construction generating 300-400 truck trips. Once a pad is constructed well drilling operations involve transportation of more equipment, water and cement generating another 150-200 truck trips over a 4-5 week period. Finally, after the well is drilled and the fracking operation resumes an additional 800-1,000 truck trips are needed to transport 3-6 million gallons of water and frack sand to the well location over a 1-2 week period which totals 1,250-1,600 cumulative truck trips per pad site for construction of the



2-3 month well pad development, well drilling and gas fracking production process. Obviously, this level of truck and employee traffic occurring largely on the rural roads creates substantial impacts given the weight, size and frequency of vehicles on roads and bridges that were not originally designed or built to accommodate such intense heavy hauling activity.

To properly address impacts of heavy hauling, Title 75 and 67 of the PA Motor Vehicle Code along with PennDOT Publication 23 establishes laws, regulations and policy governing the posting of vehicle weight and size restrictions for roads and bridges and authorizing bonding to secure financial security from heavy haulers to correct damages caused by their heavy hauling activity. The [State Posting and Bonding Program](#) manages vehicle weights over 10 tons and less than 40 tons for roads and bridges unable to support heavy truck traffic. In PA, if a road or bridge cannot structurally support 40 ton loads it should be posted for the appropriate weight limit based on engineering analysis.

According to Section 189.4 of the PA Motor Vehicle Code, “No over-posted weight vehicle, shall be driven on a posted highway with a gross weight in excess of the posted weight limit unless the posting authority has issued a permit for the vehicle or vehicles in accordance with this section.” The posting authority must follow proper procedures such as conducting an engineering study to determine the appropriate weight limit for the road or bridge, providing required public notice, notifying law enforcement and installing appropriate signage. PennDOT approves posting and bonding on State-owned highways while local municipalities approve posting and bonding on their locally owned roads, however municipalities must follow the same PA Motor Vehicle Code when posting and bonding locally owned roads and bridges to be able to enforce weight limits and issue heavy hauling permits. Various types of permits are issued to heavy haulers which include:

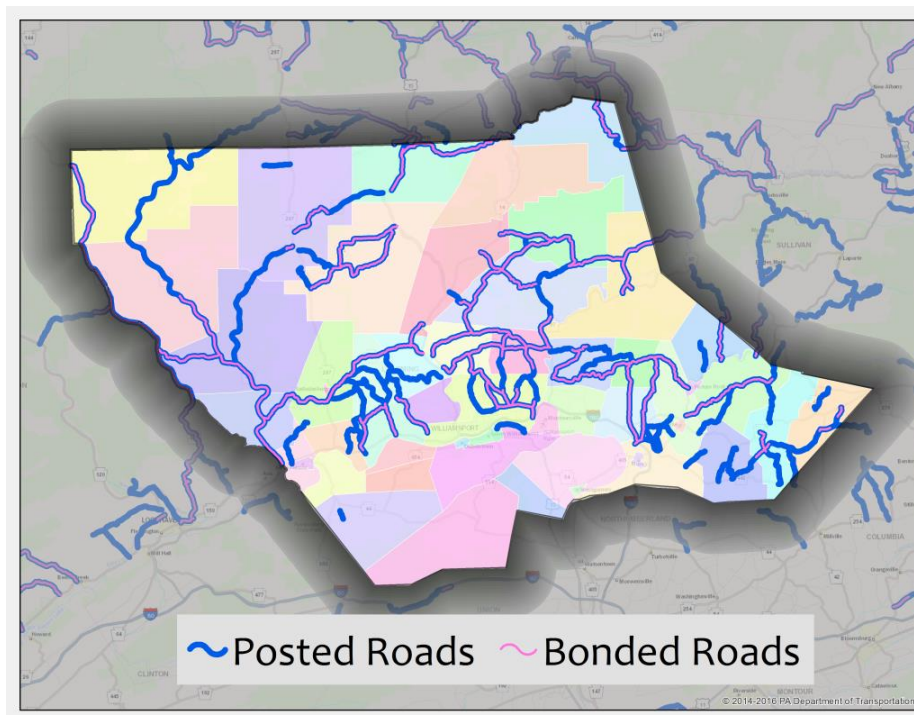


- Type 1 permitting one truck on one travel route.
- Type 2 permitting multiple trucks on one travel route (Most Marcellus activity)
- Type 3 permitting one truck on multiple travel routes.
- LoLD permitting multiple trucks on multiple routes

An excess maintenance agreement is executed between the road posting authority and heavy hauler which establishes an initial road inspection, excess maintenance responsibilities and payments to make necessary repairs, approved road maintenance plan and roadway condition surveys for heavy users. The hauler provides financial security based on permit type ranging from \$ 6,000 / mile for unpaved roads or \$ 12,500 / mile for paved roads under Type 1 and 2 permits. Type 3 permits are county/municipality wide for \$ 10,000. Certain types of local traffic can be exempt from posting and bonding requirements. According to the most recent data supplied by the PA Department of Transportation Bureau of Maintenance and Operations there are currently 382 miles of PennDOT posted state-owned roadways which represents about 50% of total state-owned road mileage in Lycoming County. Currently, there is a total of 225 miles (25%) of bonded state-owned roads in Lycoming County. Unlike the state-owned road system, there is not an up to date, comprehensive or reliable database that exists for locally-owned roadways that are posted and bonded in Lycoming County which is typical across the Commonwealth. Rather, each municipality establishes its own database system. The County does have very limited and outdated local road posting and bonding information based on LCPC outreach efforts, however there is not a high confidence level in this data so it will not be included in this plan. Municipal outreach to collect this data in the past was largely

unsuccessful as many municipalities were not responsive in providing the requested data. There are 3 state-owned bridges and 27 locally owned bridges that are posted for weight limits in Lycoming County. A more comprehensive discussion of the structurally deficient load posted bridges is provided in Chapter 3 of this Plan.

It should be noted that the Marcellus industry has spent millions of dollars maintaining and upgrading those state



and locally owned roads that have been posted and bonded in order to ensure these roads remain safe and passable and meet industry transportation needs and the overall pavement condition of these roads is generally improved as a result. However, a concern is that the major state-owned roads that are not posted and bonded are receiving accelerated life cycle pavement deterioration

due to the substantial increases in truck traffic that may require more frequent and costly treatments.

Marcellus impacts on the transportation system are not just limited to roads and bridges. Other transportation modes such as air service, rail service and public transit have experienced significant positive impacts. These impacts are summarized herewith by transportation mode. (Chapter 3 of this Long Range Plan will provide a more detailed overview of all Lycoming County multi-modal facilities.)

Impacts on Other Modes

Because Marcellus Shale related natural gas exploration and drilling activity peaked in 2011-2012, we have a very clear picture of the demands that resurgence in activity would place on our transportation system.

The Williamsport Regional Airport is the only commercial airport in Lycoming County serving a 13 county service area in Northcentral PA. At the peak of Marcellus development, enplanements at the airport rose from approximately 18,000 annual passengers to over 26,000 annual passengers at the end of 2012 representing a 44% increase. At that time, about 50% of total passenger enplanements were Marcellus related customers.



The Lycoming Valley Railroad (LVRR) is the short line railroad primarily serving the Marcellus business rail service activity. The railroad facilities are owed by the SEDA-COG Joint Rail Authority and operated through a contract with the North Shore Railroad Company. Again, similar to the airport, the Lycoming Valley Railroad has witnessed a

substantial increase in rail freight traffic during the peak period of Marcellus gas exploration. Approximately 20% of all rail freight carloads handled by the LVRR were Marcellus related freight at that time.

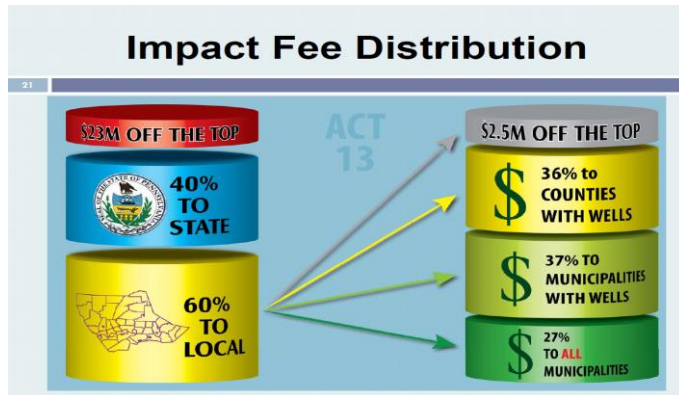
The arrival and expansion of the Marcellus Shale gas industry has also increased demands and pressures on the existing fixed route transit system, River Valley Transit. The substantially increased presence of gas workers has saturated local hotels and increased the number of riders utilizing the local and regional transit system. In 2012, River Valley Transit recorded over 1.4 million passengers which is an all-time record.

A more in-depth overview of air service, the rail system, and transit in Lycoming County will be provided in Chapter 3.

Act 13 Funding

To help address Marcellus related impacts, such as transportation system impacts, the Pennsylvania General Assembly approved Act 13 which provides funding assistance to Counties, local municipalities and other state agencies (such as PennDOT) through impact fees levied on natural gas drillers. The funds are administered through the Pennsylvania Public Utility Commission (PUC). This

funding will be helpful to address such impacts, however in no way should it be regarded as fully sufficient to cover all associated infrastructure impacts created by the industry. During the peak periods of gas development in Lycoming County, Act 13 funds were used in several major transportation projects to improve infrastructure. Projects included \$ 1 million from the County's allocation of Act 13 funds for the Williamsport Regional Airport Terminal Building Replacement project and \$ 117,200 for the City of Williamsport to reconstruct and widen Reach Road, the main local road serving the growing Williamsport Industrial Park and Newberry Rail Yard. These facilities are high County priorities and have been substantially impacted by natural gas extraction related activity. The County anticipates making continued transportation investments through Act 13 if gas development activity increases in the future.



Environmental, Natural, and Cultural Resources

Lycoming County is rich in scenic and natural resources, including mountains, woodlands, wildlife, vegetation, agriculture and water sources. These resources form unique and scenic landscapes. Natural resources are discussed in two broad categories: water resources and land resources. The major development centers of the county are located along the West Branch of the Susquehanna River. An abundance of open space lands exist adjacent to developed communities as well as within the floodplain.

Water Resources

Rivers and Streams

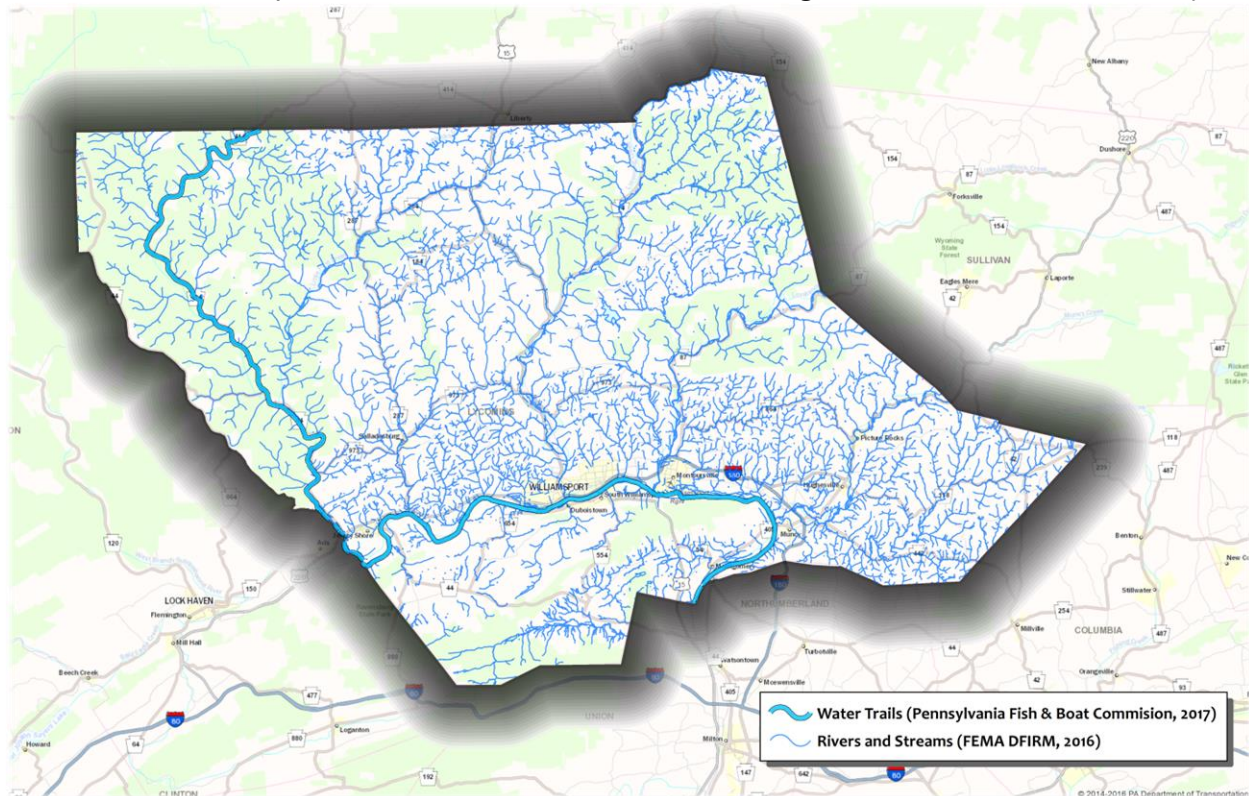
Lycoming County is completely situated within the Susquehanna River Basin. The major water body, the West Branch of the Susquehanna River, runs almost horizontally through the county for a distance of 38 miles. This river collects all the water from numerous streams and tributaries (total 2,200 miles in length) formed within the surrounding mountains. The water resource of the river is the largest in the county by a wide margin, and prime scenic areas and farmlands are found along much of the river frontage. Major tributaries include Pine Creek, Larry's Creek, Lycoming Creek, Loyalsock Creek, and Muncy Creek. Lycoming County waters support various fish species. Rainbow, brook and brown trout, panfish, large and small mouth bass, and muskellunge live in rivers, streams, and lakes throughout the county, and are highly valued by fishermen throughout the region. The six watersheds in Lycoming County are illustrated below in term of their size.

Watershed	Acres	% of Watershed within Lycoming Co
Pine Creek	633,867	33.8%
Larrys Creek	56,958	100%
Lycoming Creek	173,079	81%
Loyalsock Creek	317,689	33.1%
West Branch Susqueha	270,783	1.54%
Muncy Creek	131,179	64.9%

Each watershed is a complex network of natural resources – topography, water, soil, flora, fauna, etc. A watershed is an area of land where all of the underground and surface water goes into the particular place, such as a lake or river. When surface waters run downhill, they carry all kinds of non-point source pollution, (NPS), sediments and other materials into our hydrologic system depositing in streams, lakes, wetlands and groundwater. EPA has identified NPS pollution as one of the most significant contributing factors in the decline of watersheds and water quality. The West Branch Susquehanna River is a watershed that is impaired by NPS pollution, primarily as a result of farming, disturbed riparian buffers, and land development.

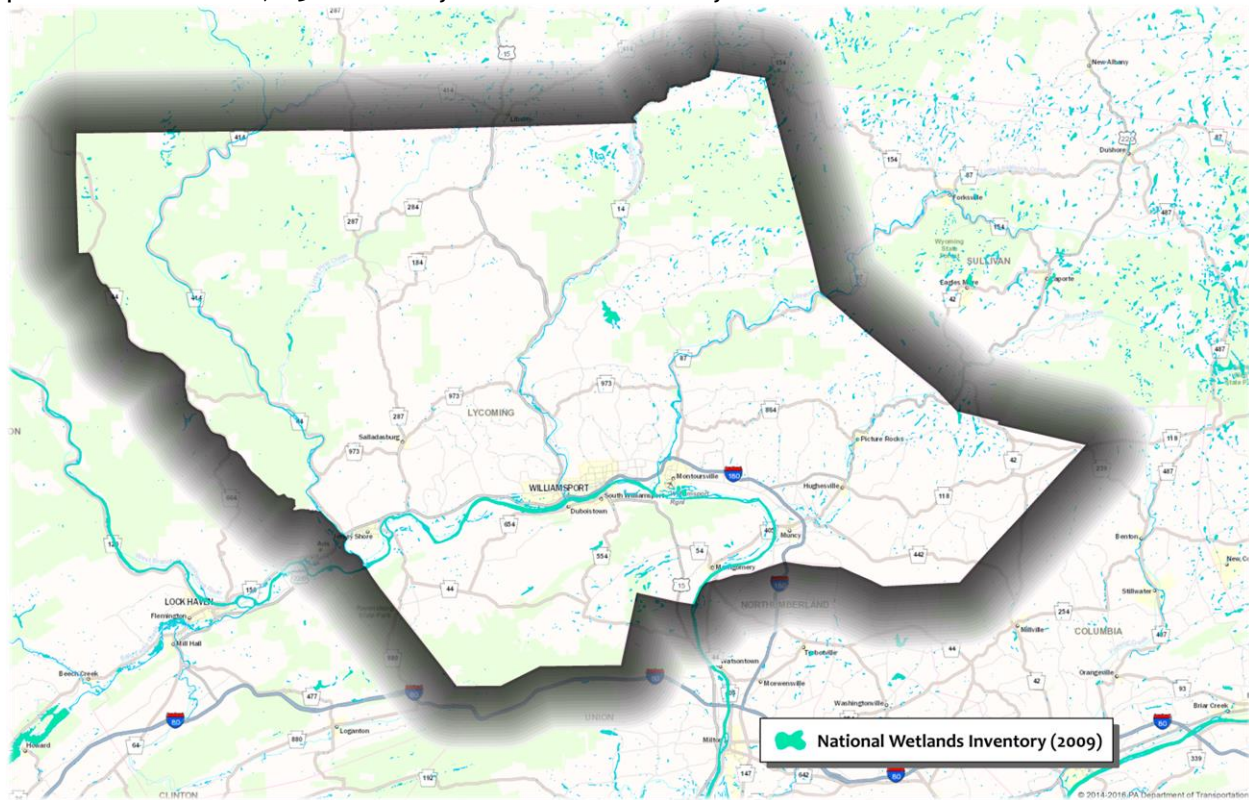
Streambanks have been eroding and collapsing under pressure from seasonal stormwater and floodwaters. The natural strength of the streambanks has been weakened by management practices such as tree removal and uncontrolled livestock access to the waterway. Lycoming County encourages streambank preservation programs and preservation of natural undeveloped water retention areas. Lycoming Creek and Big Bear Creek, a tributary to Loyalsock Creek have also been restored through applied theories of fluvial geomorphology where natural channel design techniques have been used to direct stream flows and improve sediment and gravel carrying capacity, thus improving water quality and stream habitat, however major recent floods have caused damage to such stream improvements. Acid mine drainage from Tioga County into downstream Lycoming County watersheds have also been an issue where remediation efforts have been underway for some time.

The West Branch Susquehanna River and Pine Creek are the designated water trails in the County.



Wetlands

Lycoming County encompasses 4,645 acres of wetlands or about .6% of total county acreage. Wetlands are important habitats necessary for the survival of a host of aquatic and terrestrial species and integral parts of the hydrologic system necessary for the maintenance of water supplies, water quality and flood control. Three indications for wetlands include hydric soils, plants adapted to life in wet environments, and the presence of water during growing season. The National Wetland Inventory areas have been identified, and wetlands identified as part of the Natural Area Inventory should be included as part of open space protection planning due to their impacts on water quality. The National Wetlands Inventory maps are general indicators of wetlands in the County; site specific determinations of wetlands should be conducted as part of the transportation project development process. There are 12,613 acres of hydric soils in the county.

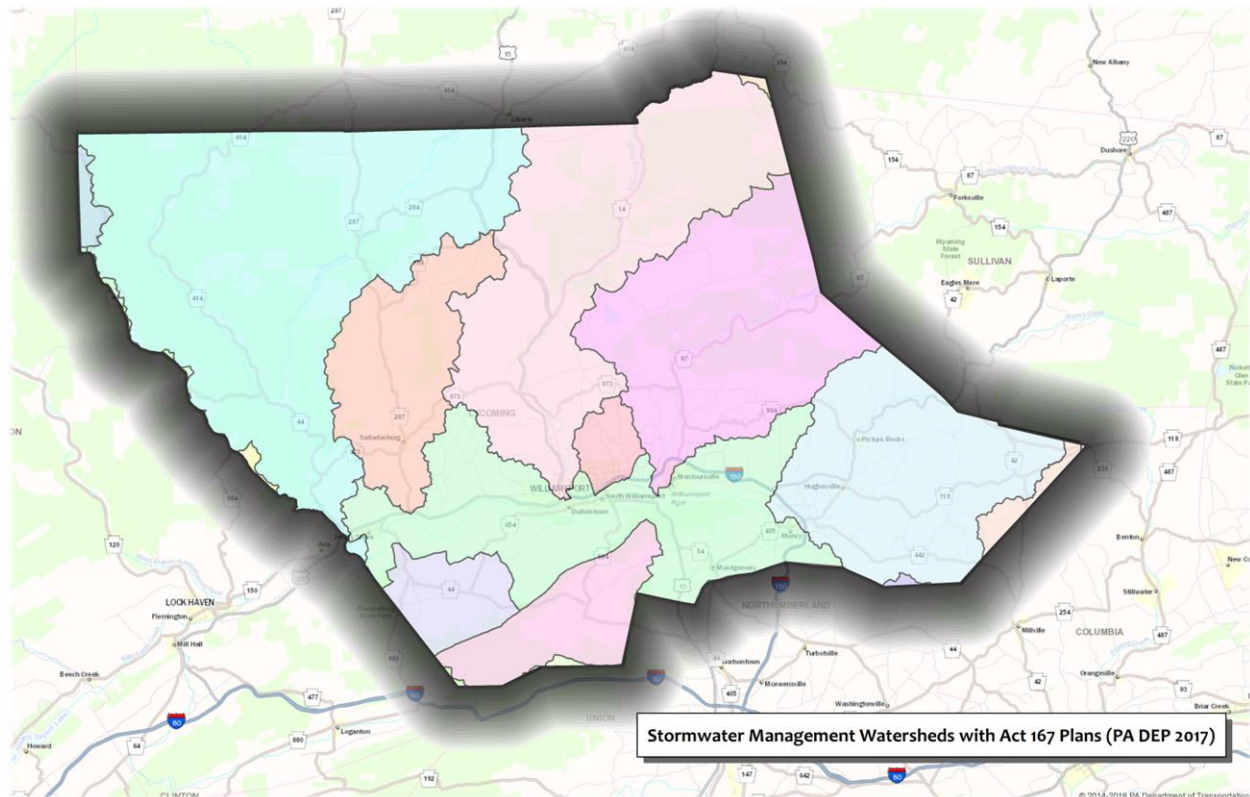


Groundwater

In terms of groundwater, the glacial lake and stream deposits are the most productive sources in Lycoming County. These deposits underlay the majority of industrial areas in the county and have been exploited for large supplies of water at numerous locations. Much of Lycoming County relies on groundwater as a source of drinking water, therefore protection of this resource is essential to preserve the quality of life in the county. The quality of the natural groundwater is not high in many areas. Although well water may be potable, often it is not palatable without treatment (e.g. sulfur taste and odor). Pollution of groundwater from non-point sources, such as agriculture, has not been identified as problematic in a widespread degree. Historically, groundwater resources have provided an adequate water supply to wells in the region. However, in recent years, water supply has not been as reliable.

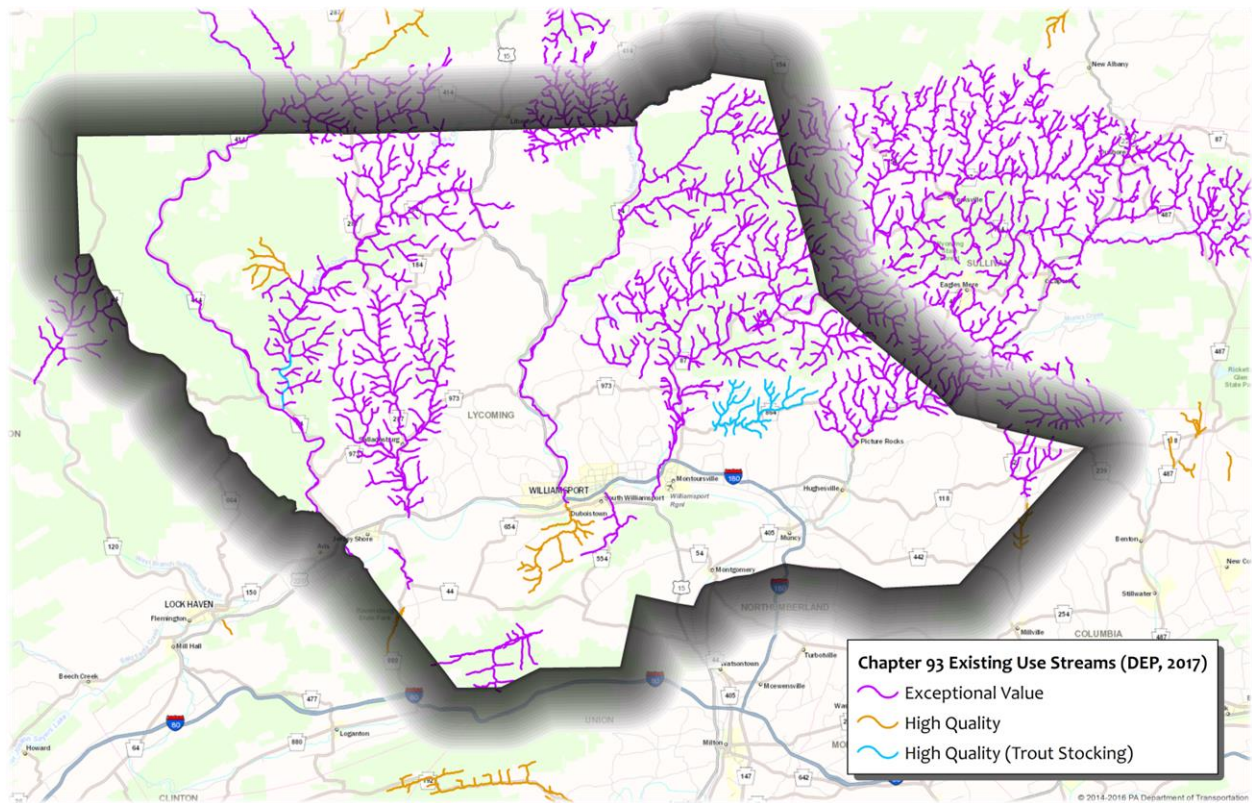
Stormwater Management

A number of watersheds within the county are experiencing stormwater management problems, some of which are severe. This contributes to flood damages, degraded water quality, and a reduction in the biodiversity. Design of controls for managing stormwater should incorporate Best Management Practices, (BMPs), and infiltration to improve the quality of discharges and runoff. PA Act 167 requires counties to prepare stormwater management plans that provide standards for controlling runoff from new development on a watershed basis. The County has completed an Act 167 Comprehensive County-wide Stormwater Management Plan with implementing ordinance in 2011.



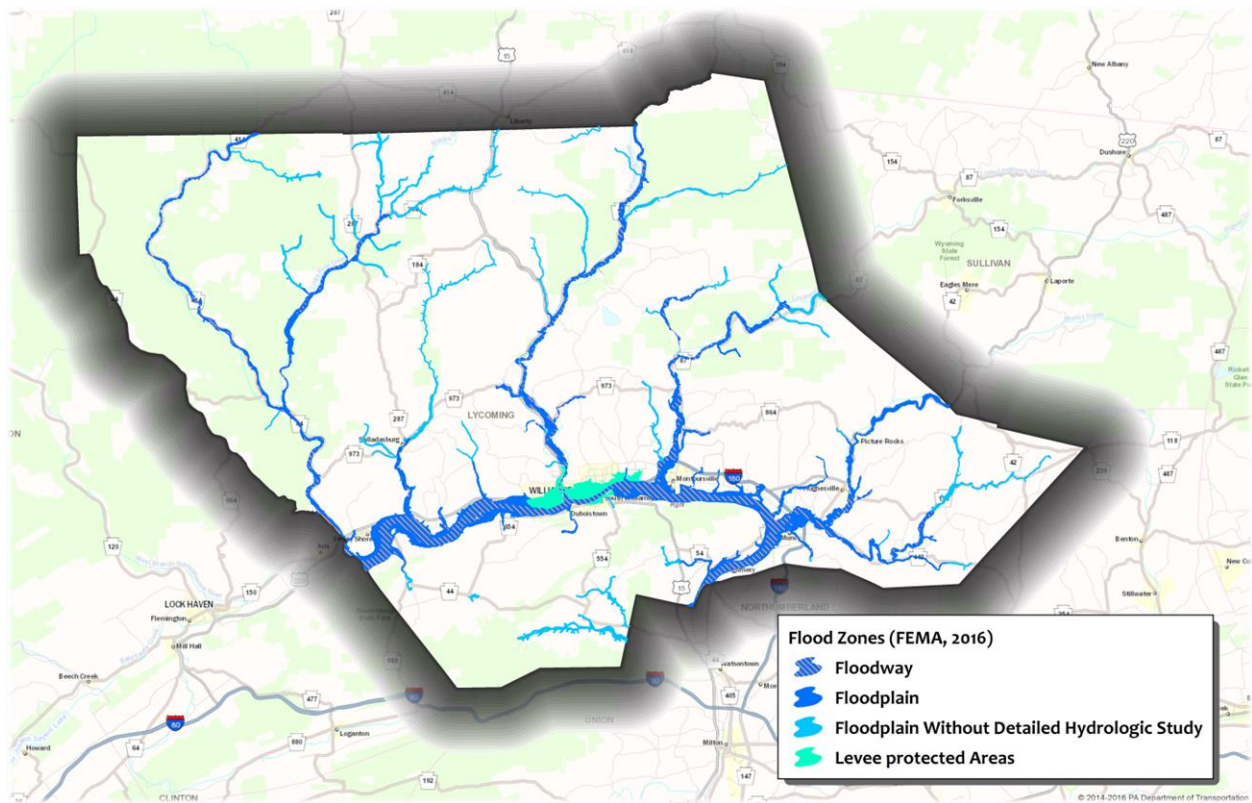
High Quality / Exceptional Value Watersheds

Lycoming County has 193 high quality / exceptional value streams encompassing 1,240 miles where the county supports watershed overlay provisions especially for the Susquehanna River, Loyalsock, Lycoming, Pine and Muncy Creek corridors along with the Mosquito Creek watershed and lands owned by the Williamsport Municipal Water Authority. These watersheds are excellent fresh water fisheries having the benefit of good water quality, which supports warm water species and cold water species. Native brook trout inhabit the cold-water streams, while large and small mouth bass and muskies populate the warmer waters. A large portion of the Appalachian Plateau, which is located in the County, has been designated as either exceptional value or high quality watershed under PA Chapter 93 Water Quality Standards. There are over 117 miles of wild trout streams and 154 miles of stocked trout streams throughout the county.



Floodplains

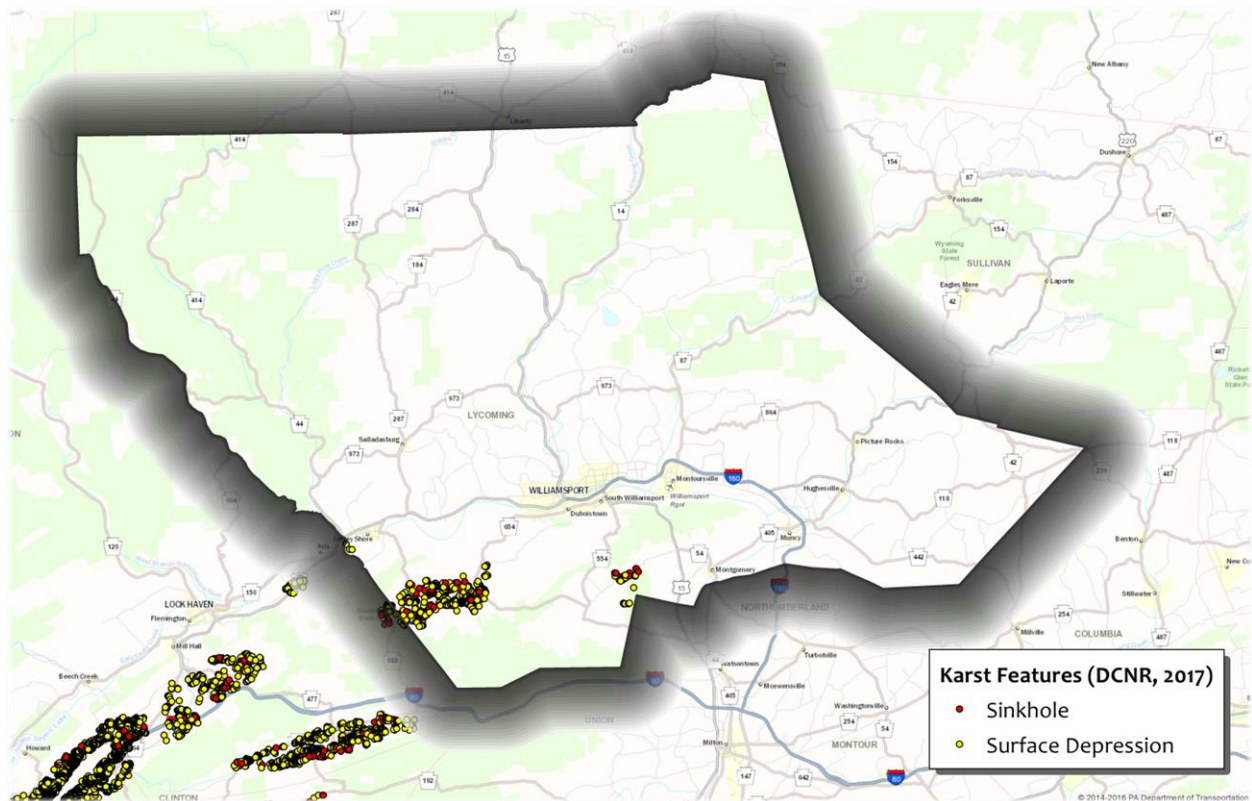
Because of the vast network of 2,200 miles of the river and streams, many areas of the county are situated in the regulatory floodplain. Because floodplains are relatively flat and have good soils, they are convenient for development. However, natural flooding cycles can cause tremendous damage to man-made structures. Therefore, accurate delineation and floodplain management practices are imperative to reduce hazards and ensure a healthy ecosystem. Lycoming County is active in regulating further expansion of existing floodplain development and pursues funding for property buyouts and retrofits in the floodplain.



Land Resources

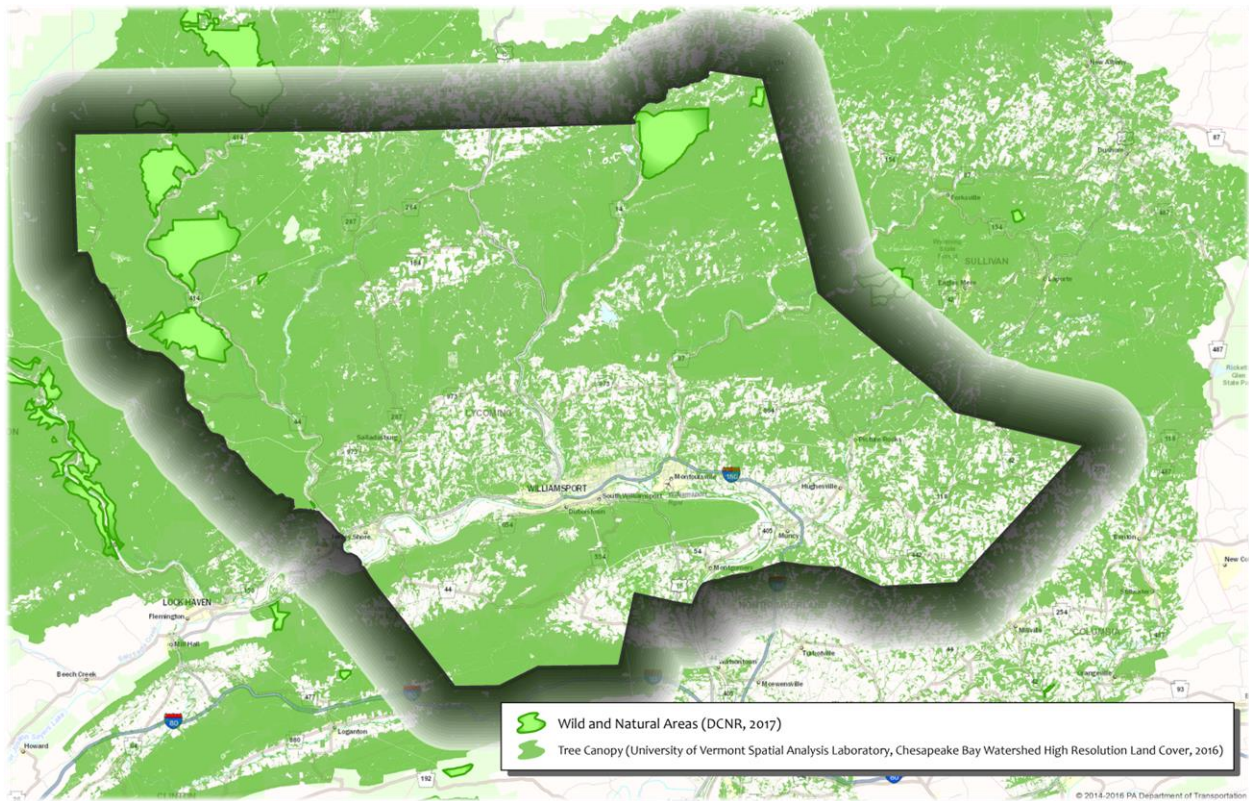
Topography

Lycoming County is located within two geomorphic provinces, the Appalachian Plateau Province and the Valley and Ridge Province. The Appalachian Plateau, differentiated by rolling hills dissected by steep stream valleys, is found north of the Susquehanna River. The Allegheny Front, the distinctive wall of mountains north of Williamsport, separates the two provinces. The Ridge and Valley Province, a series of sharp-crested ridges and narrow valleys, is found south of the Susquehanna River, extending in an arc from southwest to northeast across the central part of the state. Areas of steep slope mainly follow stream valleys, especially in the northern region beyond the Allegheny Front. Portions of the County's landscape are underlain by limestone based geologic formations that are susceptible to the formation of solution caverns and sinkholes. Also known as Karst topography, these areas are considered to be both hazardous, because of the danger of collapse, and beneficial because they provide unique habitats, mineral sources and recreational opportunities. A major sinkhole (Maple Hill Sinks) likely fed from underground springs in Brady Township near Elmsport periodically causes severe and prolonged flooding along State Route 2001 (Elmsport Rd) that shuts down a portion of the roadway and causes substantial detours disrupting the local community for uncertain periods of time.



Forests

In Lycoming County, more than 70% of the land area is forested. Over 60% of forest cover falls within the oak-hickory and associated varieties classification, the most common forest type in Pennsylvania. Maple-beech-birch and associated species are the second most prevalent. Other varieties include cherry, ash, white pine and hemlock. These areas serve many purposes including watershed protection, wildlife habitat, outdoor recreation, and a source of income from wood crops. It should be noted that forested open space performs the crucial role of stormwater absorption and groundwater recharge, which reduces the severity of flooding for downstream properties and urban communities. Lycoming County supports incentives for sound forest management and encourages development of forest stewardship plans to promote forest retention.

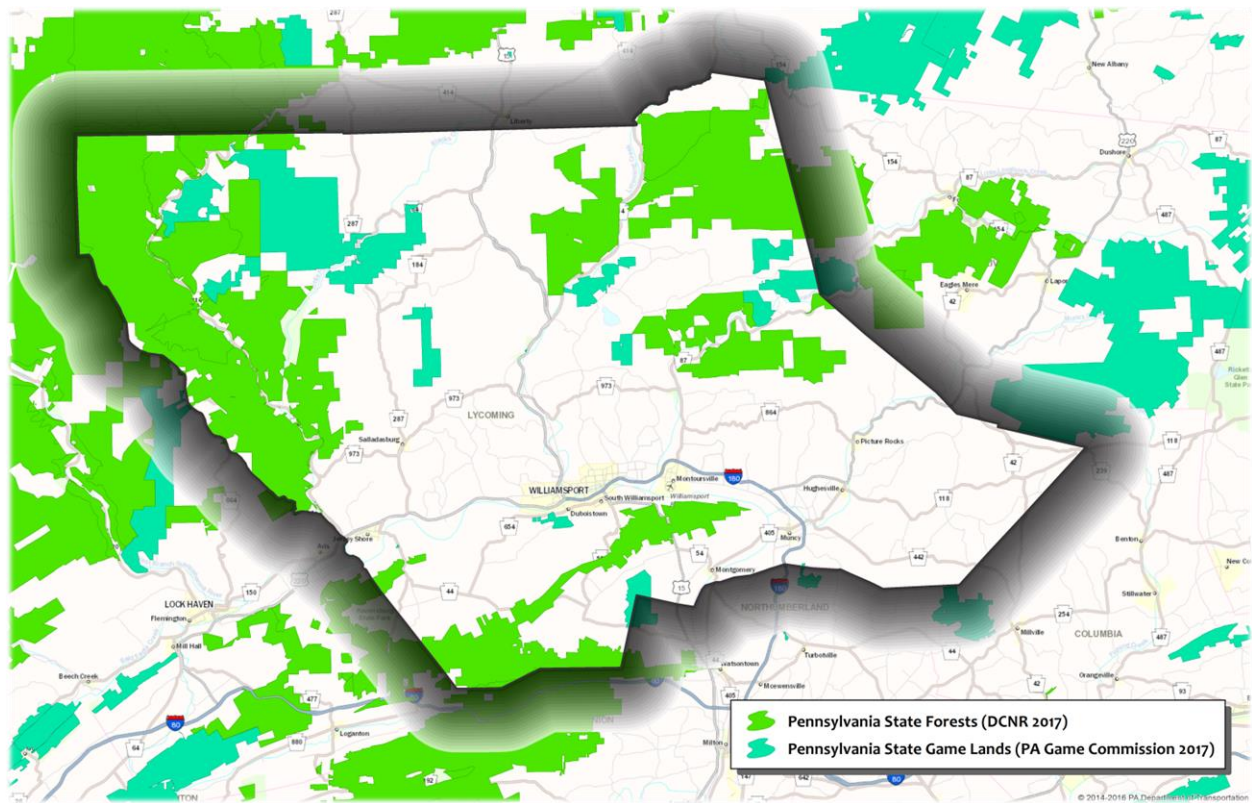


Wildlife

The large number of acres of forestland, waterways and open space land areas previously described support and abundance and variety of habitat. This habitat supports a variety of wildlife, including a variety of small birds and animals, big game animals, and many migratory birds. Game species, such as deer, black bear, turkey, grouse, pheasant and coyote, thrive in forest and forest edge habitats. Non-game species flourish as well including bobcat, otter, herons, bald eagles, osprey, hawks, and owls. The county supports wildlife protection through state agencies and local, private organizations.

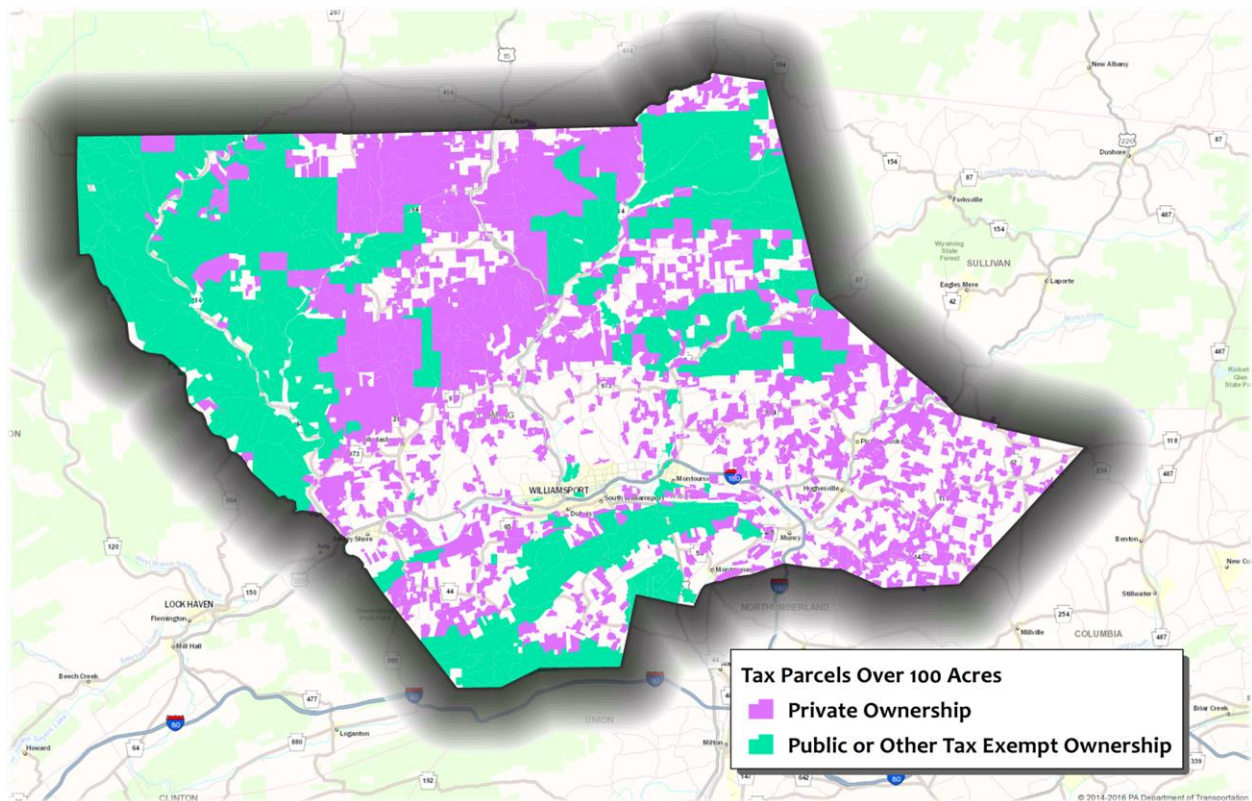
State and Federal Lands

There are extensive public land holdings in Lycoming County. These lands comprise more than 30% of the total land area within the County. A majority of the mountainous area is State Forest or State Game Land, especially in the northern portion of the county. The Tiadaghton State Forest is the largest of the state forests in the county with small portions of Sproul and Tioga State Forests also reaching into the county. Private development is not permitted under current State policy. Timber production on these lands is managed by the PA DCNR Bureau of Forestry and State Game Commission. There are natural gas exploration operations permitted and occurring on these lands but the primary use generally consists of outdoor recreation.



Large Parcel Landowners

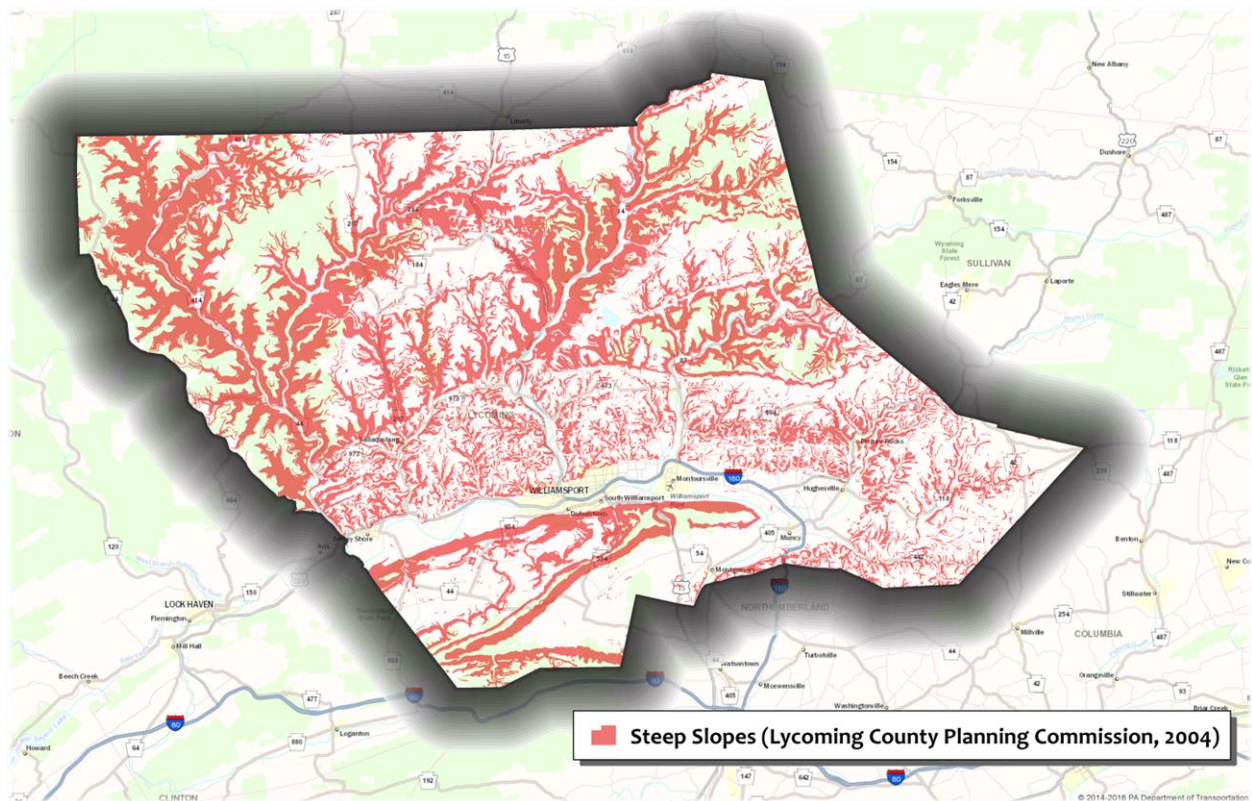
Land parcels of 100 or more acres comprise 66% of the total land area in the County with the majority of this acreage being State Lands and Hunting and Fishing Clubs. These areas have remained intact over many years and have not been the subject of development or subdivision, with the exception of agricultural farms.



Steep Slopes

A significant portion of the county has slope gradients equal to or in excess of 25%. A number of soils are highly sensitive to disturbance and development. The highly erodible soils are typically found on the steep slopes, which cover about 50% of the county land area. These soils are unstable under conditions of disturbance and pressure and contribute sediment to surface waters and can increase flooding.

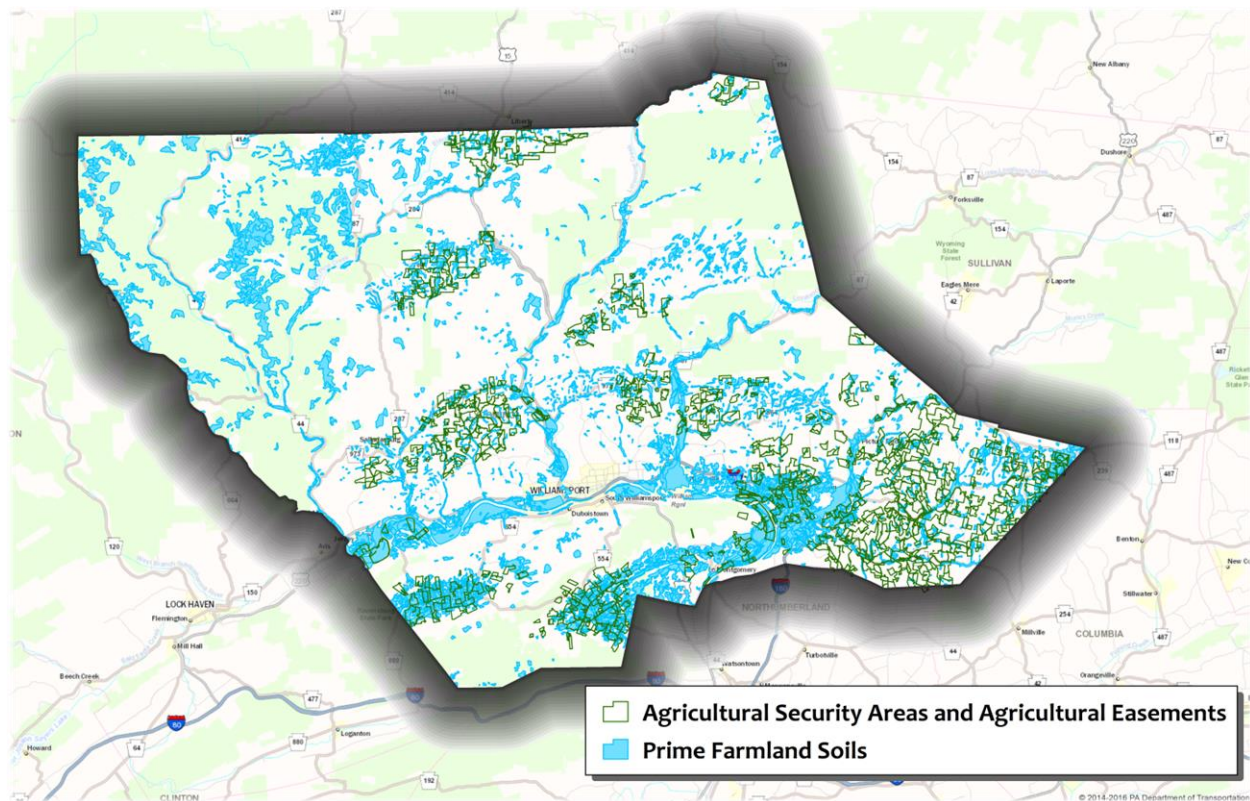
Although current zoning does not prohibit development in these locations, in most cases development plans are required to incorporate erosion and sedimentation controls and a soil stability analysis along with defining an aquatic resource buffer width graduated on the slope gradient.



Agricultural Soils & Preservation Efforts

Lycoming County has an abundance of agricultural Prime Farmland Soils currently in agricultural uses. These soils are well drained, however in many areas steep slopes are a limitation to development or agricultural uses. The Prime Farmland Soils produce the highest yields with minimal additional inputs. There are 106,000 acres of Prime Farmland Soils in the county which is 13% of total county land area. The next most productive soils are classified as Soils of Statewide Importance where 110,000 acres fall in this classification county-wide yielding another 14% of total county land area. Many farmland protection programs use soil classifications

The most popular form of agricultural protection throughout the county is the Clean and Green Program, in which 368,590 acres or 575 square miles are currently enrolled representing nearly half of all the land area in the county. However there are only limited acres enrolled in the Agricultural Security Area Program or permanently protected through easements. The agricultural landscape is most prominent in the eastern and southern regions of the County. Here, soils readily support crop production and pasturing. Lycoming County is continually active to identify farmland that should be permanently preserved for agricultural use considering soil quality and local paths of development and infrastructure availability in the identification and enrollment process to expand Agricultural Security Areas and Clean and Green Programs, where appropriate.



Historic, Archaeological, and Cultural Resources

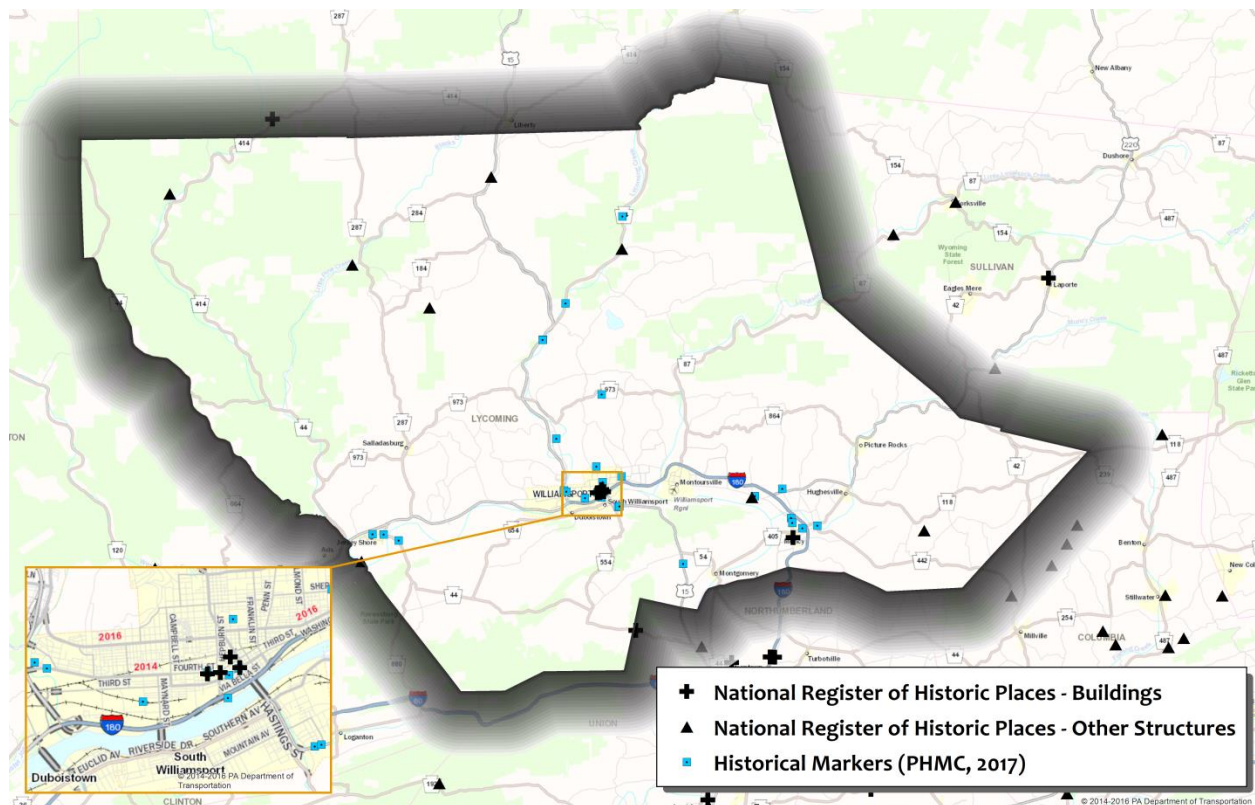
Lycoming County has many significant cultural, historic and archaeological resources that define our local heritage that should be protected. It is the policy of the county to conserve these resources, promote state and federal historic preservation programs locally through identification and application of historic properties to the PA Inventory and National Register of Historic Places eligibility list. There are 36 properties located throughout the county that are either eligible or listed on the National Register of Historic Places with 21 of these properties situated in the City of Williamsport. Further, the county encourages development of guidelines for historic site / district redevelopment with flexibility for conversion and adaptive re-use of historically significant structures, including use of Historic District Overlays, where appropriate. Williamsport Millionaires Row and the Muncy Historic Districts are excellent and among the most prominent examples of historic districts in the County with outstanding architectural and historic structures, many of which have been recently restored. In addition, there are also several Century Farms that have been held by the same family for over 100 years.

Historic Markers

Antes Fort
 Blooming Grove Dunkard Meeting House
 Bowman Field
 Capt. John Brady
 Carl E. Stotz
 Civilian Conservation Corps
 Dietrick Lamade
 Eagle Grange No. 1
 Fort Antes
 Fort Muncy
 Freedom Road Cemetery
 Julia C. Collins (? - 1865)
 Lycoming County
 Muncy
 Muncy Mills
 Pennsdale Meeting
 Peter Herdic
 Pine Creek Presbyterian Church
 Repasz Band
 Sheshequin Path
 Susquehanna Log Boom
 W. D. Crooks & Sons Door Plant
 Williamson Road
 Williamsport

National Register of Historic Places

Archeological Site 36 LY 37
 Bridge in Brown Township
 Bridge in Lewis Township
 Bridge in Porter Township
 Buttonwood Covered Bridge
 Cogan House Covered Bridge
 English Center Suspension Bridge
 Hart Building
 Herdic, Peter, House
 Houseknecht Farm
 Jersey Shore Historic District
 Lairdsville Covered Bridge
 Millionaire's Row Historic District
 Muncy Historic District
 Original Little League Field
 Reading-Halls Station Bridge
 St. James Episcopal Church
 U.S. Post Office
 Williamsport Armory
 Williamsport City Hall



The county also supports close coordination with archaeological protection organizations to inventory and protect sites of archaeological significance. The Ault site, which is located along the Susquehanna River near the Canfield Island archaeological site (Riverfront Park in Loyalsock Township) contains the remains of a fortified Native American village. It is Lycoming County's most significant archaeological site to date. Discovered in 1993, thousands of artifacts have been uncovered, some dating back 3,500 years. It is protected permanently by a conservation easement. In terms of major cultural resources, Lycoming County is blessed with excellent facilities and programs in visual and performing arts. The Williamsport Area serves as a major cultural arts and events center showcased by the Community Arts Center. The Williamsport Areas also has worldwide recognition as the origin and host for the Little League Baseball World Series as well as home of Bowman Field the second oldest functioning minor league baseball park in the nation. The Thomas T. Taber Museum and James V. Brown Library are other significant cultural facilities in Williamsport.

Transportation System Resiliency

In 2005, Lycoming County was the first county in the Commonwealth to work with the Federal Emergency Management Agency and PA Emergency Management Agency to prepare and adopt a comprehensive Hazard Mitigation Plan. The Plan was most recently updated in 2015. This plan identifies and prioritizes hazards that may affect the County and its municipalities, assesses vulnerability to these hazards, identifies mitigation actions that can reduce that vulnerability and develops strategies for implementing needed actions, including parties responsible for plan implementation.

The most common hazard occurrence that causes long term and costly recovery is major damage to transportation facilities attributed to major floods. However, strong storms producing snow and wind are increasingly causing acute disruptions in the transportation system. Floods are generally categorized based on the annual probability of a certain severity flood event. "Floodplain" is commonly understood to be all areas with at least a 1% annual probability of seeing a flood event. In Lycoming County, there have



been three flood events of a scale meeting or exceeding the 1% annual probability extent since 1996: the January, 1996 flood, the September, 2004 Tropical Storm Ivan flood and the September, 2011 Tropical Storm Lee flood. This last flood cause nearly \$ 50 million in public transportation infrastructure damages.

Lycoming County Emergency Management Approach

Emergency management is a comprehensive, integrated system of mitigation, preparedness, response, and recovery for emergencies and disasters of any kind. No public or private entity is immune to disasters and no single segment of society can meet the complex needs of a major

emergency or disaster on its own. The PA Emergency Management Services Code, Title 35, requires all political jurisdictions in the Commonwealth to have an emergency operations plan, (EOP), an emergency management coordinator, (EMC), and an emergency operations center (EOC). Lycoming County has met all these basic requirements and the EOC is located at the County Department of Public Safety headquarters at the Lysock View Complex north of Montoursville. The County EOP is an all-hazards plan that complies with the National Incident Management System, (NIMS) and is the basis for a coordinated and effective response to any disaster that may occur in the County. The Lycoming County Transportation Planner serves as the EOC Transportation Officer as the chief point of contact with all transportation agencies and emergency providers to ensure issues and unmet needs pertaining to transportation facilities and services, including evacuation during emergencies are addressed and properly coordinated.

The WATS MPO has long recognized the importance of integrating emergency operations planning into the transportation planning and project development processes. Considerable effort has been made to targeting improvements where needed to ensure major evacuation routes and emergency response highway routes are upgraded and kept in a good state of repair. ITS technologies discussed earlier in this Chapter are deployed to enhance emergency response. Bridge replacement projects carefully consider flooding conditions and new bridges are designed to improve hydraulic waterway capacity where appropriate. Bridge projects are never designed to worsen flood conditions.



The Williamsport Regional Airport plays a vital role as a primary emergency staging area for response and recovery efforts such as deployment of Civil Air Patrol, Military and Geisinger Medical Center Life Flight Operations which are now fully housed at the former State Police Hanger at the Airport. (Loss of the PA State Police helicopter due to state budget issues was strongly opposed by the Lycoming County Commissioners, our state legislators, Airport Authority, emergency responders and the community at large.) Despite its proximity to Loyalsock Creek and the Susquehanna River which caused airport runway flooding in all three recent major floods, the airport remained open to accommodate emergency operations. In terms of transportation security, the Williamsport Regional Airport currently meets or exceeds all Transportation Security Administration, TSA developed following the September 11, 2011 terrorist attacks.

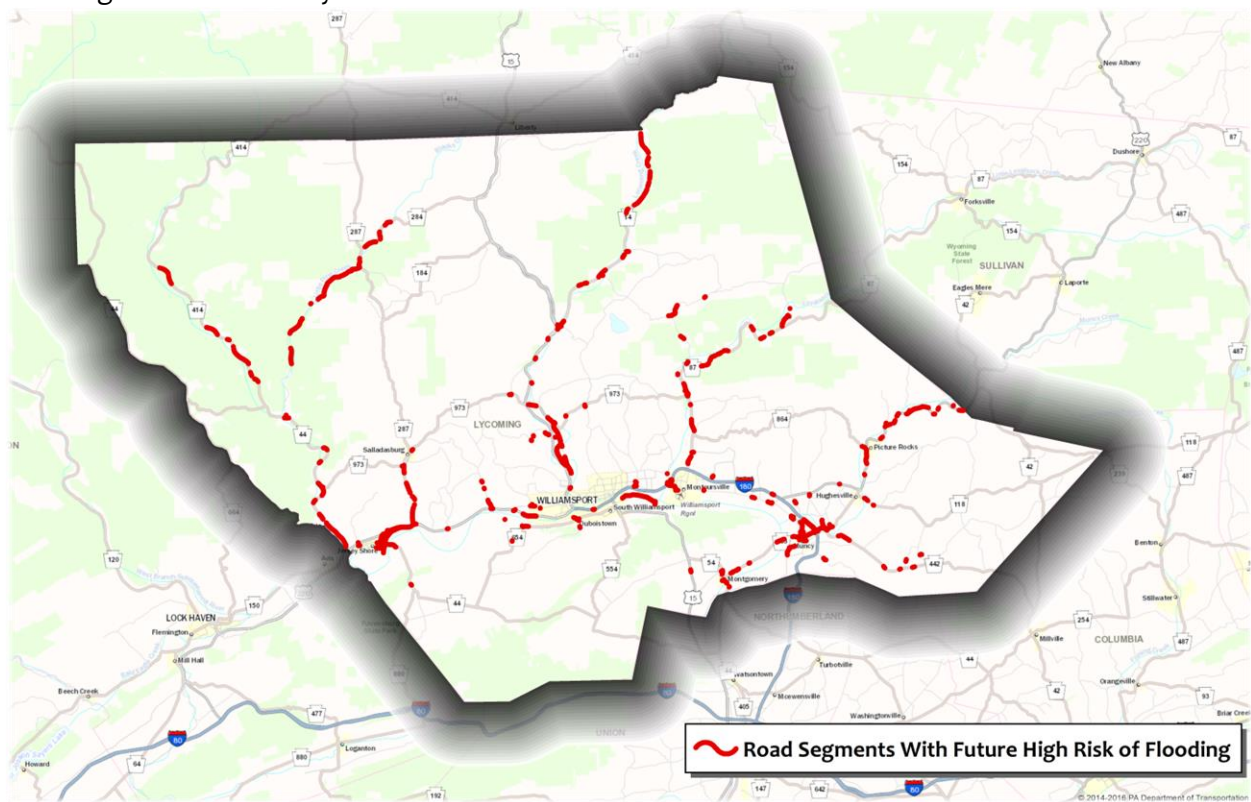


Tropical Storm Lee completely destroyed the LVRR Loyalsock Creek Railroad Bridge. The SEDA-COG Joint Rail Authority quickly mobilized and re-established rail freight service using Norfolk Southern lines in an arrangement where no disruption occurred to rail served industries along the LVRR. The JRA has also ensured that design of the new

railroad bridge will have improved hydraulic capacity and will tie into the planned Montoursville Levee System being undertaken by PA DEP. The new railroad bridge is currently under construction and will be completed by June, 2014.

Flood Risk Assessment

In 2016, Lycoming County completed a multiyear effort to update and enhance local flood data. One outcome of this effort was an updated flood risk database that was used to assess the flood risk to all road segments in Lycoming County. The resulting analysis was then provided to PennDOT and used in an innovative extreme weather vulnerability pilot study along with Philadelphia and Allegheny County. This study produced a database showing the future flood risk to road segments and gives WATS the ability to analyze the road system in terms of future high flooding risk at the road segment level countywide.



Williamsport Area Transportation Study

Metropolitan Planning Organization

LONG RANGE TRANSPORTATION PLAN
2018 - 2038

CHAPTER 3 - MULTIMODAL
TRANSPORTATION SYSTEM INVENTORY

Multimodal Transportation System Inventory

This Chapter of the WATS Long Range Transportation Plan provides a description of the existing multi-modal transportation system in Lycoming County encompassing highways and bridges, public transportation, airports, railroads, and active transportation facilities. There are no waterway or inland ports located in the County. An inventory of current transportation assets by transportation mode will be provided, including a current physical condition and operational performance needs assessment. This data driven inventory and assessment is important to properly address transportation asset management needs and to improve operational performance of the overall system in terms of public safety, security, efficiency and cost effective movement of people and goods.

Highway System

Highway Designations / Classification System

According to PennDOT data, there are 2,098 linear miles of publicly owned roadways throughout Lycoming County. PennDOT owns 903 linear miles, (43%) of public roadways in Lycoming County. In addition, there are 1,195, (57%) of locally-owned roadways owned by 52 different local municipalities included on the PennDOT Liquid Fuels System. Other agencies own the remainder of roads in the County. Lycoming County government only owns two roads which are County Farm Road at the Lysock View county complex housing the Department of Public Safety (911 center), Pre-Release and county farm and an entrance road to the White Deer Recreation Complex. There are federal designations and classifications established for highway systems in the nation as noted in the following sections.

Road Functional Classification System

The Federal Highway Administration, PennDOT and Metropolitan & Rural Planning Organizations cooperatively establish and update maps that delineate various road classifications which group roadways along a spectrum based on the type of highway service provided. The idea is that our roadway network must simultaneously meet two contradictory goals: mobility and access. The functional classifications indicate where a particular road exists along the spectrum between pure mobility (e.g. limited access, high speed highways intended for long distance travel) and pure access (e.g. low speed neighborhood streets). The hierarchy of functional classifications established by the Federal Highways Administration, from the most mobility-centric to the most access-centric is as follows:

Interstates: “Limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States”

Other Freeways and Expressways: “Directional travel lanes are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections”

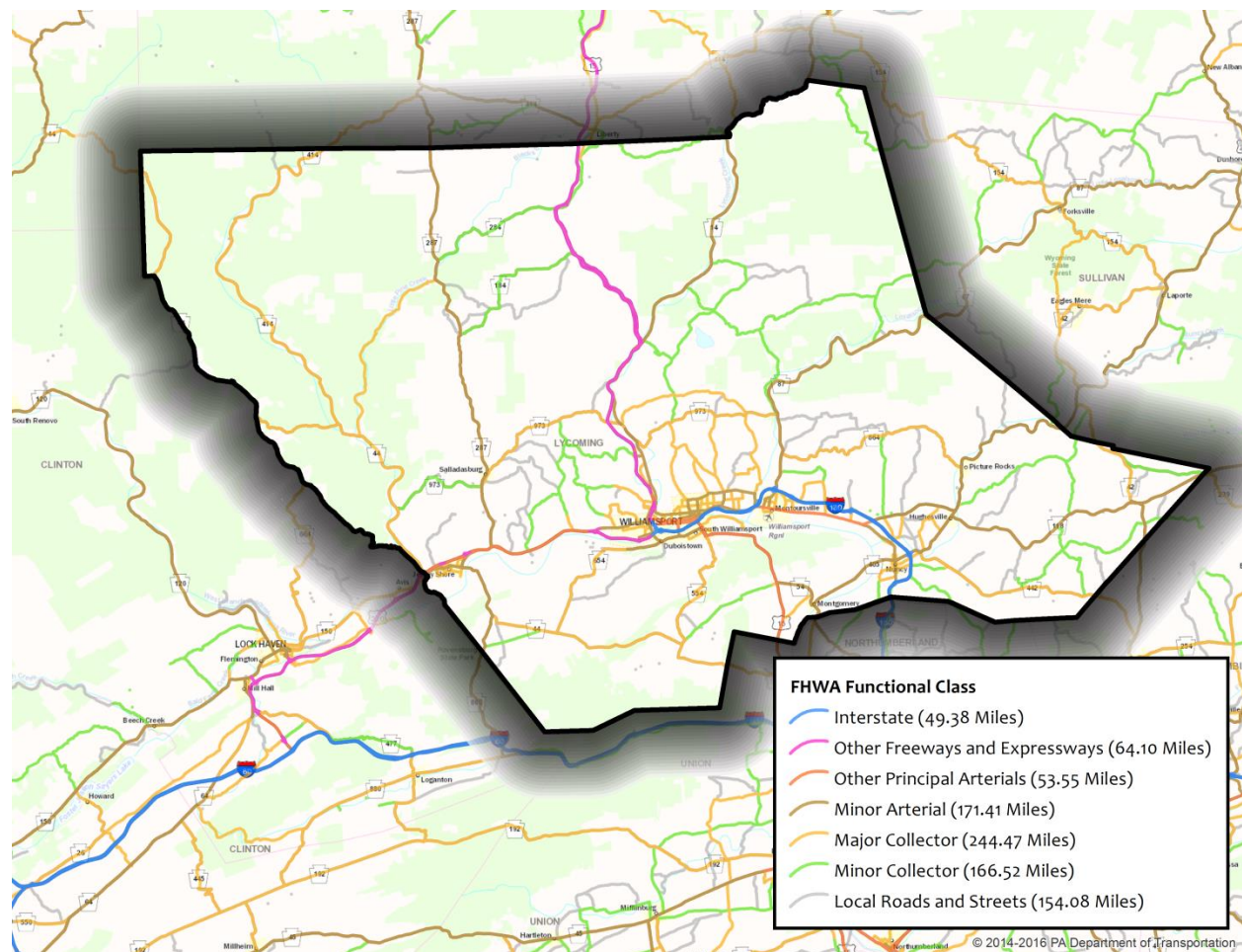
Other Principal Arterials: “Serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Abutting land uses can be served directly.”

Minor Arterials: “Provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system.

Major and Minor Collectors: “Gather traffic from Local Roads and funnel them to the Arterial network. Major Collector routes are longer in length, have lower connecting driveway densities, have higher speed limits, are spaced at greater intervals, have higher annual average traffic volumes, and may have more travel lanes than Minor Collectors”

Local Roads and Streets: “Not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land”

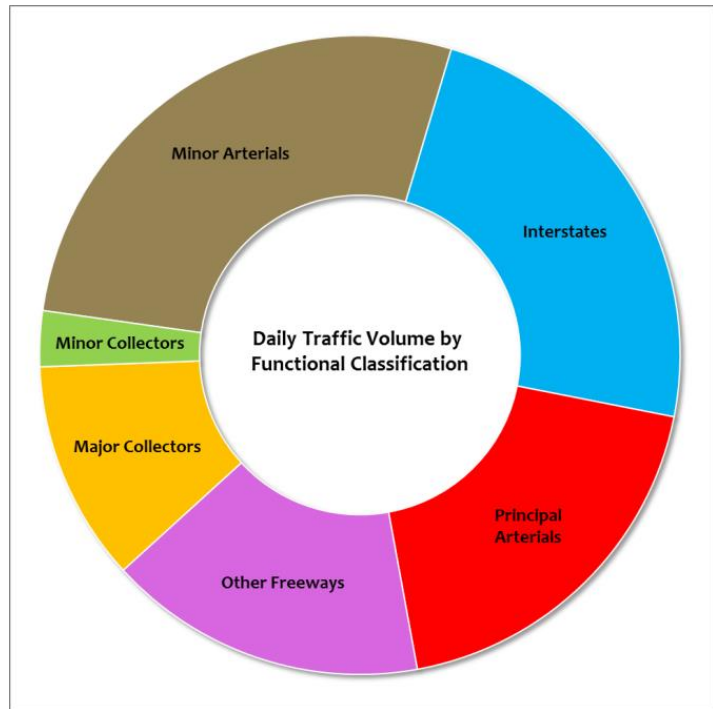
The map below depicts the roadway functional classification system and mileage within Lycoming County (mileage of divided highways is counted as separate roadways).



The only federally designated Interstate highway in Lycoming County is Interstate 180 which is 19.5 miles long between US-15 in the City of Williamsport and the Lycoming/Northumberland County line. I-180 continues through Northumberland County terminating with Interstate 80, the longest coast to coast east-west Interstate highway in the nation connecting the Atlantic and Pacific Oceans.

Of the PennDOT managed highway system in Lycoming County, the majority of road mileage (63%) is classified as either local roads or collectors. The remaining mileage is classified as arterial or interstate/freeways underscoring the vast rural nature of the county-wide road system. Of the total road system, approximately 499 linear miles of roadway (25%) are on the approved federal-aid system. Of these linear miles, 446.8 miles (89%) are State-owned roads while only 52.2 miles (11%) are locally-owned roads. Consequently, approximately 1,496 linear miles of roadway (75%) do not qualify for federal aid and most of those linear road miles are owned by local municipalities.

In terms of 2017 traffic volumes on functionally classified state roadways, the Daily Vehicle Miles of Travel, (DVMT) is the measure used for determining total travel by all vehicles. Although most road mileage in the county is classified as either local roads or collectors and does not qualify for federal aid, the Interstate and arterial system clearly carries the majority of traffic flows as shown in the chart below:

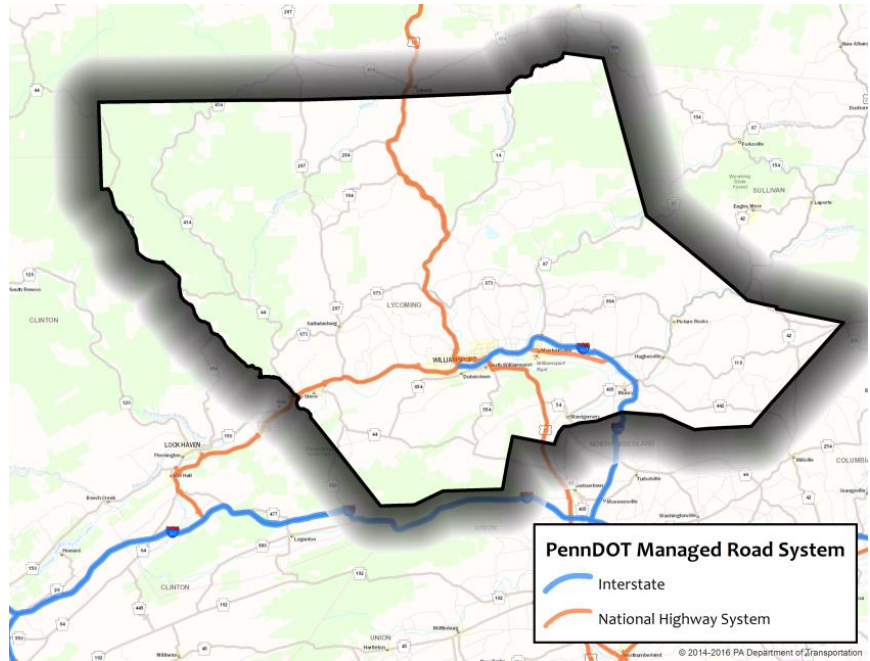


FHWA Functional Classification, State Roads	DVMT(2017)
Interstate	614,103
Other Freeways and Expressways	421,739
Other Principal Arterials	497,661
Minor Arterials	716,762
Major Collectors	292,098
Minor Collectors	73,577
Local Roads and Streets	41,529
TOTAL	2,675,469

The arterial highway system throughout the County accounts for approximately 85% of all daily traffic flows on state roads with just Interstate 180 comprising 23% of total flow. The federal aid roads carry about 63% of all daily traffic flows in the County's state road system.

National Highway System

The National Highway System, (NHS) consists of roadways important to the nation's economy, defense and mobility including the Interstate Highway System as well as other roads important to National defense. The NHS is developed by the US Department of Transportation in cooperation with States, local officials and metropolitan planning organizations, such as WATS. Originally, I-180, US-15 and a portion of US-220 were identified as NHS routes. MAP-21 created an Enhanced NHS where a portion of SR 104 was added to the system. A portion of federal funding authorized under MAP-21 is dedicated to the maintenance, preservation and upgrade of the National Highway System referred to as the National Highway Performance Program, (NHPP). NHPP funding levels for Lycoming County will be more fully discussed in Chapter 4 of this plan.



I-180 Extension

It should be acknowledged and emphasized that considerable resources have already been devoted to the maintenance, preservation and improvement of the National Highway System in Lycoming County and the surrounding region, especially in regard to I-180 preservation and the upgrade of US Route 15 between Williamsport and Corning, New York as a four lane limited access highway over the last several decades. In fact, the National Highway System Designation Act of 1995 further establishes the Interstate 99 Corridor along US-220 and US-15 between Bedford, PA and Corning, NY. Although, future I-99 signage has been installed along US-15 north of Williamsport, several major projects in Lycoming, Clinton and Centre Counties must first be completed in order to fully upgrade this highway corridor to meet Interstate design standards.

Dedication of the US 220/Future I-99 corridor in Lycoming County



I-99 has been officially designated along US-220 between I-76 PA Turnpike at Bedford and I-80 in Centre County as well as from the New York/Pennsylvania state line north to Corning. However, several major corridor improvements still need addressed to further extend I-99 in PA as authorized by Congress such as completion of the US-220/I-80 Bellefonte Interchange upgrades in Centre County. US-15 design exceptions north of Williamsport would also need federal approval. Final cost estimates to complete I-99 in PA are not yet available, however it is anticipated cost would be hundreds of millions dollars to undertake. This might not be a feasible project for many years.

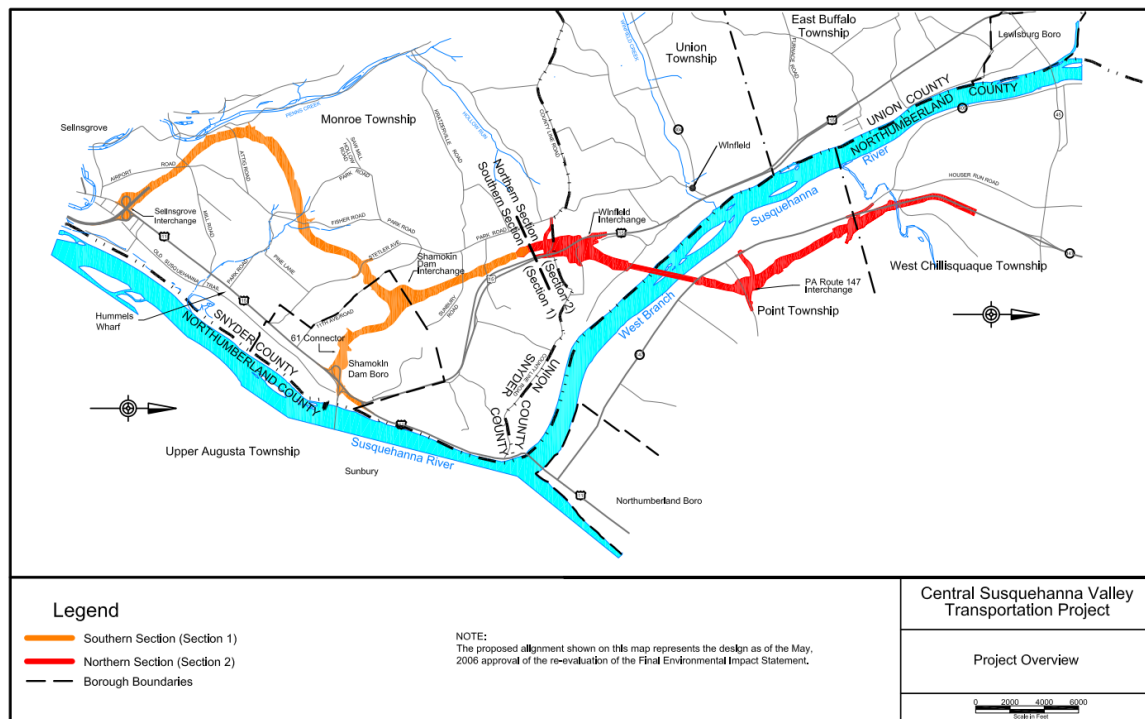
Therefore, a better short term alternative would be to extend I-180 designation along US-15 north from the current I-180 terminus to the New York state line. While this would add future interstate maintenance requirements for 61 additional miles of Interstate 180, it appears there would be no immediate effect on the amount of poor pavement measured on the Pennsylvania Interstate system as a whole. In fact, because of the high pavement quality of US-15 the redesignation of US-15 from Williamsport/current I-180 terminus north to the New York state line as I-180 would reduce the amount of poor pavement on the overall state interstate system.

Existing Pennsylvania Interstate system			Pennsylvania Interstate system including additional 61 miles of Interstate 180 (Redesignation of US-15 from Williamsport/I-180 north to the New York state line)
IRI	Excellent	51%	52%
	Good	30%	29%
	Fair	16%	16%
	Poor	4%	3%
OPI	Excellent	18%	18%
	Good	67%	67%
	Fair	14%	14%
	Poor	1%	1%

Central Susquehanna Valley Thruway, (CSVT)

Although not directly located in Lycoming County or a direct part of future I-99, the Williamsport MPO also continues to strongly support the completion of the Central Susquehanna Valley Thruway project in Union, Snyder and Northumberland Counties as part of modernizing US-15 into a core north-south highway system through central Pennsylvania consisting entirely of four lane freeway.

Specifically, the CSVT project entails phased construction of a new 12 mile long four lane, limited access highway system connecting I-80 near Milton with US 11/15 just north of Selinsgrove with a bypass around congested Northumberland Borough and a major bridge crossing over the Susquehanna River near Winfield.

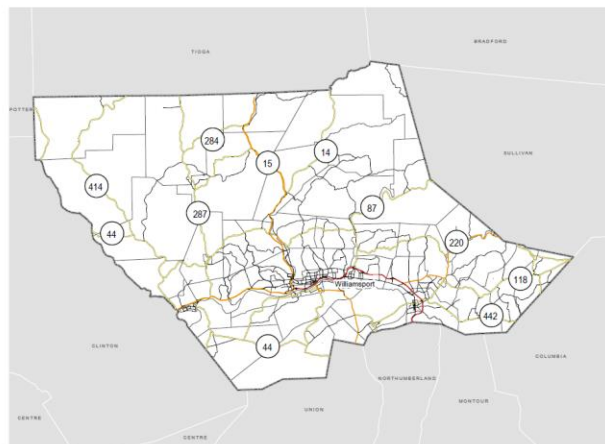


Scenic Byways Program Designations

There are Federal and State Scenic Byway Programs that recognize roads having outstanding scenic, historic, cultural, natural, recreational, and archaeological intrinsic qualities. At the federal level, Title 23, Section 162 establishes a National Scenic Byways Program with 3 designations consisting of (1) National Scenic Byways, (2) All-American Roads or (3) America's Byways. Nominations for scenic byway candidates must come from states, Indian Tribes or a Federal land management agency and the road must already be designated as a state scenic byway. Corridor Management Plans are developed and proposed projects along the scenic byway must be consistent with these plans. Federal funding assistance is available for eligible improvements. Control of outdoor advertising (such as billboards) must also be exercised along scenic byway corridors. In terms of state byway designations, PennDOT designates the PA Byways at the request of local communities or through state legislation. A nomination process must be followed largely paralleling the national scenic byways program. Appropriate signage is erected along roadways promoting these byways.

Currently, there are no National Scenic Byways or PA Byways officially designated along roadways in Lycoming County. The Lycoming County Comprehensive Plan recognizes and supports scenic byways and even supports a County Byways Program, however an evaluation of roads to be nominated as PA Byways or eventually

Selected Potential Scenic Byway Corridors for Further Evaluation



National Scenic Byways would need to be conducted. The emergence of Marcellus Shale heavy hauling truck traffic on many roadways has affected some of the intrinsic qualities of these roads so the County has not aggressively pursued such designations. The WATS MPO supports an evaluation of PA Byway suitable candidates at the appropriate time when Marcellus traffic impacts and trends are more fully understood. The following map depicts County identified potential scenic byway corridors for further evaluation consistent with state byways program criteria as originally identified “A Scenic Byways Program for Lycoming County”, approved by the WATS MPO in 2005.

Roadway Pavement Condition Assessment

Details of pavement conditions in Lycoming County are only known on PennDOT owned roadways. Comprehensive pavement condition data and assessments are not available on locally owned roadways as 52 different local municipalities own these roads and each has their own asset management data and approach to maintenance and preservation of roads under their ownership. PennDOT has developed Performance Measures Annual Reports for State-owned Highways as a key tool to assist in proper asset planning and management – collectively known as PM-2. These reports are used by PennDOT and MPO/RPO planning partner agencies, including the WATS MPO to provide key measures to formulate investment decisions in meeting pavement asset management needs.

Roadway Asset Definitions

PennDOT defines its roadway assets by establishing four Business Plan Networks:

Business Plan Network 1 – Interstate

Business Plan Network 2 – National Highway System (NHS), Non-Interstate

Business Plan Network 3 – Non-NHS with Average Daily Traffic, (ADT) greater than 2,000

Business Plan Network 4 – Non-NHS with Average Daily Traffic, (ADT) less than 2,000

Pavement Performance Measures

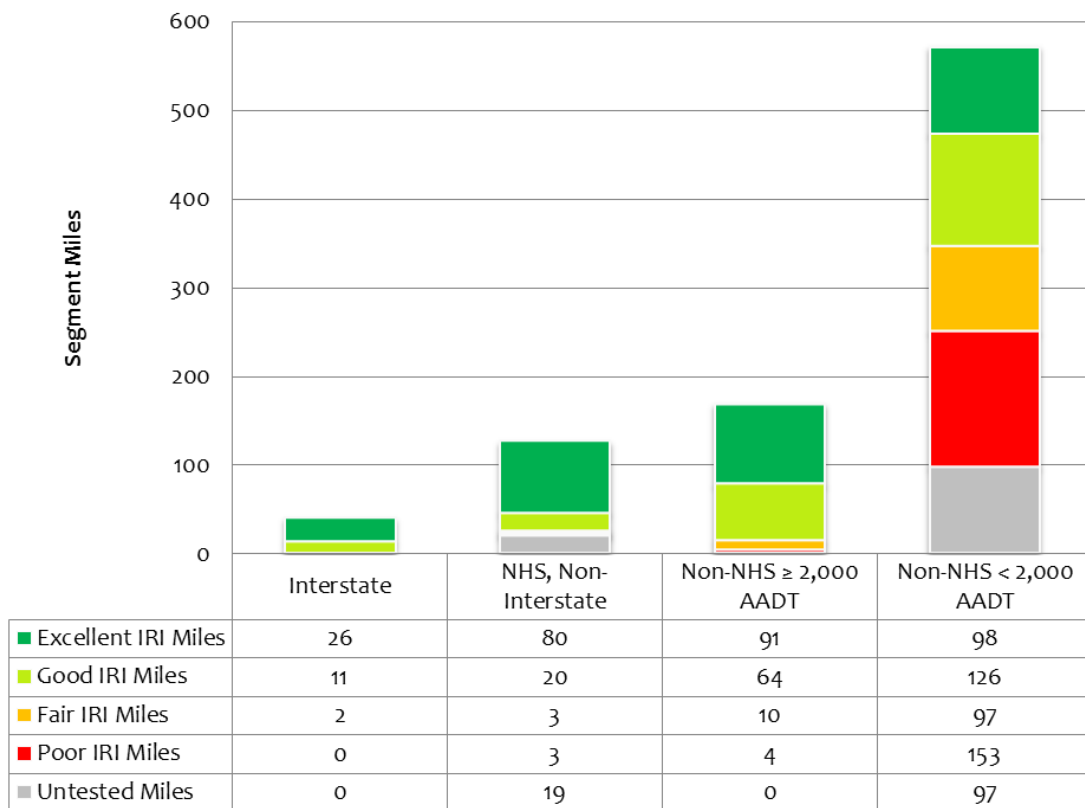
The primary performance measures to assess roadway pavement conditions consist of International Roughness Index, (IRI) data and the Overall Pavement Index, (OPI) data.

International Roughness Index, (IRI)

IRI is a worldwide standard for measuring pavement smoothness. This index measures pavement roughness in terms of the number of inches per mile that a laser, mounted in a specialized van, jumps as it is driven across the roadway system. The lower the IRI number, the smoother the ride. IRI pavement conditions are then classified as excellent, good, fair or poor for each of the four Business Plan networks are depicted on the following table.

IRI Ranges (inches per mile)	National Highway System (NHS)		Non - National Highway System	
	Interstate	Non-Interstate	ADT ≥ 2000	ADT < 2000
≤ 70	Excellent	Excellent	Excellent	Excellent
71-75	Good	Excellent	Excellent	Excellent
76-100	Good	Good	Good	Good
101-120	Fair	Good	Good	Good
121-150	Fair	Fair	Fair	Fair
151-170	Poor	Fair	Fair	Fair
171-195	Poor	Poor	Poor	Fair
196-220	Poor	Poor	Poor	Fair
> 220	Poor	Poor	Poor	Poor

IRI of Segment Miles by Business Plan Network



The next chart shows Lycoming County Business Network pavement results in relation to meeting PennDOT IRI targets.

IRI Targets

Business Plan Network	2017 % Segment Miles Poor IRI	Target % Segment Miles Poor IRI
Interstate	0%	5%
NHS (Non-Interstate)	2%	5%
Non-NHS, $\geq 2,000$ AADT	2%	No Target Set
Non-NHS, $< 2,000$ AADT	27%	No Target Set

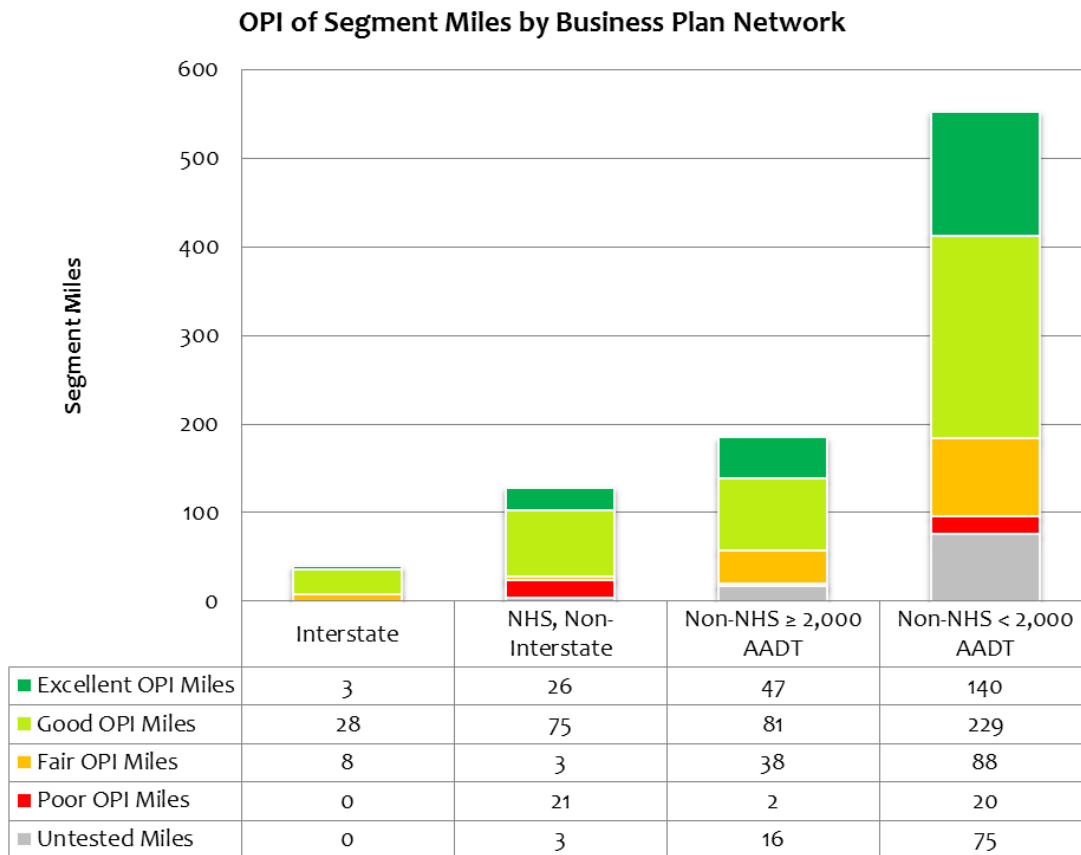
Of total tested mileage, there are no poor IRI miles along Interstate 180. There are 3 miles of poor IRI along the remainder of the NHS system. Along non-NHS routes with greater than 2,000 ADT, there are only 4 miles of poor IRI pavement. However, non-NHS routes with less than 2,000 ADT shows 153 miles of poor IRI pavements. Most of this poor IRI is located on the secondary road system (Business Plan Network 4) carrying lower traffic volumes.

Overall Pavement Index (OPI)

PennDOT also uses a calculation to determine a more comprehensive assessment of pavement condition called the Overall Pavement Index, or OPI, which is specific to Pennsylvania. The index calculates the existing performance of the pavement using inputs that include the IRI and the initial pavement distresses including cracking, edge deterioration, rutting, and other signs of deterioration that are collected as part of the videologging process, which is used for the Systematic Techniques to Analyze and Manage PA Pavements, (STAMPP) assessment. The more severe and/or extensive the distress (high, medium or low), the greater the deduct value, resulting in a lower pavement index value. It is important to note that the OPI only rates the pavement surface and cannot evaluate the base nor the state of the pavement cycle. The higher the OPI score, the better condition of the road. Like, IRI the OPI pavement conditions are then classified as excellent, good, fair or poor for each of the four Business Plan networks.

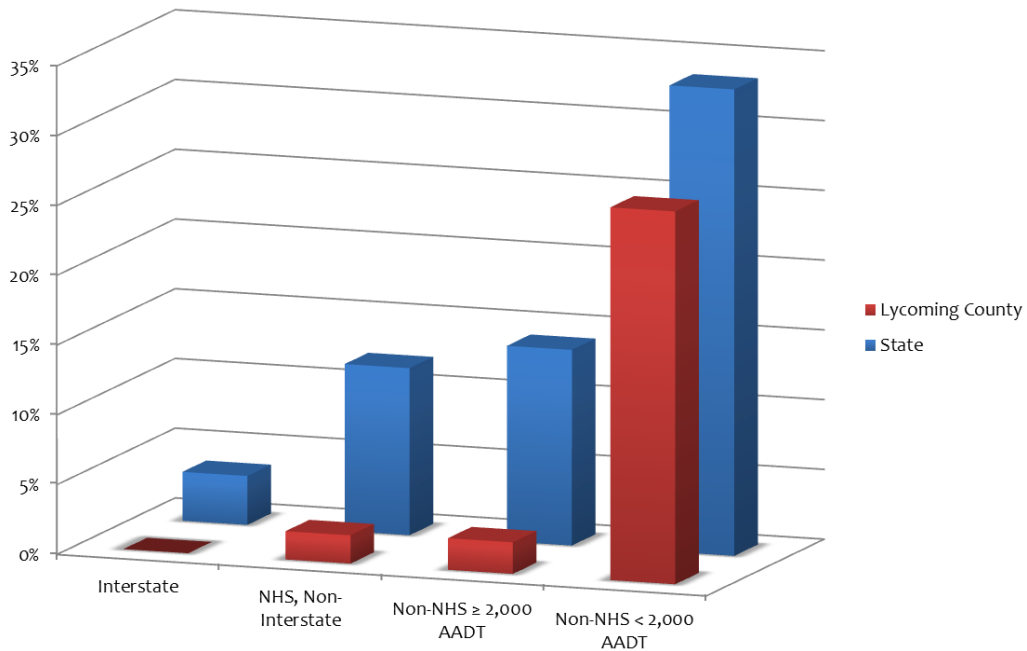
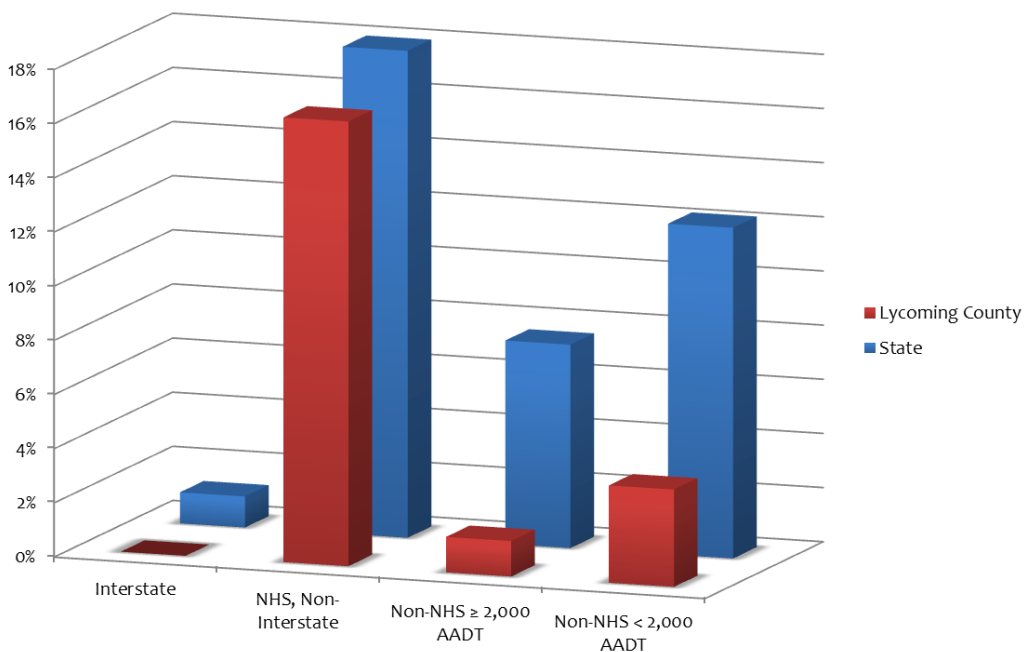
Category	National Highway System (NHS)		Non-National Highway System	
	Interstate	Non-Interstate	ADT ≥ 2000	ADT < 2000
> 95	Excellent	Excellent	Excellent	Excellent
91-95	Good	Good	Good	Good
86-90	Fair	Fair	Fair	Fair
81-85	Poor	Poor	Poor	Poor
76-80				
71-75				
66-70				
60-65				
< 60				

PennDOT OPI Classification for each Business Plan Network

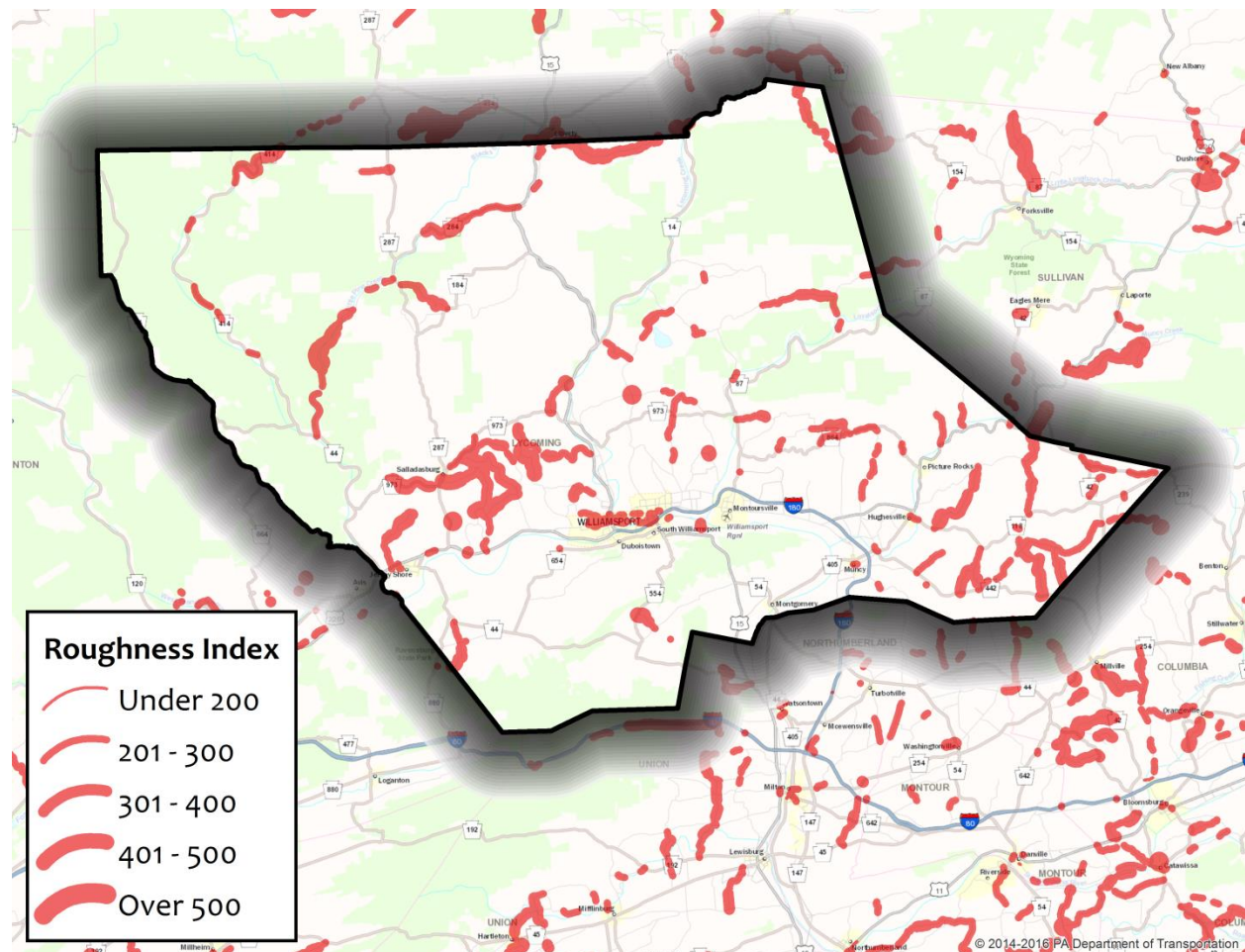


Above are current OPI summary results for all four Business Plan networks within Lycoming County based most recent 2017 data.

The next two graphs show Lycoming County Business Network pavement results in relation to meeting PennDOT OPI goals. Of total tested mileage, there are 8 fair or and no poor OPI miles along Interstate 180. There are 21 miles of poor OPI along the remainder of the NHS system. Along non-NHS routes with greater than 2,000 ADT, there are only 2 miles of poor OPI pavement. However, non-NHS routes with less than 2,000 ADT shows 20 miles of poor OPI pavements. Therefore, approximately 2.6% of Lycoming County state-owned roads tested mileage has poor OPI pavements. The following graphs compare Lycoming County poor IRI and OPI roadway sections with state-wide figures.

Percent of Segment Miles with Poor IRI by Business Plan Network**Percent of Segment Miles with Poor OPI by Business Plan Network**

These graphics illustrate that State-owned highway pavements within Lycoming County are in much better overall condition than statewide pavements on all business plan networks in terms of both OPI and IRI. In terms of specific locations within Lycoming County having poor IRI pavements, the following map shows where they are located:



PennDOT Engineering District 3-0 typically addresses poor IRI routes by scheduling and prioritizing resurfacing for these routes based on IRI data and other appropriate information such as field verification by segment to identify why IRI is low such as problems with pipe trenches or base failure. These methods have kept poor pavements within Lycoming County below the statewide levels across all business plan networks.

Roadway Operational Characteristics

When assessing the adequacy of the roadway network, it is important to look beyond pavement conditions when identifying improvement needs. There also needs to be a focus on improving highway safety and promoting efficient traffic flows to manage congestion. Again, it is essential to utilize data driven methods to evaluate highway safety and efficiency and to determine appropriate

strategies to enhance overall system performance. This section of the plan will address overall highway safety and operational efficiency of the highway network within Lycoming County.

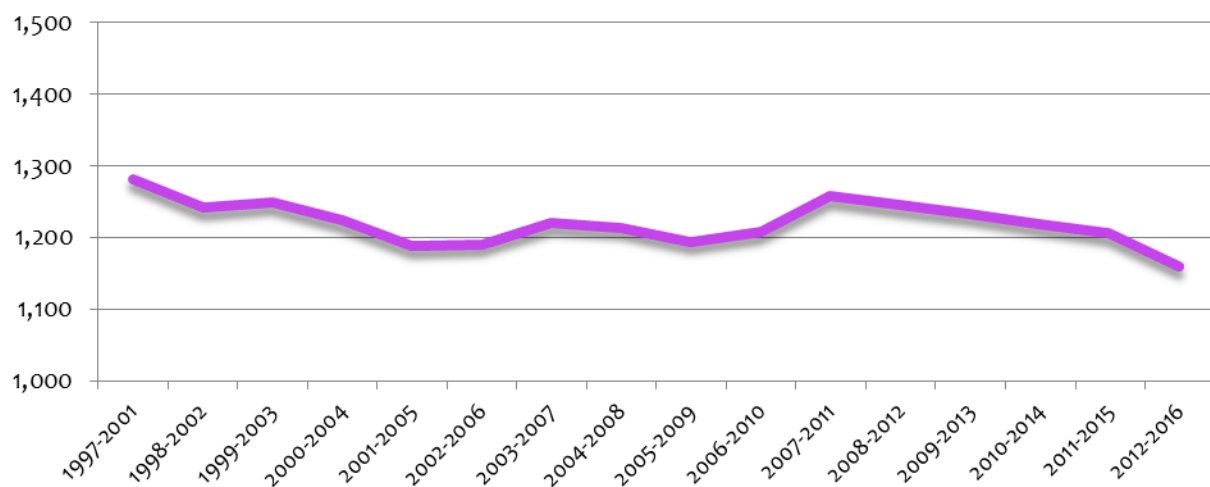
Highway Safety

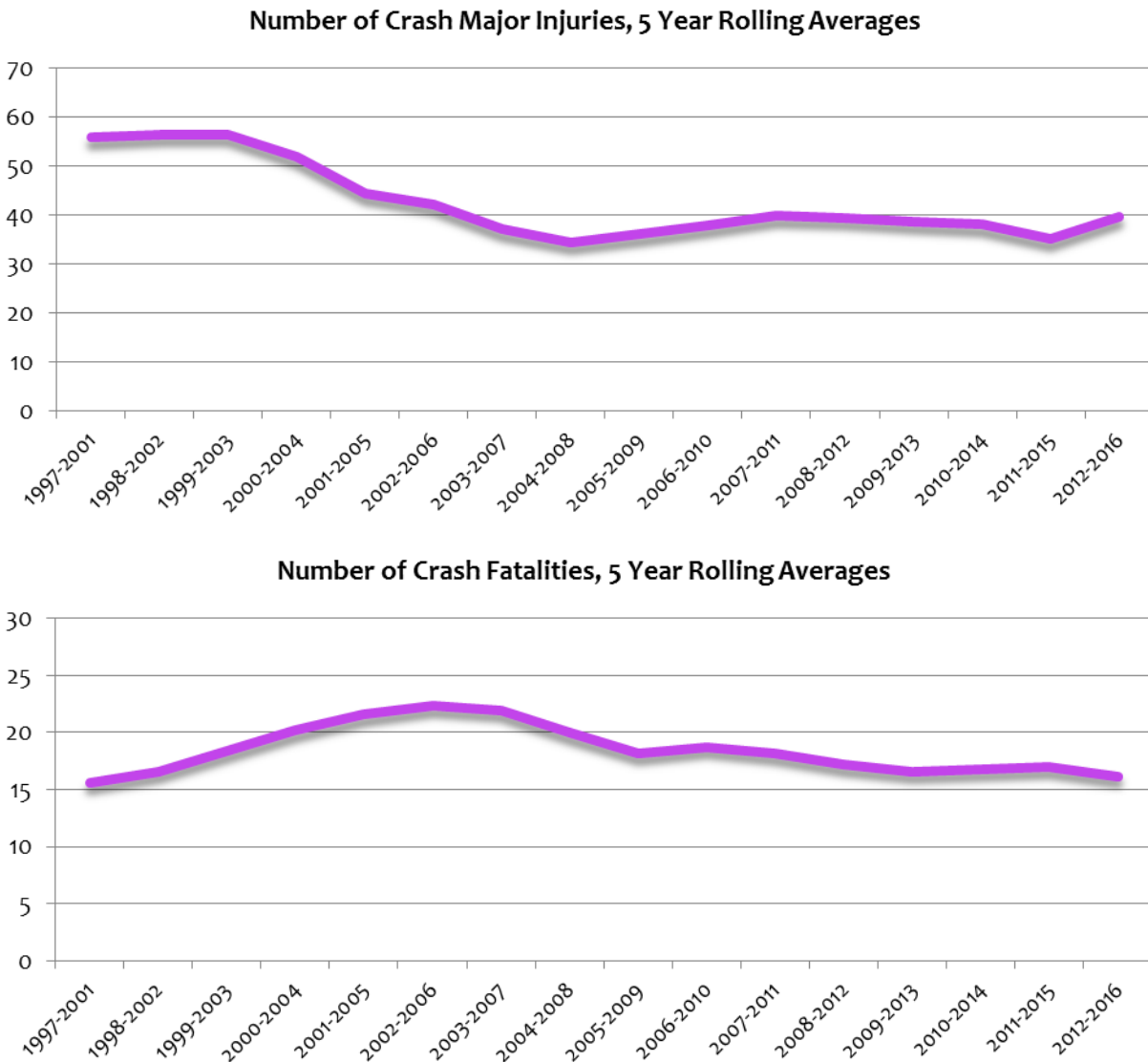
The FAST Act federal legislation places high significance on highway safety mandating the development of State Strategic Highway Safety Plans, dedicated federal funding for a Highway Safety Improvement Program, (HSIP) to drive investment decisions by States in cooperation with MPOs and RPOs, and requiring state DOTs to set specific performance targets related to safety – these performance measures are collectively known as PM-1. The [2017 Pennsylvania Strategic Highway Safety Plan](#) establishes goals of reducing fatalities and serious injuries by 2% annually. The WATS MPO has adopted the safety targets set for our area to meet statewide goals which are as follows:

Performance Measure	5-year Rolling Averages	
	TARGET	BASELINE
	2014-2018	2012-2016
Number of Fatalities	17.0	16.2
Fatality Rate (per 100 million DVMT)	1.539	1.494
Number of Serious Injuries	48.3	39.6
Serious Injury Rate (per 100 million DVMT)	4.373	3.648
Number of Non-motorized Fatalities and Serious Injuries	8.5	5.6

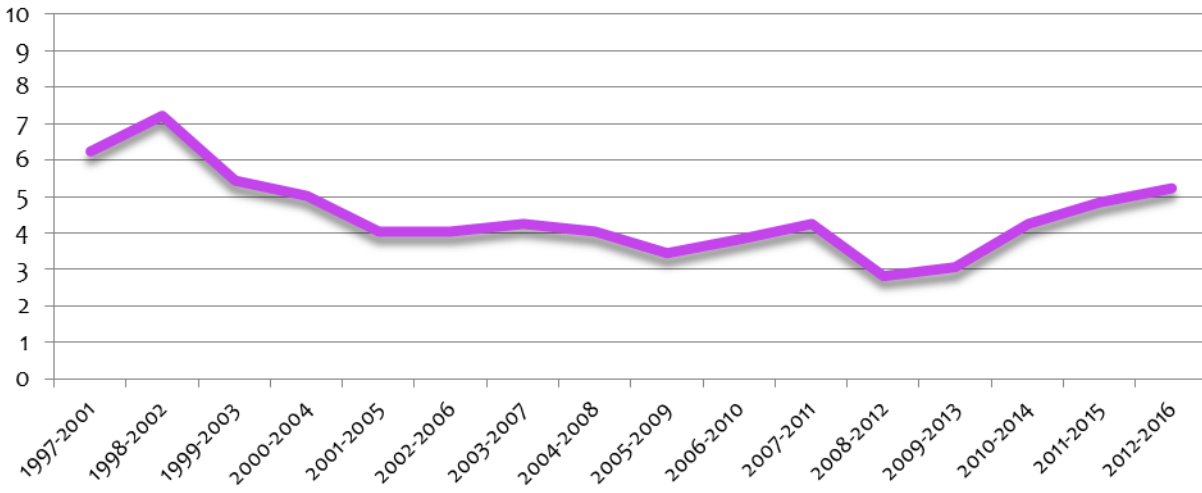
For every single performance target, the Williamsport MPO is already below the target value. Recent trends in reportable crashes on state roads show a decrease in the number of crashes, the number of major injuries, and the number of fatalities.

Number of Crashes, 5 Year Rolling Averages





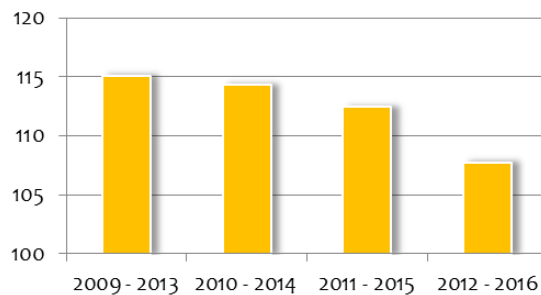
The only exception to this local trend of increased highway safety has been a recent increase in the number of non-motorized fatalities and major injuries since the adoption of the last Long Range Transportation Plan.

Number of Non-motorized Crash Fatalities and Serious Injuries, 5 Year Rolling Averages

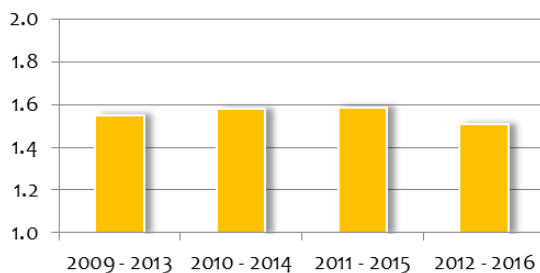
In terms of the rate of crashes, the recent trend is a decrease in the overall crash rate in Lycoming County but relatively no change in the rate of major injuries and fatalities.

Overall Crash Rate

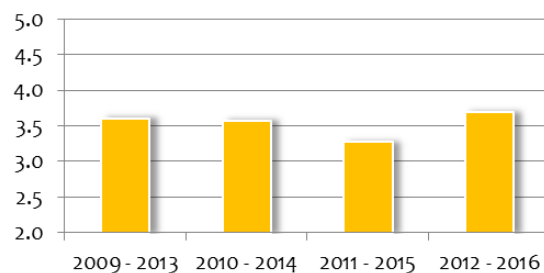
(Crashes per 100 million daily vehicle miles traveled)

**Fatality Rate**

(Crash fatalities per 100 million daily vehicle miles traveled)

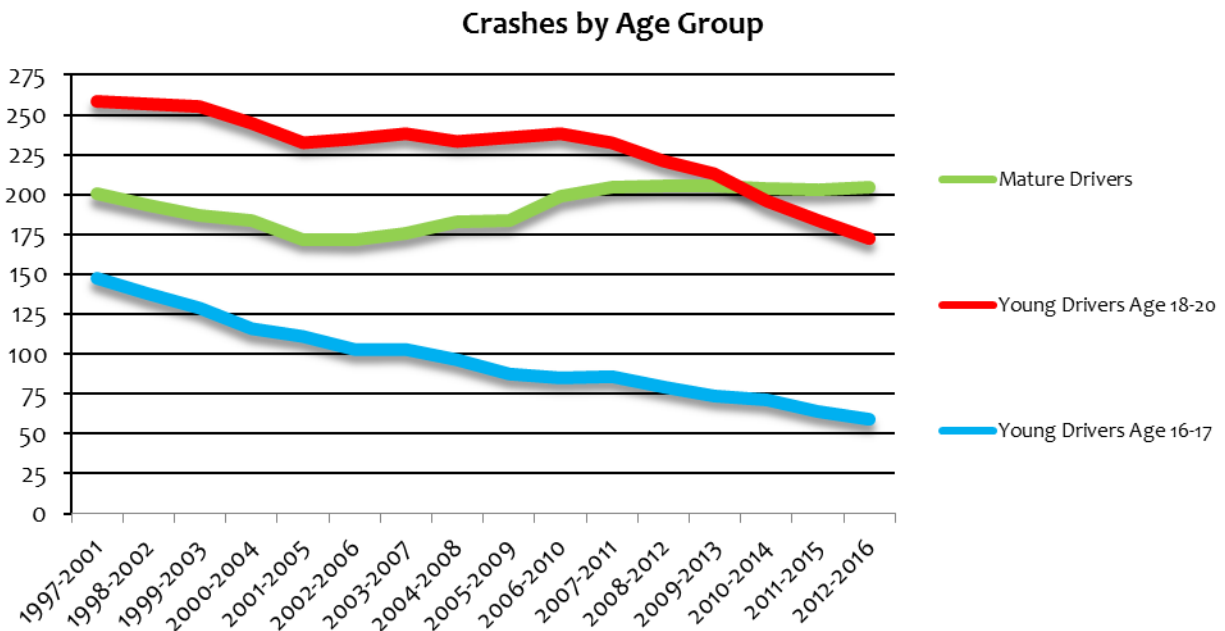
**Major Injury Rate**

(Crash major injuries per 100 million daily vehicle miles traveled)

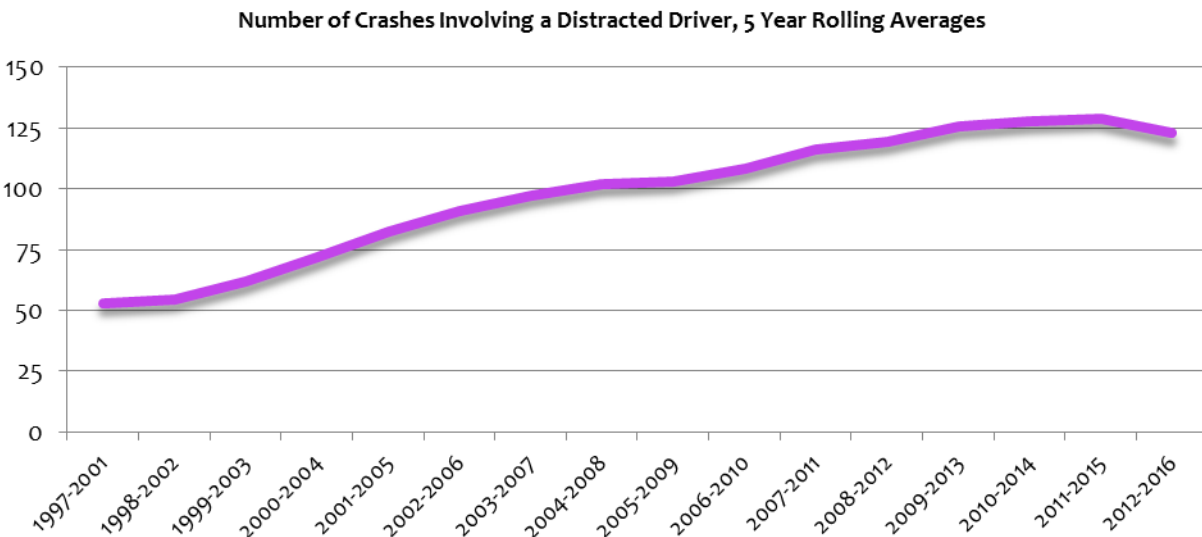


The Pennsylvania Strategic Highway Safety Plan includes focus areas of improving safety for both mature drivers (age 65 and over) and two age classes of “young and inexperienced drivers” aged 16-17 and aged 18-20. Crash data for Lycoming County shows that we are seeing large decreases in the numbers of crashes involving both age classes of young drivers. From 1997-2016, Lycoming County has seen a 60% drop in crashes involving a driver age 16-17 and a 33% drop in crashes involving a driver

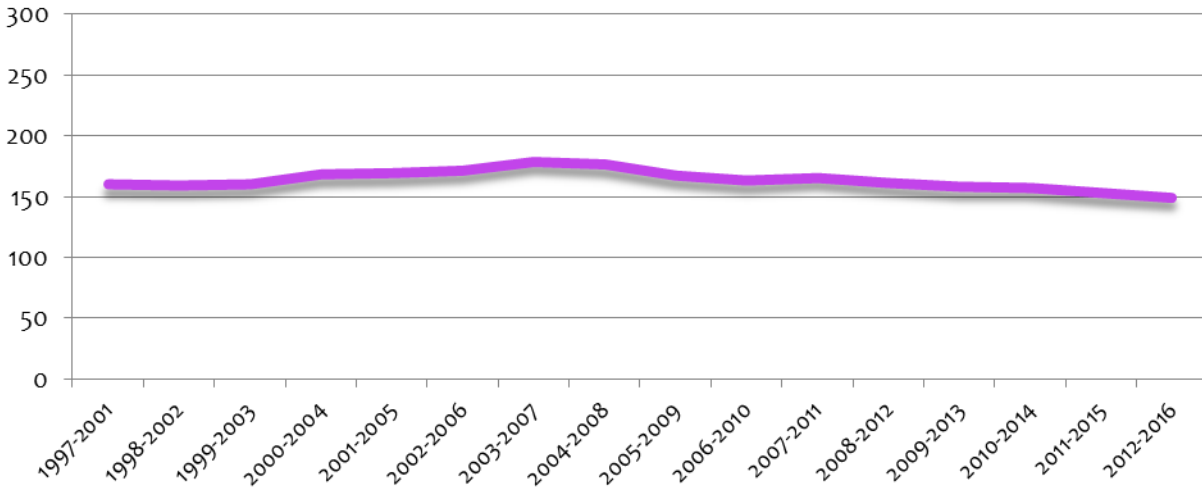
age 18-20. However, in the same time period there has been a 2% overall increase in the number of crashes involving a driver age 65 and over.



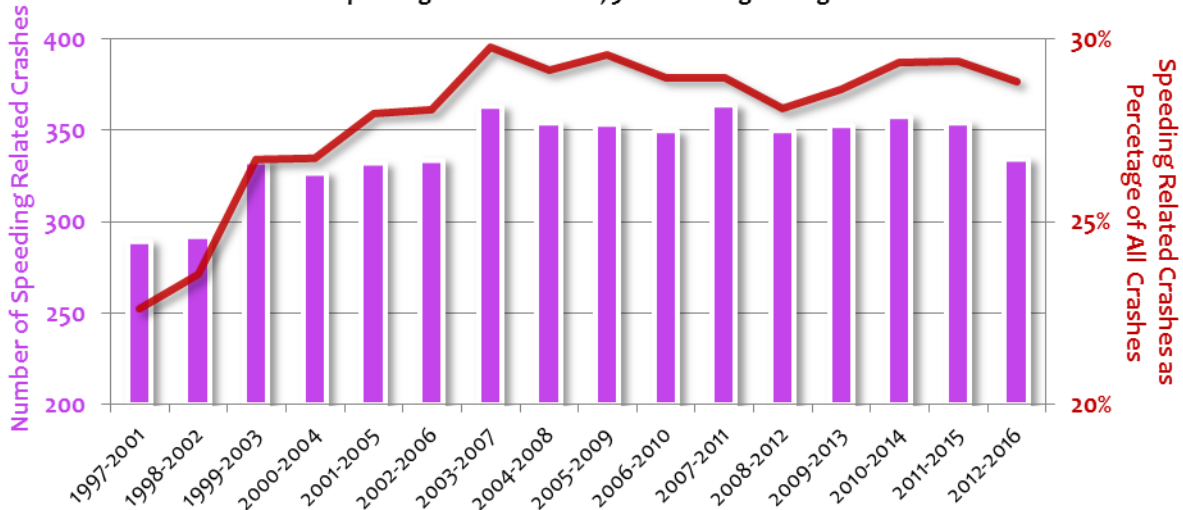
Another focus area in the Strategic Highway Safety Plan is the role of distracted driving on crashes. Lycoming County has seen a 132% increase in crashes involving a distracted driver since 1997.



The reduction of impaired driving is another objective of the Strategic Highway Safety Plan. The involvement of impaired drivers in crashes in Lycoming County has remained steady since 1997 with no large increase or decrease.

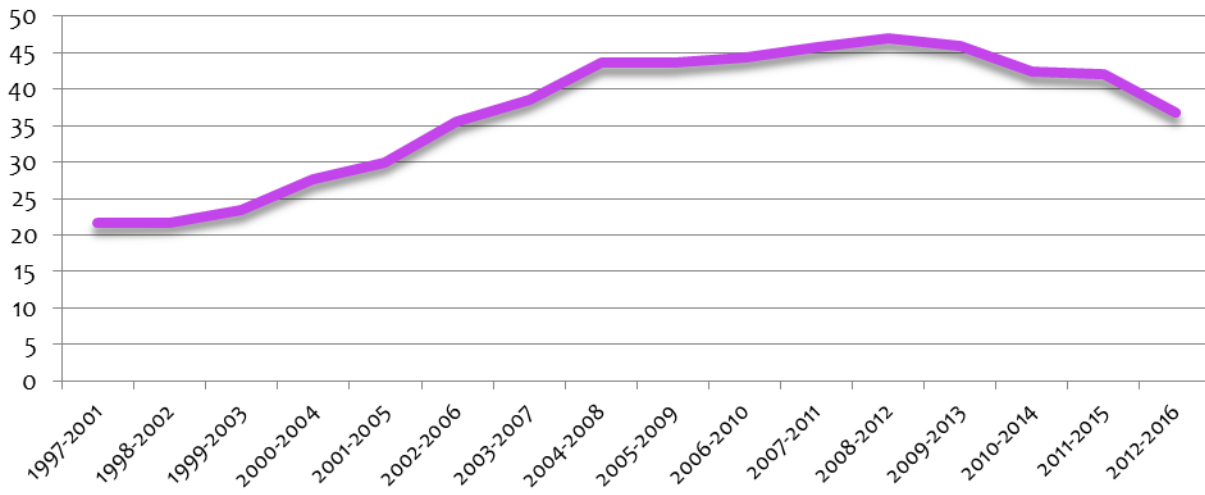
Number of Crashes Involving an Impaired Driver, 5 Year Rolling Averages

Speeding related crashes, another major focus area of the SHSP, have increased both in number and as a contributing factor to overall crashes in Lycoming County over the past 20 years. From 1997 to 2016 there has been a 16% increase in the number of speeding related crashes. From 1997-2001 23% of all crashes were speeding related. For crashes 2012-2016, 29% of all crashes were speeding related.

Speeding Related Crashes, 5 Year Rolling Averages

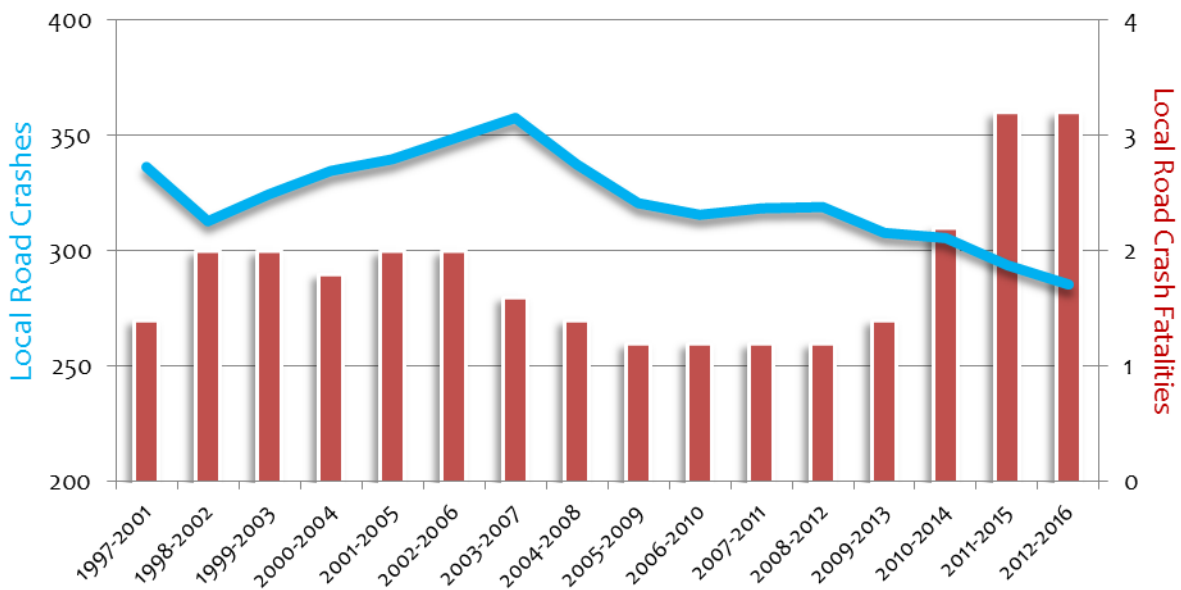
Motorcycle crash fatalities account for 10% of all crash fatalities in Lycoming County 1997-2016. The number of motorcycle crashes has nearly doubled in that time period. During the same general time period (2002 – 2016), Lycoming County saw a 78% increase in the number of motorcycle registrations from 2,822 to 5,035.

Number of Crashes Involving Motorcycles, 5 Year Rolling Averages

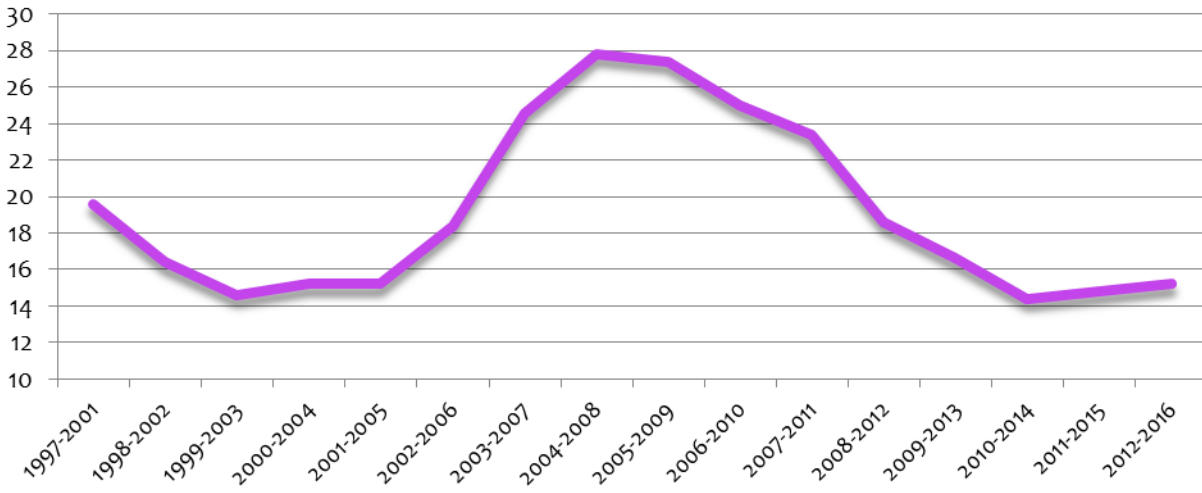


Local road safety is another key focus area for the Strategic Highway Safety Plan. In Lycoming County, local road crashes accounted for 28% of all crashes and 12% of crash fatalities in the period 1997-2016. Recent trends show a decrease in the number of local road crashes but an increase in the number of fatalities resulting from local road crashes.

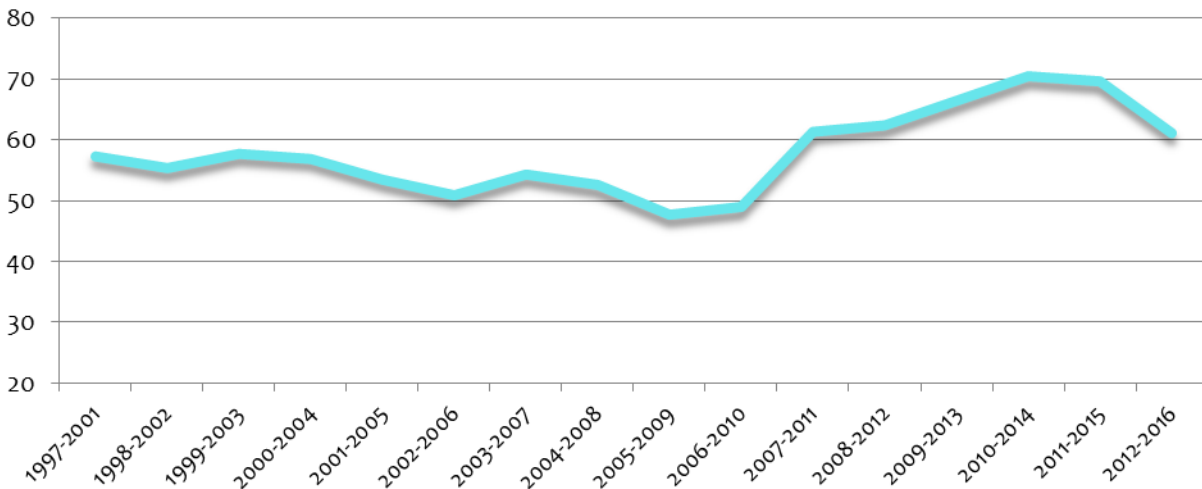
Crashes on Local Roads, 5 Year Rolling Averages



Work zone safety is also emphasized in the Strategic Highway Safety Plan. Work zone safety is especially important because maintenance and construction workers are especially vulnerable during road work. Lycoming County saw a worrying surge in work zone crashes, but the trend reversed and now the number of work zone crashes has declined back to the same level seen 20 years ago.

Number of Crashes in Work Zones, 5 Year Rolling Averages

Safety for commercial vehicles is vitally important to a reliable freight movement network. Unfortunately, Lycoming County has seen an increase in crashes involving heavy trucks over the past 10 years.

Number of Crashes Involving Heavy Trucks, 5 Year Rolling Averages

While the data shown above shows that our transportation network performs well compared to our target metrics, the WATS MPO will continue to place an emphasis on prioritizing projects that will reduce fatalities and serious injuries on the roadways within our jurisdiction.

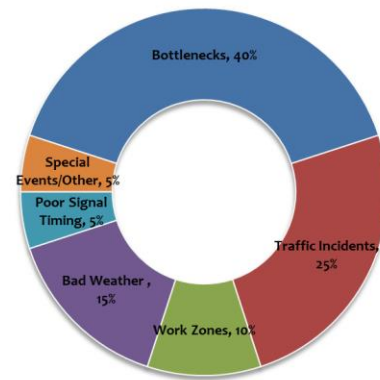
Congestion & Access Management

Congestion management is the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods. A Congestion Management Process, (CMP) is a systematic and regionally-accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management

that meet state and local needs. FHWA has identified the primary causes of traffic congestion in the 2005 report “[Traffic Congestion and Reliability](#).” The major contributing causes to congestion are noted in the pie chart at right.

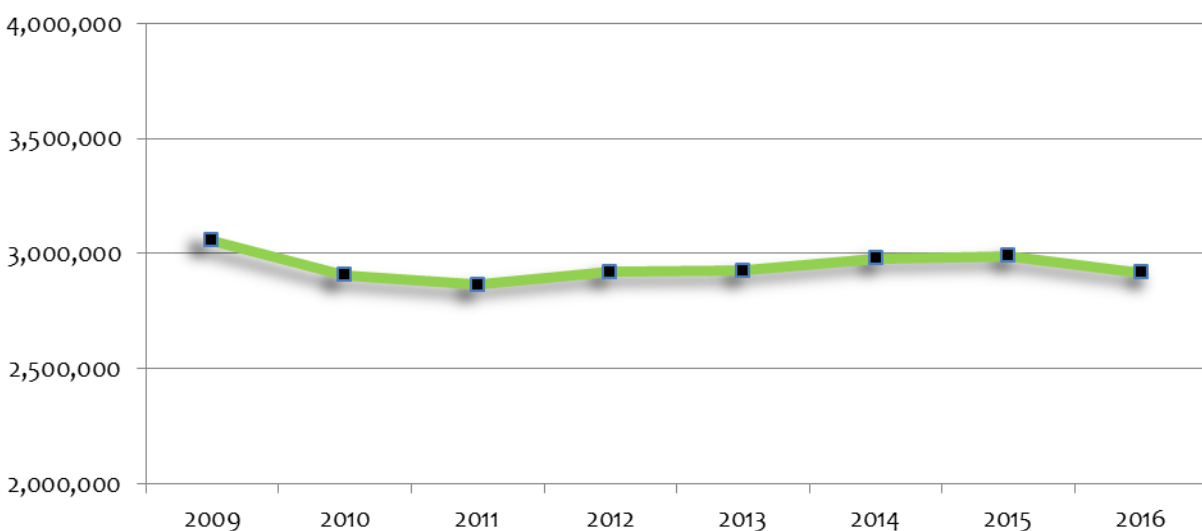
A CMP is federally required in metropolitan areas with population exceeding 200,000 known as Transportation Management Areas, (TMAs). Since Lycoming County has less than 200,000 population, the WATS MPO is not required to develop a CMP, however a CMP process tailored to local issues and needs is beneficial. Also, in TMAs designated as ozone or carbon monoxide air quality non-attainment areas, the CMP takes on greater significance as Federal law prohibits transportation projects that result in significant increases in carrying capacity for single occupant vehicles, (SOVs) from being programmed in these areas unless the project is addressed in the region’s CMP. According to the US Environmental Protection Agency, (EPA), Lycoming County is currently in attainment for all national ambient air quality standards so air quality conformity analysis is currently not required for WATS MPO Long Range Plan and Transportation Improvement programmed projects.

Causes of traffic congestion (FHWA, 2005)



Despite a drop in traffic volume in the most recent PennDOT PUB 600 (Pennsylvania Highway Statistics), the recent trend in traffic volumes has been small, steady increases in Daily Vehicle Miles Traveled (DVMT) in Lycoming County.

Lycoming County Traffic Volumes
(Daily Vehicle Miles Traveled)



Travel Time Reliability

The FHWA final rule for the National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program became effective on May 20, 2017. This is the third of a series of related rulemakings that establishes a set of performance measures for MPOs to use as required by MAP-21 and reinforced by the FAST Act. These performance measures include targets for Travel Time Reliability, Non-SOV Travel Measures, and Congestion Mitigation & Air Quality Emission Measures. The MPO intends to adopt these performance measure targets at their September meeting.

As explained under the Congestion & Access Management paragraph above, the WATS MPO is in attainment for all national ambient air quality standards. As such, the WATS MPO will only be held to the Travel Time Reliability Targets which are as follows:

Travel Time and Annual Peak Hour Excessive Delay Measures				
Measure	Baseline 2017	2-year Target 2019	4-year Target 2021	WATS MPO Comparison
Interstate Reliability (Statewide)	89.8%	89.8%	89.8%	100.0%
Non-Interstate Reliability (Statewide)	87.4%	N/A	87.4%	98.3%
Truck Reliability Index (Statewide)	1.34	1.34	1.34	1.16

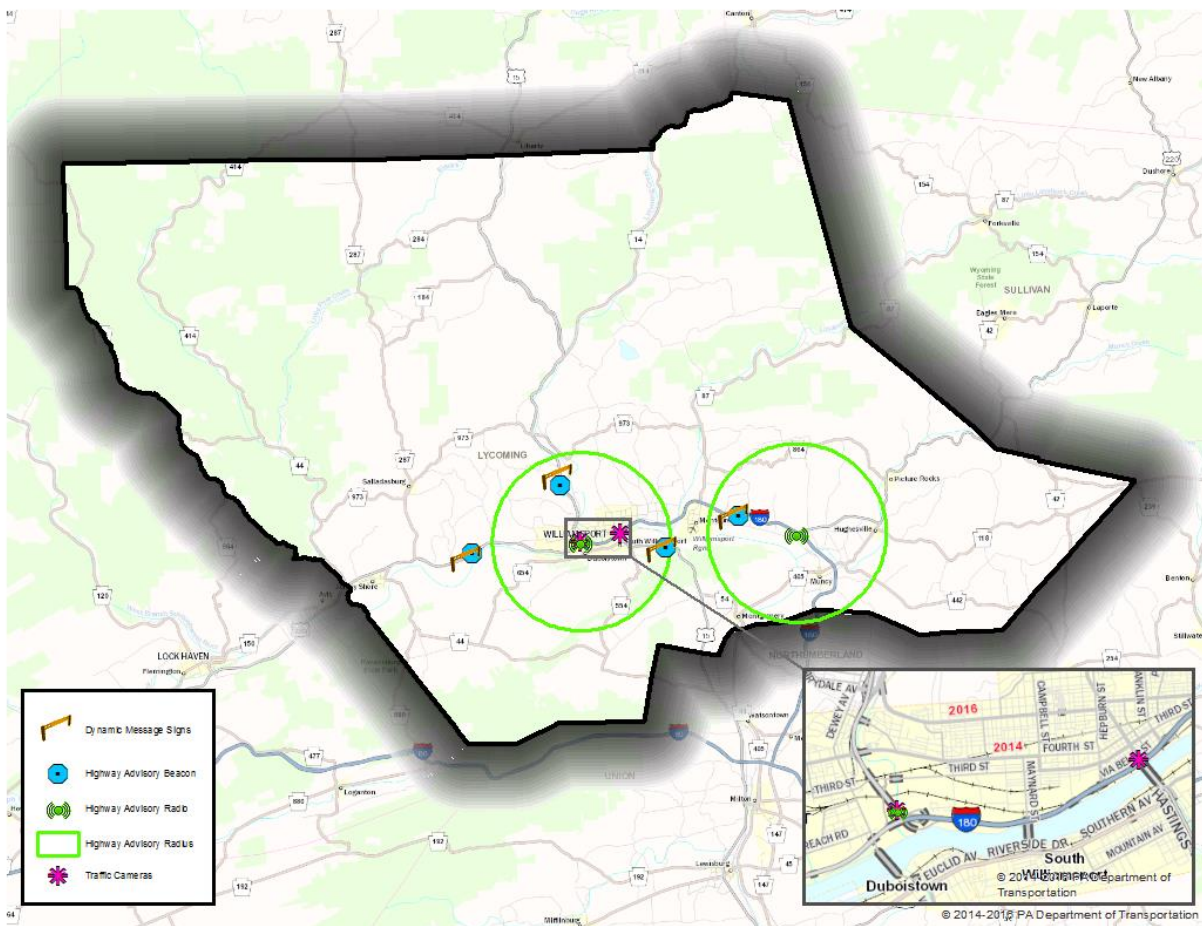
Due to potential tool enhancements, limited historic information, and the need for additional research PennDOT has established conservative targets. PennDOT will track the measures over the next two years and determine if any adjustment are needed to realistically meet the 4-year performance measure targets. The WATS MPO already compares favorably to the 4-year target set for statewide reliability, but is still committed to improving system reliability where feasible.

Highway Occupancy Permits

It should be noted that PennDOT regulates access onto State-owned road right of way in accordance with Title 67 PA Code Chapter 441. PennDOT has recently made significant efforts to enhance municipal coordination during the review and approval of driveway permit applications through their newly established e-permitting system affording municipalities to review and comment on permit applications, especially during their review of local land development plans to improve transportation and land use decision-making. The WATS MPO strongly supports such efforts in order to better manage highway access to preserve the operational integrity and capacity of the existing roadway system as funding is very limited to undertake new capacity improvement projects. As part of the PennDOT HOP process, large scale higher traffic volume generators proposing access onto state-owned roads are required to prepare either a Transportation Impact Study, (TIS) or Transportation Impact Assessment (TIA) to document impacts from their development and identify transportation improvement needs. There are some local municipalities in Lycoming County that do issue driveway permits on roadways under local ownership. The most significant example of a

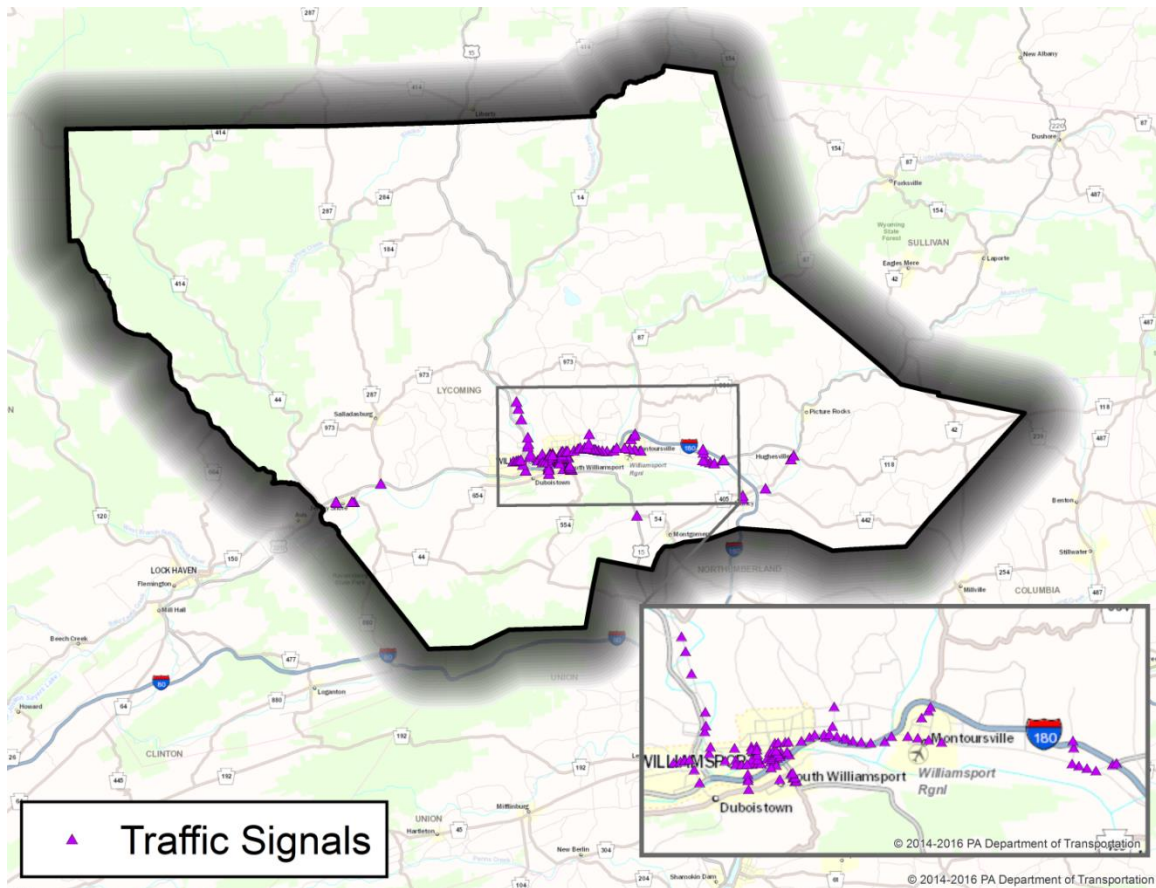
PennDOT highway access management project now underway in Lycoming County is the US-220 Corridor Access Management Project between the Williamsport and Jersey Shore Areas.

Transportation Systems Management & Operations (TSMO)



In order to effectively implement Transportation Systems Management & Operations (TSMO) initiatives in the Commonwealth, PennDOT is undertaking a planning process to create four Regional Operation Plans (ROPs). These plans will inventory existing ITS and Operations infrastructure, needs, vision, and goals to help guide district level decisions that are in-line with regional, state, and federal policies. While the Central Region's ROP, which includes District 3-0, has not yet been completed – District 3-0 has still managed to implement various ITS field devices to help make the roadway system work more efficiently. Improvements to date include four dynamic message signs, two traffic cameras, two highway advisory radio broadcast locations, and four highway advisory beacons. See location of field devices in the location map above. These devices are helping District 3-0 better monitor and respond to incidents on the key transportation corridors throughout Lycoming County.

Lycoming County Traffic Signal Inventory



There are 105 traffic signals located along state and locally owned roadways throughout Lycoming County. PennDOT issues permits for all traffic signals regardless of location, and local municipalities maintain and operate these traffic signals as per the permit requirements and in virtually all cases pay the installation, maintenance and energization costs. Most traffic signals are situated within the Williamsport Urbanized Area where roadway intersections have higher traffic volumes or crash histories that meet traffic signal warrants.

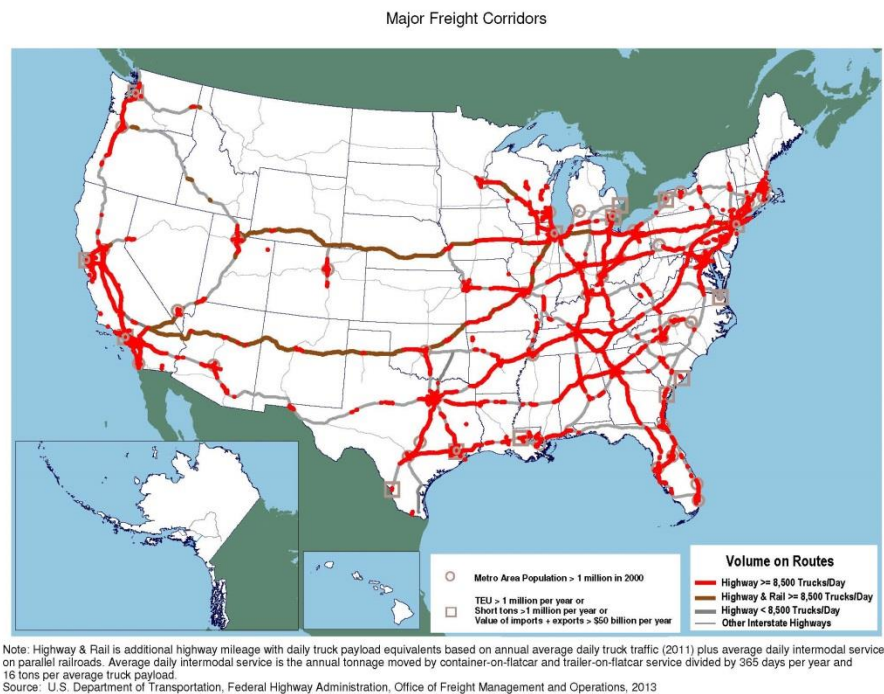
Municipality	Number of Traffic Signals
WILLIAMSPORT	50
LOYALSOCK	16
SOUTH WILLIAMSPORT	9
MUNCY TOWNSHIP	8
MONTOURSVILLE	7
JERSEY SHORE	4
OLD LYCOMING	4
HUGHESVILLE	2
MUNCY BOROUGH	2
CLINTON	1
MUNCY CREEK	1
PIATT	1
TOTAL	105

Freight Movement

Freight planning is an important component of statewide and metropolitan transportation planning processes. In Lycoming County, freight is moved among several modal systems consisting of highways, freight railroads and air freight service. Securing accurate and reliable freight data is essential to good planning, however challenging to compile as there is no single source of freight related data and distribution. The advent of Marcellus Shale gas exploration has only underscored the importance of understanding freight movement so that bottlenecks and gaps affecting the efficient movement of freight can be properly addressed to support the regional economy.

At the federal level, freight data is available from the Federal Highway Administration Freight Analysis Framework database. This data shows national freight movement patterns and provides future forecasts to the Year 2045. It is useful in examining long haul freight movements nationally and by state but does not supply detailed freight data specific to planning regions. PennDOT has completed a Comprehensive Freight Movement Plan, (CFMP), as part of the overall State Long Range Plan Update referred to as PA On Track.

In terms of the national picture, the map below shows the major freight corridors. As you will note the closest major freight corridors near Lycoming County are I-80 and I-81.



The latest long-haul freight truck traffic data on the National Highway System is 2015 as shown below.

Average Daily Long-Haul Truck Traffic on the National Highway System: 2015



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.
 Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 4.3, 2017.

The FHWA forecasts freight movement to dramatically increase on the National Highway System by Year 2045 as shown below.

Average Daily Long-Haul Truck Traffic on the National Highway System: 2045



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.
 Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 4.3, 2017.

In fact, the PennDOT Comprehensive Freight Movement Plan estimates that freight shipments through and within Pennsylvania are expected to increase 46% in tonnage and 95% in value from 2011 to 2040. 7% of all tonnage and 10% of all value of freight moved nationwide travels over Pennsylvania's freight transportation system at some point. As the maps show, Pennsylvania is truly a keystone state in terms of freight movement as much of freight traveling through the Northeast US Corridor usually must travel through the Commonwealth. Therefore, freight congestion is likely to substantially grow thereby stressing the importance of a balanced freight network that also fully utilizes rail and air service with good modal connectivity. Lycoming County's direct connection to I-80 via I-180 will play a more important role in the future in terms of freight movement, especially with Williamsport serving as the regional service center for natural gas extraction. The US-15 Corridor is also expected to grow in importance as well, especially with the completion of the Central Susquehanna Valley Thruway. I-99 designation for the portion of US-15 from the I-180 interchange north to the New York state line will also play an important piece in routing and planning for freight movements through Lycoming County since this will place this section of highway on the National Highway Freight Network.

It should be also noted that there are Federally mandated maximum weights on the National Highway System of 80,000 pounds gross vehicle weights, 20,000 pound single axle weight or 34,000 pound tandem axle weight, however the federal government does not issue permits for oversize or overweight vehicles. Issuance of such permits is a state option and the PA Motor Vehicle Code, Chapter 179 authorizes PennDOT to oversize or overweight load permits for state-owned roadways.

Multi-Modal Freight Transfer Center Feasibility Study

The only major local effort to compile and analyze freight movement data was undertaken by the Lycoming County Planning Commission, in cooperation with PennDOT, SEDA-COG and other agencies was part of a Multi-Modal Freight Transfer Center Feasibility Study process completed in June, 2006. The study focus was a 12 county area of Northcentral PA including Lycoming, Bradford, Centre, Clinton, Columbia, Mifflin, Montour, Northumberland, Sullivan, Snyder, Tioga and Union Counties where a market analysis was conducted based on a telephone survey of 111 companies involved in manufacturing and wholesale trade to determine the overall feasibility of developing a regional transfer center where freight traffic moving to or from companies within this study area could be transferred between railroad cars and trucks. The market analysis found a substantial interest in and traffic base for intermodal transportation service and identified more than 80,000 units (truckloads and container-loads) on an annual basis, that could comprise a market base for a transfer facility in the region. The two types of intermodal transfer considered were trailer on flat car (TOFC) and container on flat car (COFC) and transfer of liquid and dry bulk commodities, termed bulk intermodal.



(C) 2009 Mike Zollitsch

The analysis found that, despite a strong interest and substantial volume of traffic suitable for box intermodal service, the concept of a satellite box intermodal terminal in the region was not feasible because such a facility would not be competitive with current intermodal service through the Harrisburg terminals. A regional intermodal facility would not likely attract intermodal traffic due to longer transit times and uncompetitive costs with truck drayage between this area and Harrisburg terminals. However, the study did conclude that bulk commodities transported to and from the area directly by truck over intermediate and long distances could benefit from a lower cost alternative of a rail / truck routing through a bulk transfer facility at the Newberry Rail Yard.

Bridges

The bridge system is of extreme importance to the transportation system serving Lycoming County. As stated in Chapter 2, Lycoming County is the largest county in Pennsylvania in terms of geographic square miles and also has over 2,200 miles of river, creeks and tributaries where the highway system must cross which creates the need for many bridges. There are 733 bridges either owned by PennDOT, Lycoming County or local municipalities that are 8 feet in length or greater. A total of 515 bridges (70%) are PennDOT-owned structures. Local municipalities and Lycoming County own 218 bridges. It should be noted that other bridges exist and are owned either by other government agencies, such as PA DCNR which owns 76 bridges, or are privately owned. Those bridges are not addressed in this plan as funding sources for those bridges are outside the jurisdiction of the WATS transportation planning process.



New DuBoistown River Bridge Dedication Ceremony

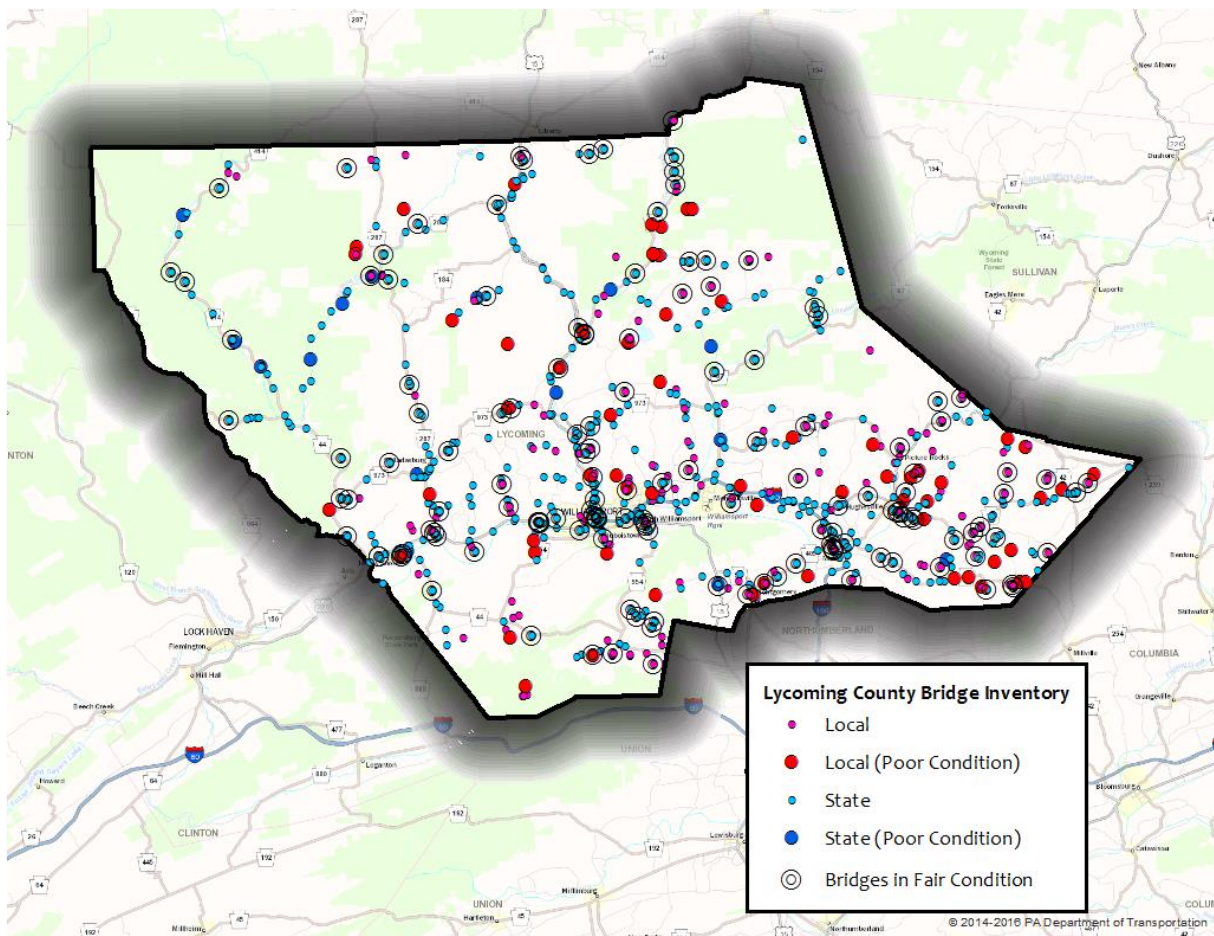
In terms of the overall state of repair regarding the bridges in Lycoming County, the situation is better than the Commonwealth as a whole. With the recent replacement of the DuBoistown Bridge, all of the major bridges over the Susquehanna River have been recently replaced or rehabilitated, which is also largely the case for bridges on the remainder of the Enhanced National Highway System. The bridge condition problem is more evident on the lower volume state and local road system. This is still a concern because many of these bridges are in rural areas involving long detour routes and can adversely impact goods movement and emergency response times.

Bridge Inspection Process

During the bridge construction boom of the 1950's and 1960's little emphasis was placed on safety inspection and maintenance of bridges. Then in December 1967 the 2,235 foot long Silver Bridge located in Point Pleasant West Virginia collapsed into the Ohio River killing 46 people prompting Congress to amend federal legislation requiring the establishment of a national bridge inspection standard. As a result, the National Bridge Inspection Standards, (NBIS) program was created federally requiring systematic inspection procedures, frequency of inspections, qualifications of personnel, bridge inspection reports and maintenance of a bridge inventory for all of the nation's publicly-owned bridge structures that are 20 feet or greater in length.

In Lycoming County, PennDOT inspects all state-owned bridges that are 8 feet or greater span length exceeding the NBIS requirements. Since 1995, the Lycoming County Commissioners have assumed the lead role to ensure federally required NBIS inspections of all 103 county and locally-owned bridges 20 feet or greater in length under a Reimbursement Agreement between Lycoming County and PennDOT which ensures 80% federal reimbursement to the County for the cost of these bridge inspections. The County fully covers the 20% local match using a portion of its Liquid Fuels Fund so local municipalities in Lycoming County pay no cost to have their bridges inspected. County Engineer, Larson Design Group is the consultant performing these bridge inspections.

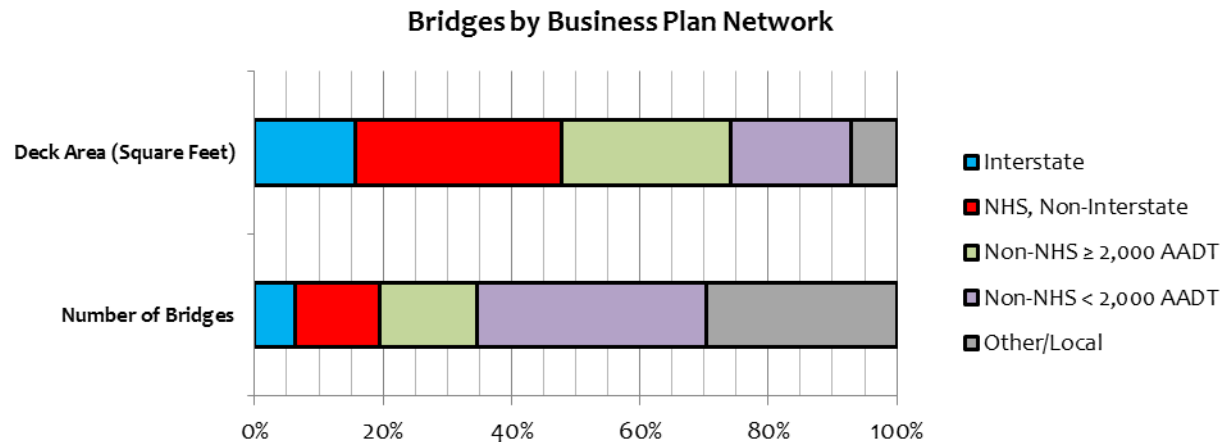
In addition, Lycoming County served as a PennDOT pilot by conducting a first ever inventory of all smaller locally-owned bridges between 8 and 20 feet in length in 2010. Although other MPO/RPO planning partners are also conducting similar inventories of small local bridges in their regions, Lycoming County is the only County that has also decided to systematically inspect the condition of these 8-20 foot long small local bridges using NBIS standards even though Federal law does not require inspection of these structures. The County uses its Liquid Fuels funding to perform these inspections with no federal or municipal reimbursement of bridge inspection costs. Alternate County Engineer, Bassett Engineering, Inc. is the consultant that performs these bridge inspections. All inspection data for locally-owned bridges in Lycoming County 8 feet in length or greater is entered into the PennDOT Bridge Management System 2, (BMS2) database. Therefore, the quality and comprehensiveness of bridge inspection data available regarding bridges in Lycoming County is the best in PA since no other planning region has NBIS quality data for locally owned bridges between 8-20 foot span lengths. Quality and complete bridge inspection data is essential to accurate assessments of bridge conditions.



Condition Assessment of Bridges in Lycoming County

The following PennDOT data provides a comprehensive summary of bridge conditions for all State-owned bridges 8 feet or greater in length and all locally-owned bridges 8 feet or greater in length. Please note, posted bridges refer to those bridges that cannot carry a 40 Ton legal load based on engineering analysis and are therefore posted with signs showing the weight the bridge can safely accommodate. Bridges that are rated with an overall condition of “Poor” are those bridges that have significant load carrying elements that are found to be in a deficient condition due to deterioration and / or damage, or where the adequacy of the waterway opening provided by the bridge is determined to be extremely insufficient to the point of causing overtopping with intolerable traffic interruptions. Major bridge components such as the deck, superstructure, substructure are evaluated using a 0-9 condition ratings scale where a 9 rating is excellent condition and 0 means deterioration is so severe the bridge must be closed to traffic. A condition rating of 4 or less for a major bridge component will classify the overall condition of the bridge as “Poor”, and condition rating of 2 or less for waterway opening also triggers the overall condition of “Poor” according to federal criteria.

It should be noted that a “Poor” overall bridge designation does not mean that the bridge is unsafe to accommodate traffic. It means that deterioration is to a point where significant rehabilitation or replacement is typically the course of action to address the poor bridge condition.



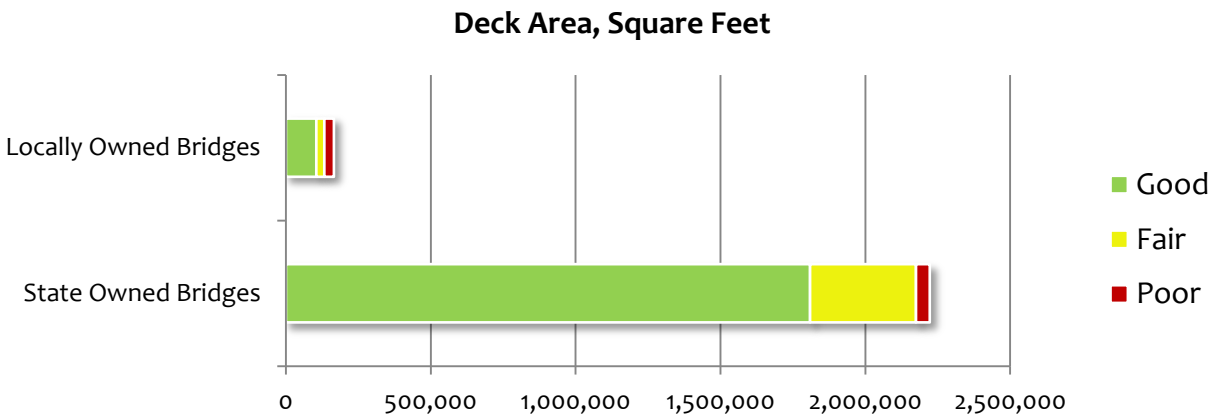
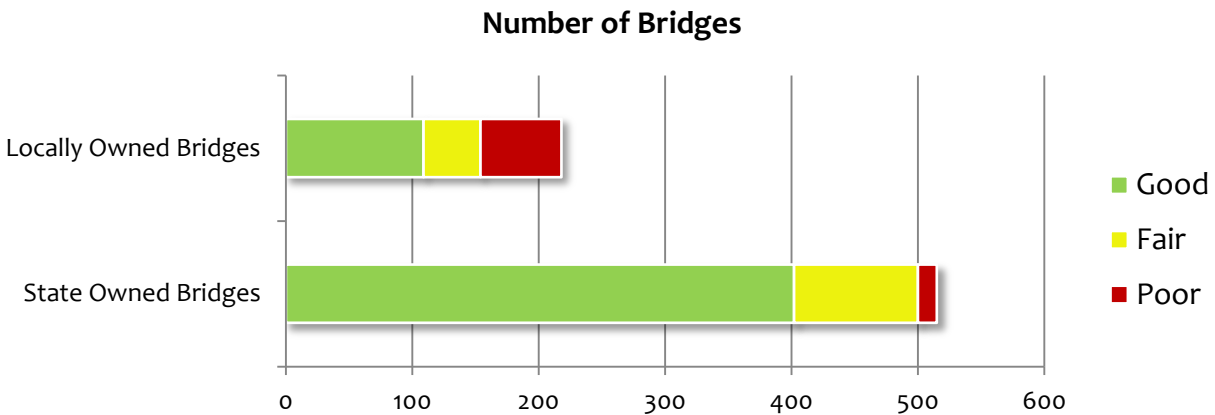
When examining current PennDOT bridge data the :

- 143 bridges, approximately 20% of all bridges, are on the National Highway System. This is also nearly half of all bridge deck area.
- Of the 143 bridges on the National Highway System, none are found to have the overall condition of “Poor.”
- No bridges are currently posted for weight limits or closed on the National Highway System.
- There are 15 state-owned bridges that have been determined to have an overall condition of “Poor” which represents approximately 3% of all state-owned bridges in Lycoming County.
- 1 state-owned bridge has a posted weight limit restriction.

In terms of statewide comparisons, Lycoming County is significantly better than the state-wide averages where 10% of state-owned bridges in PA have been determined to have an overall condition of “Poor.” 5.5% of National Highway System state-owned bridges in PA have been determined to have an overall condition of “Poor.” It is significant to note that there are an additional 86 state-owned bridges that are about to degraded to an overall condition of “Poor” unless targeted investment is made soon to correct deficiencies.

The story regarding the condition of locally-owned bridges 8 feet or greater in length in Lycoming County is much different than the condition of state-owned bridges.

- Approximately 29% of these local bridges are rated with an overall condition of “Poor.” Another 21% will be classified as “Poor” with any significant degradation in deck, substructure, or superstructure condition.
- One of these local bridges is closed to traffic and 40 bridges are posted for weight limits.



Wooden Covered Bridges

It should be noted that there are only three remaining covered bridges in Lycoming County and all are owned by the Lycoming County Commissioners and listed on the National Register of Historic Places. The Fraizer covered bridge near Lairdsville was reconstructed by the County in 2011 and this project received the state award by the County Commissioners Association of PA in partnership with the PA Highway Information Association and PennDOT as well as a PA Preservation Association Award. The other covered bridges located at the Village of Buttonwood and White Pine received major restoration in 1998, however additional minor repairs are now needed.



Fraizer Wooden Covered Bridge Near Lairdsville

Public Transportation

Lycoming County is served by an excellent public transportation system consisting of fixed route bus service, community shared ride service, intercity bus service, taxi service, and ride hailing services. This section of the plan will provide an overview of each type of transit service that is provided.

Fixed Route Bus Service

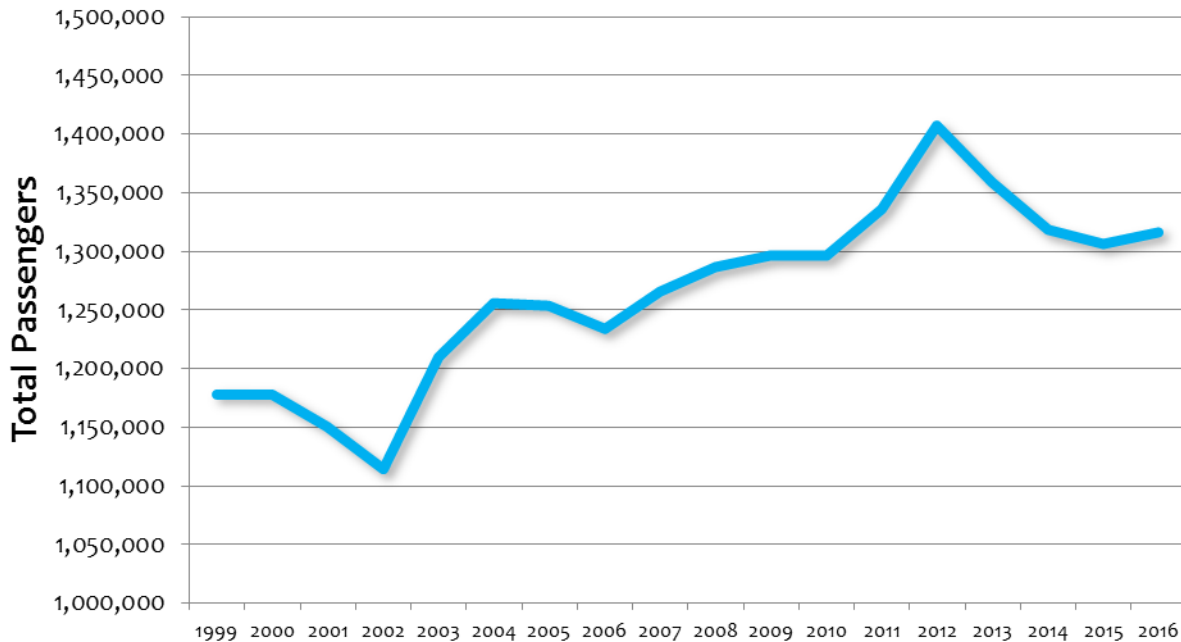
River Valley Transit (RVT) is the only fixed route bus service provider in Lycoming County. RVT manages a bus network of 19 fixed routes operated in-house by RVT employees. The system is comprised of a fully accessible fleet of 27 buses consisting of standard 35 and 40 foot long transit coaches, including 18 Compressed Natural Gas (CNG) buses.

The RVT primary service area includes most of the growth areas of Lycoming County serving over 70,000 residents. Approximately half (54%) of the current urbanized area of Lycoming County is within 1,000 feet straight-line distance of a transit stop. Parts of 21 of Lycoming County's 52 municipalities are within the urbanized area which includes 77% of the county's total population. It is estimated that half of the population of this urban core of the county is with 500 ft straight line walking distance of an RVT transit stop. In total, approximately 43,750 people (38% of the total county population) is within ideal walking distance of a transit stop.



RVT Ridership Characteristics and Trends

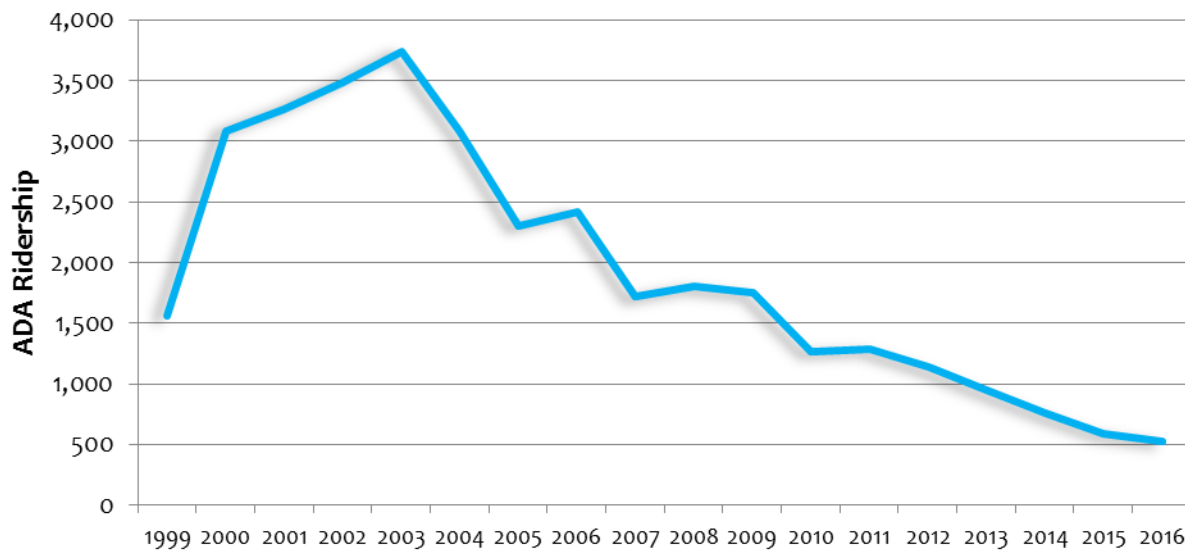
RVT has increased ridership steadily since 1999 with an overall 12% increase in total passengers served and an all-time passenger record in 2012 of 1,406,478 passengers. The chart below shows RVT total annual passengers over the period 1999-2016:



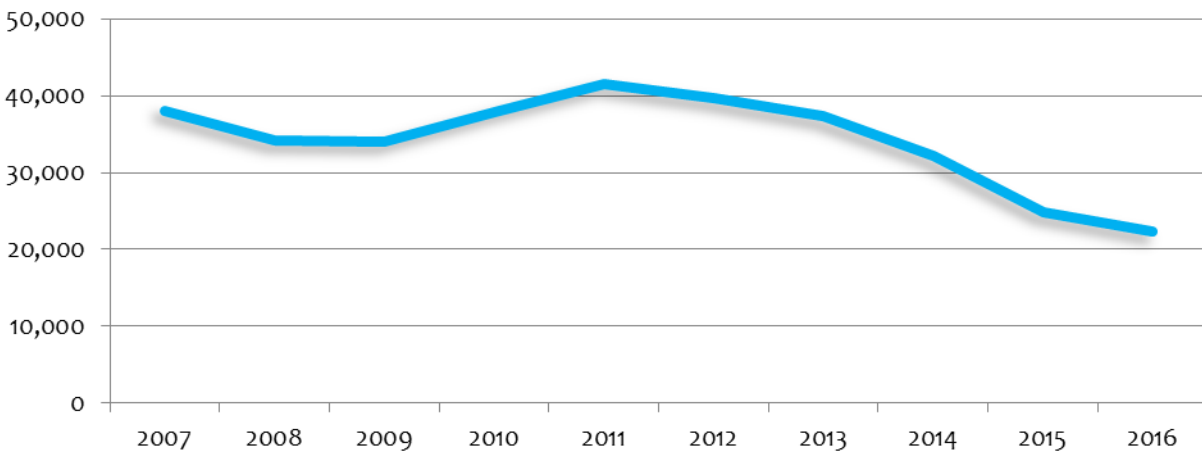
Because of special RVT promotional programs such as “Senior Bonus Bucks” where senior citizen bus patrons aged 65 or older earn bonus bucks for every ride that can be redeemed for merchandise, RVT senior citizen ridership saw steady increase from 1999-2013. However, from 2013-2016, RVT saw a sudden 15% decrease in senior citizen ridership.



River Valley Transit Plus, under contract with STEP, Inc. provides complimentary demand responsive van service as required by the Americans with Disabilities Act of 1990, (ADA) since 1992. This service continues to meet the needs for individuals with disabilities in the RVT service area and has transported more than 40,000 passengers since its inception. However, ridership has been declining during the past decade as programs have been initiated by other agencies to transport persons with disabilities along with increased ADA eligible passenger use of RVT low-floor buses equipped with lift ramps.



Due to funding issues, STEP suspended all night time service after 6:00 PM and weekend service. RVT now provides ADA complementary demand responsive paratransit service after 6:00 PM on weekdays and all day Saturdays as well as holidays when RVT provides regular fixed route service in compliance with ADA law. Trip reservations for ADA service are still coordinated between RVT and STEP. RVT continues to provide deviated fixed route transit service to Hope Enterprise clients employed at the sheltered workshop at the Reach Road Industrial Park. However, Hope ridership has decreased by nearly 50% since peak ridership of 41,547 in 2011 as noted below:



performance on these routes changes over time. Therefore, it is helpful to monitor RVT's system performance on a more detailed basis by comparing a variety of indicators across individual routes. All RVT transit vehicles have electronic validating fareboxes which record passengers as the board and pay fares thus assisting RVT in providing more detailed analysis of performance of each route.

RVT Fares

Below is the RVT fixed route fare structure. RVT traditionally has one of the lowest transit fare structures in Pennsylvania in order to ensure accessible and affordable public transit service to those that need it. However, it must also be recognized that fare increases will be necessary in order to keep pace with increasing operating costs. The RVT goal is to raise fares when needed with only minimal disruption of ridership, and thus RVT has moved to a policy of more frequent, incremental increases in selected categories rather than more dramatic across-the board fare hikes which have tended to drive more patrons away from the system.

EZ Fares		Standard Fares	
One-Day EZ Pass from Trade & Transit Center	\$2.25	Cash	\$2.00
One-Day EZ Pass from Driver	\$2.50	Tokens (4 for \$5.00)	One
2-Ride pass from Trade & Transit Center	\$2.25	Senior 65+ (with I.D.)	Free
2-Ride pass from Driver	\$2.50	Youth (17 and under)	\$1.00
7-Day EZ Pass	\$12.00	Disabled (with I.D.)	\$1.00
10-Ride EZ Pass	\$12.00	Child (age 5 and under)	Free
20-Ride EZ Pass	\$22.00	Transfers	Free
31-Day EZ Pass	\$40.00		

RVT's EZ Fares magnetic pass cards represent nearly 63% of all revenue paying passengers utilizing these cards. Less than 2% of these passengers paid cash fares or used tokens.

RVT Facilities

Garage & Office Facility

In 2011, RVT completed a \$ 12 million project to renovate and double the size of its garage and office facility located at 1500 West Third Street in the City of Williamsport. The new facility will meet RVT's operational, administrative, and fleet maintenance needs for the foreseeable future. Numerous "green" technology features were incorporated as part of the project such as geo-thermal heating and cooling, time controlled lighting, rapidly rising and dropping garage doors to reduce heating and cooling costs, etc.

In 2011, RVT was awarded \$ 3.5 million through FTA's Clean Fuels Program further retrofit this maintenance facility to create a fast-fill CNG fueling station that will accommodate CNG fueled vehicles that will accommodate RVT's strategy to eventually replace all of its diesel buses with CNG buses to significantly lower



its operating costs and reduce carbon emissions while capitalizing on the Marcellus Shale natural gas resources abundant in the County. This CNG fueling facility will be completed in September, 2013 which can be open for business to other municipalities, private companies and the general public.

Church Street Transportation Center

Opened in April 2012 the Church Street Transportation Center is a Williamsport Parking Authority parking deck facility. The four level building provides 350 parking spaces and houses Fullington Trailways, an intercity motorcoach company. The facility offers state-of-the art, self service ticketing and payment options, elevators and a security system. Park and ride facilities supporting RVT's Downtown Connector and bus bays are included along with public art depicting the heritage of Lycoming County.



Trade and Transit Centre

The Williamsport Trade and Transit Centre was dedicated in 1999 as an intermodal transportation facility in the heart of the Williamsport Central Business District. This facility accommodates about 4,100 RVT riders daily and includes bus bays, a restaurant, community meeting room, and a community theater. The completion of this project led to a 16% increase in transit ridership of the RVT system so planning began in 2001 to further expand this facility as part of Trade and Transit Center II.

Trade and Transit Centre II

This expansion began with the demolition of the existing 300 vehicle Mid-Town Parking Deck which was in severely deteriorated condition. The new building greatly enhanced the utility and function of the existing Trade and Transit Centre by including a drivers lounge, second passenger waiting area, community room, additional commercial areas rented to small retail outlets, three additional bus bays. Additionally, a large open public square was created to enhance the walkable public space in the Williamsport Central Business District.



RVT capital and operating financing will be addressed in Chapter 4 of this plan.

Community Shared Ride Program

Incorporated in 1966, the Lycoming-Clinton Counties Commission for Community Action (STEP), Inc. is a private, non-profit community action agency. Success Through Engagement and Partnership is achieved in two ways. First, STEP's Programs engage individuals, families and communities in their own strategies for success - the customers become involved directly, and truly own that which they achieve. Secondly, because no single organization can "do it all", success is achieved through partnerships with the complementary groups and entities that can also assist these individuals, families and communities.

One of the many social services STEP, Inc. provides is shared ride demand responsive transportation services to the residents and visitors of Lycoming and Clinton Counties. According to STEP, their vision is “to provide safe, dependable and timely transportation services”.

Service Description

STEP Transportation provides door-to-door, shared ride service from 6:00 AM – 6:00 PM Monday through Friday except STEP observed holidays. Formerly until 2012, service was provided 24 hours daily/ 7 days per week, however due to limited funding resources and overall system ridership declines, service cut-backs were deemed essential to preserve the overall future financial viability of the system. Transportation is available for trips within the primary service area consisting of Lycoming and Clinton Counties with special services within Centre, Union, Northumberland, Columbia, Snyder, and Montour counties. STEP services cover 5,004 square miles and serving a population base of 155,349 with 16.4% of the population comprising senior citizens aged 65 and older. Once per day service to Geisinger Medical Center (GMC) is available with the van arriving at GMC at 9:30 am and departing at 2:00 pm. Transportation is also available to K&C Dentures in Lamar on Tuesdays and Thursdays.

Through the Medical Assistance Transportation Program, (MATP), transportation is provided on an as-needed basis to serve medical appointments throughout the Commonwealth. Consumers must reserve their ride with STEP before noon on the preceding business day. Although all residents and visitors within Lycoming and Clinton Counties are eligible for transport by STEP, some consumers may be eligible in transportation sponsoring programs, such as Persons with Disabilities, Medical Assistance Transportation Program, Area Agency on Aging, Shared Ride and Employment Transportation Programs making fares more reasonable.



STEP operates a 35 vehicle fleet that was used to provide over 110,302 total shared ride passenger trips between July 2016-June 2017. Of these total trips, 41,047 were senior citizen (aged 65+) or 37% of total trips which has remained steady declining over the past five years, with an actual increase in Program Year 16-17. Another 9,201 trips or 8% of total trips were attributed to the Persons with Disabilities Program.

Fares

Transportation fares per one-way trip are based on ride sponsorships and a zone-based, miles-driven fare structure.

Sponsored Transportation

Medical Assistance Transportation Program-Sponsored Trip	No Charge
Age 60-64 STEP Office of Aging-Sponsored Trip	Refer to Fare Structure
Age 65+ STEP Office of Aging-Sponsored Trip	No Charge
General Public (Full Fare) and Third Party-Sponsored Trip	Refer to Fare Structure

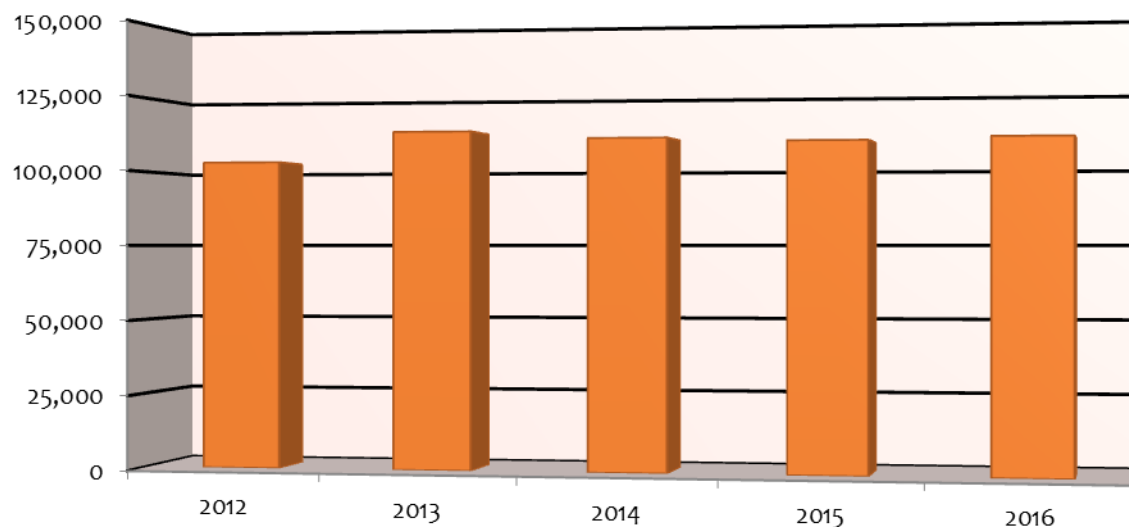
Fare Structure

Mileage Zone	General Public (Full Fare)	Persons with Disabilities and Americans with Disabilities Sponsored Trips	Lottery Sponsored (65 and Older but not Office of Aging Sponsored)	Age 60-64 (STEP Office of Aging Sponsored Trip)
Less than 5 Miles	\$18.30	\$4.00	\$2.75	\$1.00
5 to 10 Miles	\$20.00	\$4.00	\$3.00	\$2.00
10 to 15 Miles	\$25.00	\$4.00	\$3.75	\$3.00
15 to 25 Miles	\$30.00	\$4.50	\$4.50	\$4.00
25 to 35 Miles	\$45.00	\$6.75	\$6.75	\$5.00
Over 35 Miles	\$50.00	\$7.50	\$7.50	\$6.00

Ridership Trends

The impact STEP has on the communities it serves is tremendous as there are thousands of consumers who maintain their health and independence by using shared ride services. This also includes employed persons seeking transportation to and from employment and Pre-school children and their families being connected to school readiness activities through transportation services. Usage of STEP transportation services has been very steady for the past 5 years.

Total STEP Transportation Ridership



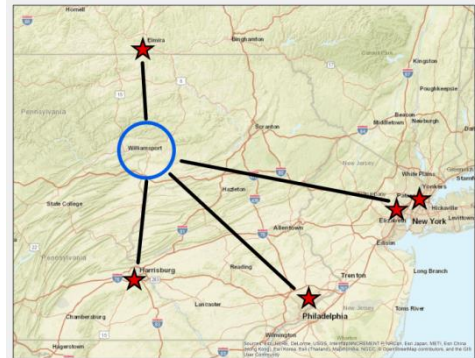
STEP operating and capital assistance program financial information will be provided in Chapter 4.

Intercity Bus

There is one privately-owned company that serves the intercity bus passenger terminal in Lycoming County.

Fullington Trailways

This private motorcoach company based in Clearfield, PA took over intercity bus service through Williamsport from Susquehanna Trailways in 2017. Fullington offers charter tours and daily service from the RVT Church Street Transportation Center to New York City, Newark, Philadelphia, Harrisburg, and Elmira, New York. Buses run daily, seven days a week, with two departures each day to Philadelphia, Harrisburg, NYC, and Elmira and one daily departure to Newark.

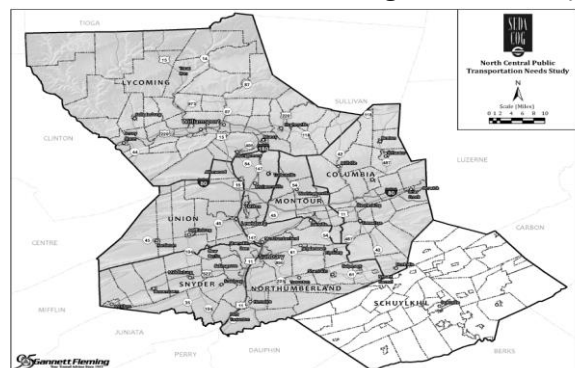


Regional Transit Coordination

Central PA Transportation Coalition

Over the past five years, the Lycoming County Transportation Supervisor has chaired this Coalition consisting of numerous public and private sector human service and transportation related organizations in the Northcentral PA region whose mission is to establish a mechanism to meet the regional needs for public transportation so that area residents have alternative, accessible, efficient and affordable means of travel. River Valley Transit, STEP and Susquehanna Health Staff also participate on the Coalition from Lycoming County. The Coalition recognizes that a more regional approach not limited by county boundaries should be considered when conducting strategic planning for delivery of public transportation services and full cooperation is essential among providers and stakeholders to achieve success. The SEDA-Council of Governments undertook a comprehensive needs assessment which was finalized in 2011 that reviewed current transportation services in a six county region consisting of Lycoming, Union, Snyder, Northumberland, Montour and Columbia Counties with funding assistance primarily from PennDOT. Gannett Fleming was the study consultant. The study area is shown on the map depicted on the right-hand side of this page:

The study provided an inventory and analysis of existing transportation services, documented community characteristics, assessed current transit needs and potential new demand, developed alternative strategies to address present and future needs and prioritized strategies for future plan implementation.



A regional transit summit was held in November of 2011 in Danville, PA to publicly present the study recommendations. Over 100 individuals representing a large cross-section of public transportation providers, social service organizations and transit consumers were in attendance.

The plan recommended six primary alternatives as the highest priorities for future implementation

- **Regional Public Transportation System**
- **Regional Coordination Council**
- **Evening and Weekend Service Expansion**
- **Centralized Resources Directory**
- **Local Community Routes with Deviation**
- **PennDOT Coordination Pilot Project**



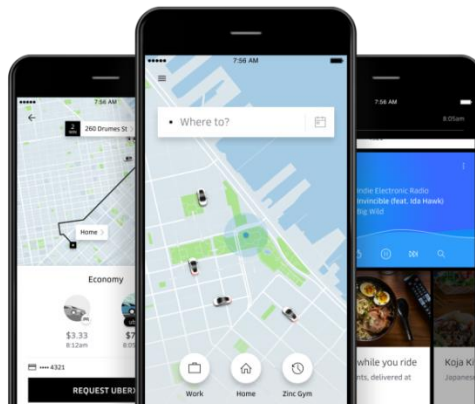
Currently the Coalition is focused on working on exploring expansion of fixed route transit services within the six county region. In addition, RVT has secured PennDOT approval and funding to initiate transit service extensions to the Lock Haven area in Clinton County scheduled for February 2018. Also, WATS has been partnering with the SEDA-COG MPO to update the Joint Human Services Coordinated Transportation Plan. This joint approach has been helpful during the implementation of the Coalition recommendations.

Taxi Service

The Billtown Cab Company, located at 3575 West Fourth Street is the PA PUC licensed taxi provider in Lycoming County providing 24 hour per day service.

Ride Hailing Services

Ride hailing services use a smart phone app interface to allow users to contract directly with drivers to schedule rides. Both Uber and Lyft have a presence in the greater Williamsport area. Uber began service in Williamsport on August 4, 2016. As of November 2017 there were fewer than 500 active drivers working for Uber and over 3,000 active users. No data on Lyft is available.



Uber app interface (Uber, 2017)

Air Service

The Williamsport Regional Airport is the only scheduled commercial air carrier service airport in Lycoming County. There are 15 scheduled commercial air service airports in the Commonwealth.

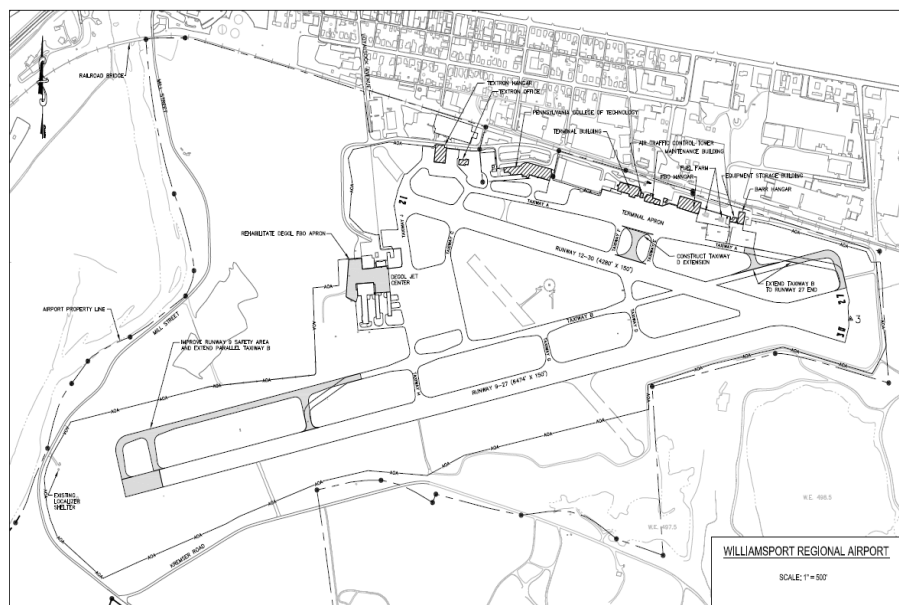


The Williamsport Regional Airport is located in the Borough of Montoursville approximately 5 miles east of the City of Williamsport. The airport was originally developed in 1929. On January 27, 1947 a joint resolution was adopted by the City of Williamsport and Lycoming County Commissioners creating the Williamsport Municipal Airport Authority incorporated under the 1945 PA Municipal Authorities Act. . The Airport Authority Board of Directors consist of seven members appointed by the Lycoming County Commissioners who are responsible for determining airport policy and directing the overall airport operations employing full and part-time staff. On July 21, 1947 the airport land and improvements were deeded by the City of Williamsport to the newly created Airport Authority.

Major Airport Facilities Inventory

There is a large land area (735 acres) and numerous physical facilities that are under Airport Authority ownership and control. This area is depicted on the official Airport Layout Plan, (ALP) approved by the Federal Aviation Administration

Existing Airport Layout Plan, (ALP)

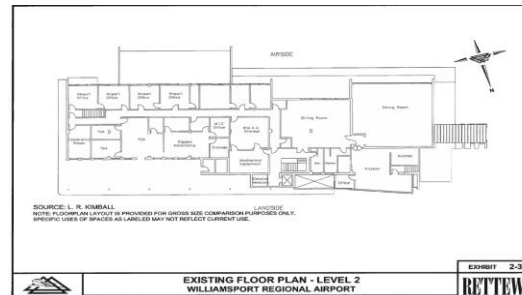
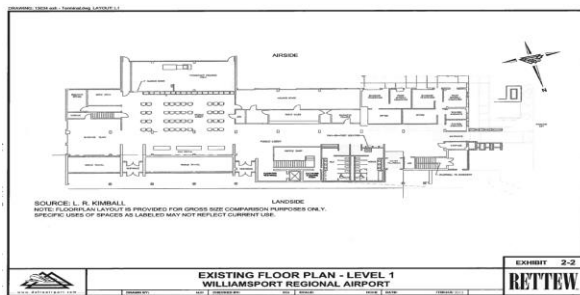


Terminal Building

The Airport Terminal Building, originally constructed in 1947, is a two-story facility consisting of approximately 27,000 square feet of space. There are restrooms, airline ticket counters and offices,

baggage screening, while public seating, passenger security checkpoint, and secure passenger hold room occupy the middle of the building. Car rental, baggage claim and a travel agency are located to the east of the central entryway. The second floor is occupied by a restaurant (Cloud 9), Airport Authority administrative offices, Transportation Security Administration, (TSA) offices, storage, a mechanical and electrical room.

Existing Airport Terminal Building



In June, 2012, the Airport Authority publicly announced a major project to replace the existing terminal building given its poor physical condition and limited space for current operations and future anticipated growth. This project will be more fully discussed under the Proposed Airport Improvements section of this plan.

Air Traffic Control Tower, (ATCT)



The Airport has an air traffic control tower, originally constructed in 1959, to promote the safe, orderly, and expeditious flow of air traffic. The tower is operated through a contract operator, Air Midwest and federally subsidized under the FAA Air Traffic Control Tower Cost Sharing Program with a county match. The hours of operation are from 6:30 a.m. to 10:30 p.m. daily.

Runways and Taxiways



Runway 09-27 is the primary runway at the Airport. This grooved bituminous paved runway is 6,824 feet long by 150 feet wide and is in good condition. The runway pavement strength is single wheel 65,000 lbs., dual wheel, 100,000 lbs and double dual tandem wheel, 190,000 lbs. The runway length was recently extended by 350 lineal feet at the western end in 2009 to enhance aircraft operational

safety. A full parallel taxiway system was also recently completed for this runway leading to the main aprons and other aircraft parking facilities so it is in excellent condition. This runway is served by high intensity runway lights. All runway pavement markings are in accordance with FAA standards for Airport Markings. All signage is in compliance with Part 139 requirements.

Runway 12-30 is the secondary runway at the Airport. This bituminous over concrete runway was rehabilitated in 2002 and is in good condition. A parallel taxiway is available for this runway leading to the main aprons and other aircraft parking facilities. All lighting, signs and pavement markings are in compliance with FAA requirements.

Other runway related aviation navigational aids at the airport include a rotating beacon, lighted wind indicator, Medium Intensity Approach Lighting System, (MALSR), Visual Approach Slope Indicators, (VASI), and Precision Approach Indicators (PAPIs).

Fixed Base Operator, (FBO)

There is one full service fixed base operator at the airport, Energy Aviation. The FBO provides a full range of general aviation services which include aviation fuel sales, aircraft ground handling, aircraft parking (ramp or tiedown), hangars, corporate passenger terminal and lounge, charter flights, flight training, aircraft rental and other services. 100 Low Lead and Jet A fuel is available.

Based Aircraft

As of November 2017, there are 34 based aircraft at the airport consisting of 24 single engine, 11 multi-engine, 2 jets, 1 helicopters.

Hangers

There are 10 hangers at the airport; 1 ten unit hanger, 2 six unit hangers, 4 unit hangers with combination hanger / office, and 3 unit hangars. All hangers are currently occupied but additional space is available.

Other Airport Facilities

There are Aircraft Rescue and Firefighting, (ARFF) and Equipment Storage buildings that house fire and rescue and maintenance vehicles. There is a fuel farm and aircraft de-icing pad. The main parking area is located west of the terminal building providing 268 parking stalls. An additional 73 parking spaces are reserved for rental cars. An additional 33 parking spaces are provided for airport tenants, employees and restaurant patrons. The PA College of Technology owns and operates the Kathryn Lumley Aviation Center which provides college student instruction on aviation and avionics related programming.



Lumley Aviation Center

Currently, the Airport Authority leases building space or land to 24 different tenants operating at the airport.

Current Airport Tenants*Piedmont Airlines**Hertz Rent-a-Car**Avis/ Budget Rent-a-Car**Enterprise Rent-a-Car**Cloud 9 Restaurant**World Travel International**Lycoming Engines**FAA**Energy Aviation, IPT**Barr Motors**McClure-Johnson Company**AIRMEN HVAC Services**Civil Air Patrol**Diggins Advertising**Duraclean Restoration**TSA**Michael D. Mertes, Inc.**Exsentry Data Solutions**Geisinger Medical Center Life Flight**Tom Drewett & Tom Brown**Sooner Pipe**EXCO Resources**Exsentry Data Solutions**Consolidated Graphics*Airport Hazard Zoning

Pennsylvania's Airport Hazard Zoning Law, Act 164 of 1984, requires those local municipalities that fall within an airport hazard area to adopt, administer and enforce airport zoning regulations (ordinances) to ensure a safe and reliable network of public use airports as a key mechanism to preserve and protect these key transportation assets.

Twelve Lycoming County municipalities are required to enact an airport hazard zoning either as an amendment to their overall zoning ordinance or as a free standing ordinance. According to the PennDOT Bureau of Aviation, only three of these municipalities are in compliance with Act 164 as illustrated below:

Airport Hazard Zoning Compliance Status

AIRPORT	MUNICIPALITY	COUNTY	Ownership	Airport Use	AIRPORT CLASS	ACT 164 Ord.?	Ord On file?
WILLIAMSPORT REGIONAL AIRPORT	WOLF TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	CITY OF WILLIAMSPORT	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	UPPER FAIRFIELD TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	Yes	☐
WILLIAMSPORT REGIONAL AIRPORT	SOUTH WILLIAMSPORT BOROUGH	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	MUNCY TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	Yes	☐
WILLIAMSPORT REGIONAL AIRPORT	MONTOURSVILLE BOROUGH	LYCOMING	PUB	PUB	Commercial Service	Yes	☐
WILLIAMSPORT REGIONAL AIRPORT	MILL CREEK TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	LOYALSOCK TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	HUGHESVILLE BOROUGH	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	FAIRFIELD TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	CLINTON TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐
WILLIAMSPORT REGIONAL AIRPORT	ARMSTRONG TOWNSHIP	LYCOMING	PUB	PUB	Commercial Service	No	☐

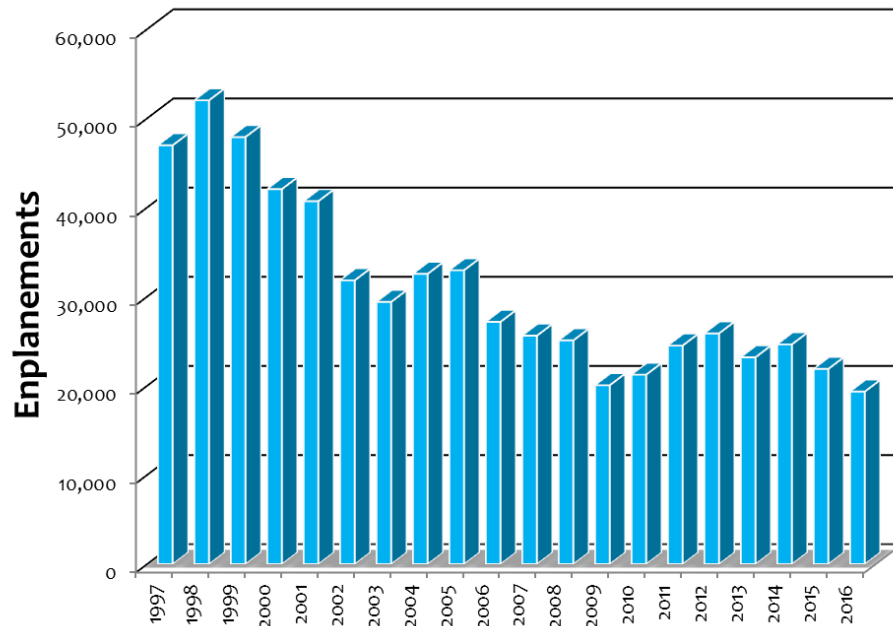
From a statewide perspective, only about 40% of PA municipalities required to enact airport hazard zoning are in compliance according to PennDOT BOA. The PennDOT, MPO/RPO and airport operators are now conducting additional municipal outreach to strengthen the compliance rate, including the WATS MPO and Airport Authority.

Commercial Air Service Description and Trends

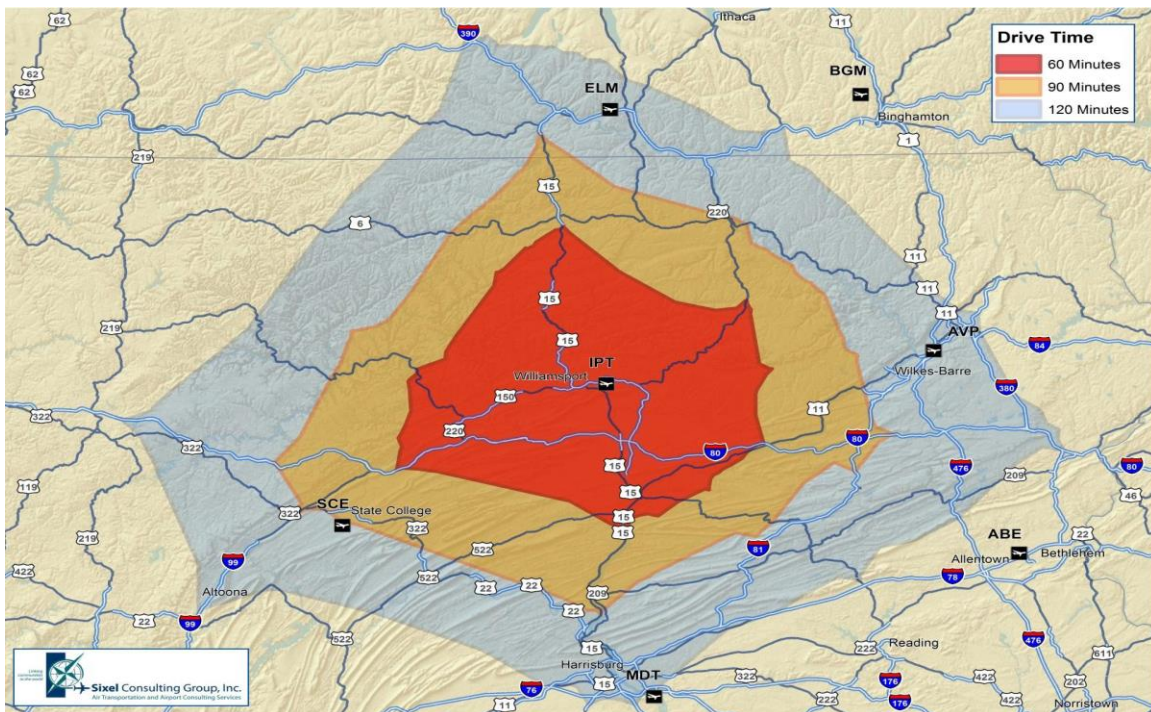
The Williamsport Regional Airport has had continuous scheduled airline service for 71 years. During that time, the nature and type of service has varied considerably. For example, in the 1970s, airline service was provided by Allegheny Airlines and Pocono Airlines with service to Pittsburgh, Philadelphia, Newark and Wilkes/Barre/Scranton providing as many as 15 arriving and 15 departing flights per day. However, since airline deregulation, numerous airline organizational restructurings, reduced aviation demand stemming from 2001 terror attacks and other factors, commercial service availability at the airport has been significantly reduced culminating in the loss of Pittsburgh service in 2004 as part of US Airways downgrading the Pittsburgh International Airport from a hub to a “focus city”. Therefore, since 2004 thru November 2017, the airport commercial service is limited to three daily round trip flights provided by US Airways Express to US Airway’s hub at the Philadelphia International Airport using DeHavill and Dash-8 aircraft configured in a 36 seat arrangement. It should be noted that the Philadelphia airport connects to over 160 additional cities worldwide. On November 29, 2017, American Airlines, through their wholly-owned regional carrier Piedmont Airlines, began regular jet service at Williamsport, utilizing 50-passenger Embreair EMB-aircraft. American will use jets exclusively on Williamsport service in the future.

The following Chart illustrates historical passenger enplanement activity at the airport during the past 20 years. Enplanements were strong until the 9/11/01 terror attacks occurred which negatively affected national air travel and caused a steep passenger decline at the airport. Enplanements have

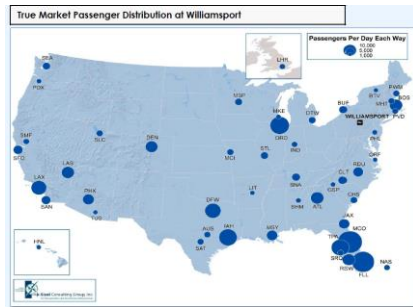
been steadily rebounding since the Marcellus gas boom activity has emerged in a substantial way since 2009.



To better understand the potential air service market opportunities, the Airport Authority and Williamsport-Lycoming Chamber of Commerce engaged Sixel Consulting Group, Inc. to conduct a True Market Study for the Airport which was completed in January, 2013. This study better defined the airport catchment area as shown below:



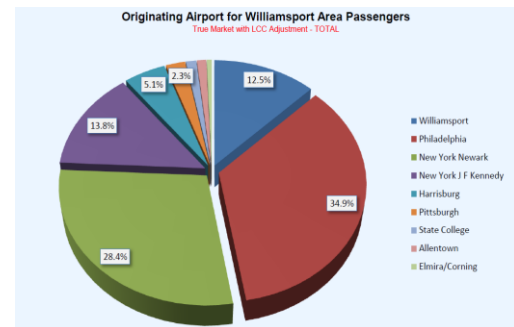
Using a variety of data sources such as air passenger ticket information, demographic and socio-economic data in the catchment area, Sixel was able to determine the estimated air service demand within the catchment area and determine how much of this demand was actually captured by the Airport. The study concluded that only 12.5% of 414,772 total air travelers within the catchment choose the Airport as their originating airport.



About 35% of Williamsport

catchment area passengers originate

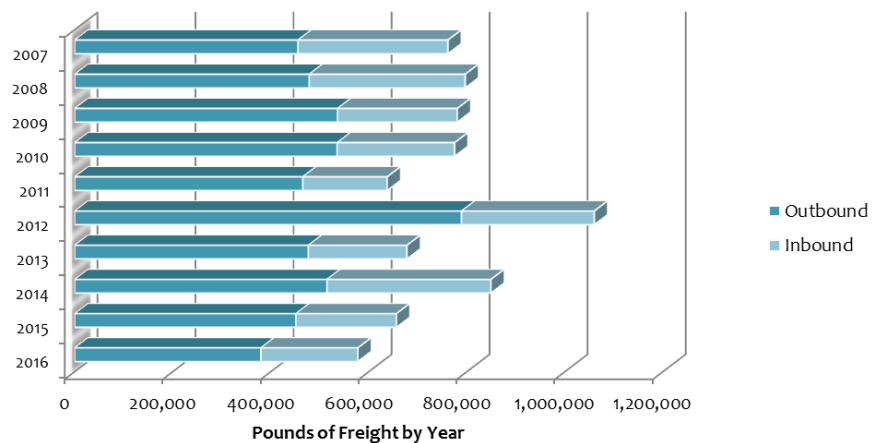
their flight at the Philadelphia International Airport while most of the remaining passengers use Newark and JFK Airports in the New York City / NJ Areas.



The top five passenger markets for the Williamsport Area are Orlando/Sanford FL, South Florida, Chicago Ill, Houston, Tx and Tampa / St. Petersburg, FL. The study concluded that the Airport's air passenger market is large enough to support additional service and the Airport Authority is currently recruiting additional air carriers to capture a greater share of passenger leakage with priority emphasis on direct air service to Washington / Dulles and Charlotte. This initiative will introduce airline competition, more customer choices and reasonable fares.

Air Freight Service

There are three types of scheduled air cargo operations at the airport which use aircraft: airline passenger related baggage and cargo, integrated express carriers, (Fed Ex and UPS) and business and industry generated cargo. In 2012, a total of 789,265 lbs. of outbound air freight was generated and 270,755 lbs. of inbound air freight was received at the airport. This is a substantial increase over 2011 air freight activity where only 465,387 lbs. of outbound air freight was generated and 172,106 lbs of inbound freight was received.



Major Airport Facility Planned Improvements

The Williamsport Municipal Airport Authority has taken an aggressive approach toward modernizing airport facilities to ensure continued availability of safe convenient affordable and reliable air services for airport customers and tenants. Toward this end, the Airport Authority has adopted an

Airport Master Plan and a supplemental Long Range Plan which defines and prioritizes proposed improvements. Major planned improvements are highlighted in this section.

Terminal Building Replacement Project

To address numerous structural and operational space deficiencies associated with the aging airport terminal building outlined earlier in this chapter, the Airport Authority retained Rettew as its consultant to complete the FAA required feasibility studies, environmental assessment and design of a replacement airport terminal building that will better meet the growing needs of the airport during the coming decades. The proposed two story new terminal building will expand available space from 27,000 to nearly 35,000 gross square feet incorporating the following major features amenities based on extensive input from community leaders, airport customers and tenants. Murray Architects and Reynolds Construction provided final design and construction management services.

New Terminal Building Highlights



The new terminal building will provide numerous benefits:

- Provides space for two additional airlines
- Provides passenger screening lanes and a secure hold room sized to accommodate boarding of larger aircraft for approximately 150-200 passengers, with comfort facilities
- Provides for a modern baggage claim facility
- Provides 1500 sq ft of concession area
- Provides sufficient space to adequately accommodate all current and future office layout space needs of existing tenants and airport administration
- Incorporates energy efficient green technology building features
- Offers modern aesthetic look using glass and steel indicative of an airport terminal, thus enhancing the gateway to the community.
- Utilizes timber-frame structure showcasing area's lumbering history
- Enhances views of airfield and mountains for terminal users

- Improves vehicular and pedestrian ground access at terminal entrance with enhanced lighting and more efficient traffic flow configuration

A new two lane access road was programmed by the WATS MPO to connect the airport with Interstate 180, but the County discontinued the project due to weak needs justification and limited funding availability. The FHWA has approved use of the federal earmark for improved airport access for the Montour Street Extension Project.

The Airport Authority sited the new terminal building east of the existing building with the current terminal remaining operational until the new facility is constructed to avoid disruption to airport customers and tenants. The existing terminal building would then be demolished and additional parking supply would be provided. The Authority completed the feasibility study in early 2014 and the environmental assessment and design phase completed in Summer, 2015. (Project financing information for this \$ 16.2 million project will be included in Chapter 4.) Former Governor Corbett visited the airport in March, 2013 to review the plans for this exciting new project and to showcase Lycoming County's use of Act 13 funds for aviation purposes.



Governor Tom Corbett visits Airport Terminal

Construction of the new terminal facility began in July 2017 with a substantial completion date set for the end of August 2018. The new 30,000 square foot facility is located east of the existing Air Traffic Control Tower and has been designed with future expansion capabilities.



New Airport Terminal Construction, 2017

Airport Runway Approach Improvements

While the Williamsport Regional Airport has the facilities and capacity to provide service to nearly any type or size of aircraft, the major problem with the Airport had been the runway approach minimums. Up until 2010, there was a single published approach to the Airport – the Instrument Landing System (ILS) approach to Runway 27. Additionally, this approach was the highest minimums of any scheduled-service Airport in Pennsylvania. The minimums were 500' Height Above Terrain (HAT) and 1 1/4 mile Visibility.

In the 2006 Airport Master Plan, the primary goals for the development of the Williamsport Regional Airport were to lengthen Runway 9-27 to its maximum possible length, given the terrain and other physical constraints, to develop published approaches to all runway ends, to develop a second ILS approach to Runway 9, and to achieve a Category 1 Approach for Runway 27. Since the completion of the 2006 Master Plan, Runway 9-27 has been lengthened from 6,474' to 6,824' and, in addition to the ILS approach to Runway 27, there are RNAV GPS approaches to Runways 9/27 and 12/30.

The Airport Authority is currently completing the final phases of a project to improve the Approach Minimums for Runway 9-27. This project included removing tree obstructions located within the Runway 9 approach, and displacing the Runway 27 threshold to eliminate the Lycoming Valley Railroad as a controlling obstruction. Currently the airport is nearing completion of this aggressive project that has lowered the approach minimums to 250' and 3/4 of a mile visibility. Final phases of this project include the completion of a milling and overlay of runway 9/27 along with the installation of a new MALSR landing system.

The remaining planned airport capital improvements will be further detailed in Chapter 4.

Economic Impact of Airport

In 2011, the PennDOT Bureau of Aviation completed an Aviation Economic Impact Study. The economic impact findings for the Williamsport Regional Airport are summarized below.

Employment	701 jobs
Payroll	\$22,542,300
Economic Output	\$64,931,800

Jersey Shore Airport

There is a privately-owned, public use general aviation airport situated approximately two miles east of Jersey Shore in Nippenose Township. This airport has a 3,059 foot long by 130 foot wide unpaved sod runway with no published instrument approaches and no air traffic control tower. There are low intensity runway edge lights and runway edge markings. Air traffic activity is limited to general aviation use. Privately owned aircraft are based at the airport. The economic impacts of the airport from the 2011 Bureau of Aviation Economic Impact Study:

Employment	1 jobs
Payroll	\$54,200
Economic Output	\$224,300

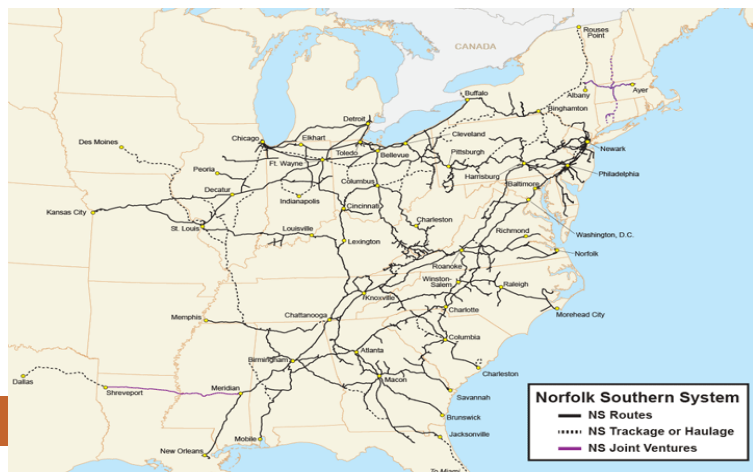
Rail Service



Lycoming County is served by two freight railroads, Norfolk Southern Railways and the Lycoming Valley Railroad. This section of the plan will further discuss both of these railroads which are a critical component of the region's multi-modal transportation system.

Norfolk Southern Railway

Norfolk Southern Railway is a Class I railroad in the United States, owned by the Norfolk Southern Corporation with headquarters in Norfolk, Virginia. Since 1982, this company owns and operates over 20,000 route miles in 22 eastern states, the District of Columbia and the province of Ontario, Canada. In 1999, the system grew substantially with the acquisition of over half of Conrail. The most common commodity hauled on the railroad is coal from mines in PA and other surrounding states in their service area.



There are three other Class I railroads operating in the Commonwealth, (CSX Transportation, Soo Line Railroad Company, Grand Trunk Corporation), however Norfolk Southern is clearly the largest in terms of route miles operated and ton miles of freight hauled annually. There are seven different main lines operated by Norfolk Southern in Pennsylvania. The only line traversing Lycoming County is the Harrisburg-Buffalo, New York Mainline connecting at the southern end to the Harrisburg (Rutherford) large intermodal rail yard serving Central PA. Service from this facility includes seven-day-per week trains to/from Chicago, Elizabeth (NJ), Kansas City, Los Angeles, Norfolk, San Bernardino, and St. Louis. This facility handles Trailer-On-Flat-Car, (TOFC) and Container-On-Flat-Car, (COFC). In addition, 48 and 53 foot EMP containers are handled at the facility. The Harrisburg-Buffalo mainline can accommodate double stack freight cars and 286,000 pound car loadings.

The next map depicts the 37 mile long Norfolk Southern rail system map within Lycoming County in blue and the Lycoming Valley shoreline rail line (red) to be discussed next.



Lycoming Valley Railroad

The Lycoming Valley Railroad, (LVRR) is one of numerous Class III shortline railroads serving the Commonwealth and is the only shortline railroad located in Lycoming County. This 38 mile long shoreline runs generally west between Avis (Clinton County) and Muncy, PA. The LVRR is part of the North Shore Railroad system with headquarters in Northumberland, PA.



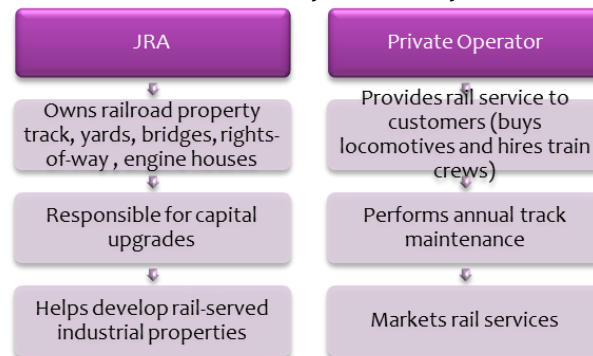
The system has trackage rights via the Norfolk Southern line allowing LVRR to connect to the west with the Nittany and Bald Eagle Railroad at Lock Haven and to the south with the Union County Industrial railroad at Milton, the North Shore Railroad at Northumberland and the Shamokin Valley Railroad at Sunbury.



The SEDA-COG Joint Rail Authority, (JRA) owns the Lycoming Valley trackage as part of an overall regional shortline rail system encompassing six rail lines with nearly 200 miles of track, land, rights-of way, engine houses and various bridges and other railroad related structures traversing through a nine county area consisting of Lycoming, Union, Northumberland, Montour,

Mifflin, Columbia, Clinton, Centre and Blair Counties. The entire JRA system provides rail freight service to approximately 85 shippers supporting over 10,000 good paying industrial jobs. The Lycoming Valley Railroad alone boasts 24 customers and in 2016 handled 9,067 carloads.

The JRA was created in 1983, under the PA Municipal Authorities Act of 1945 with each member County Board of Commissioners appointing two representatives to serve on the 16 member JRA Board. It should be noted that most of the rail-served companies are dependent on quality rail service offered by JRA and if such service were unavailable it is likely that many firms would close their doors or relocate to other areas having a substantial negative impact on the regional economy. In fact, the JRA and North Shore Railroad contract owner / operator arrangement has become widely recognized as a model for successful public-private rail partnerships on both the state-wide and national levels. The current operating agreement expired on June 30, 2017



and a time extension was granted by the JRA. Under this agreement, the JRA provides the North Shore Railroad with the exclusive right to use the railroad facilities owned by JRA in exchange for an operating fee based on 10% of gross freight revenue, 15% of Norfolk Southern track usage rights and 25% of car storage paid to JRA by North Shore Railroad. The operator is responsible for all equipment and facilities necessary to provide safe and adequate rail service. [The JRA issued a Request for Proposals (RFP) in May 2014, five railroads responded. Two proposers, Carload Express and Susquehanna Union Railroad Corporation (North Shore Railroad group), remain. The process is contested and as of October 2017, the matter is before the Pennsylvania Supreme Court.]

In 2012, the JRA completed a Five Year Strategic Plan which provides an excellent asset management tool and working strategy for future delivery of rail freight services to address the growing rail service needs of companies within their large geographic service area. The summary of the JRA strategic plan is illustrated below.

SEDA-COG JRA Strategic Plan Summary

Vision: To provide Central Pennsylvania with a world-class railroad enterprise that affords its customers and partners with the most reliable, efficient, and safest short line system.

Mission: To preserve and foster rail service in Central Pennsylvania and to further economic development through the retention, improvement, and expansion of the infrastructure and the rail service it supports.

Core Values: • Excellence • Stewardship • Safety • Integrity • Leadership	Core Functions: • Rail System Preservation and Improvement • Economic Development • Collaboration	Guiding Principles: • Plan and implement regional rail system projects with member county needs, private shipper needs, Rail Service Operator and other stakeholder interests in balance • Conduct open public JRA Board meetings with a public forum agenda item at every meeting • Adhere to state Right-to-Know Laws • Exercise ethical procurement standards and procedures that go beyond that required by the Commonwealth • Commit to a professional Code of Conduct and Ethics Policy for Board Members, Staff and Operator • Maintain a culture of cooperative problem-solving and partnership with our local governments, utilities, shippers, economic development agencies and property owners
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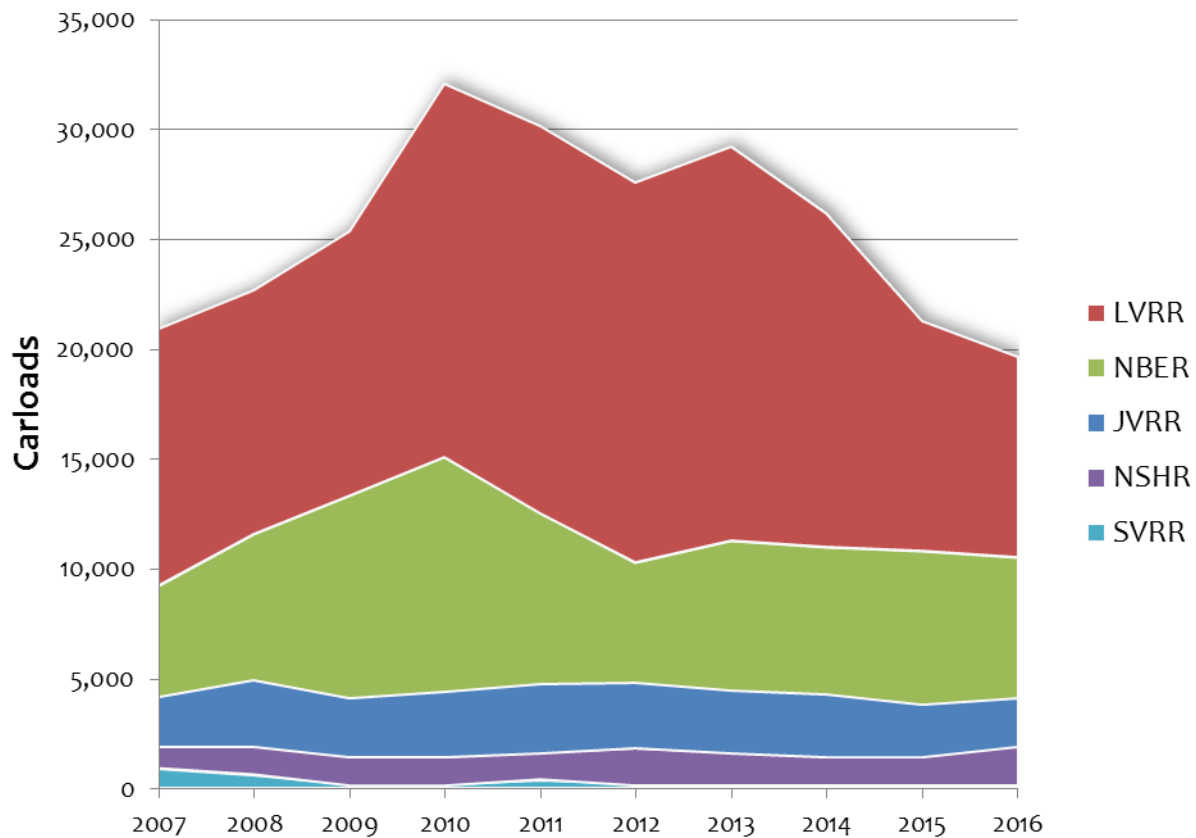
Railcar Traffic Trends

Since 2007, the SEDA-COG shortline rail system had an overall 4% decrease in carload traffic with the Lycoming Valley Railroad experiencing the largest numerical carload decrease at 2,648 carloads. As of 2016, LVRR handled 9,067 carloads accounting for 46% of total traffic among the five shortline railroads. Much of these increases are due to Marcellus shale gas drilling activity associated with shipments of bituminous stone, sand, pipe and other commodities. The chart below shows carload trends among the five railroads from 2006-2011. Clearly, the LVRR is the backbone of the regional shortline system. Rail traffic related to Marcellus shale gas declined precipitously starting in early 2015. By 2016, Marcellus traffic had fallen to less than 5% of its peak in 2013. In 2017, the LVRR has begun to see a solid recovery of non-Marcellus traffic. In 2018, the gas business may come back in limited amounts but no one in the industry expects to see the traffic levels of 2013, or anywhere close.

SEDA-COG JRA System-wide Carload Trends 2007-2016

Operator	Year										Change	
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	#	%
LVRR	11,715	11,048	12,042	16,986	17,569	17,307	17,938	15,176	10,470	9,067	-2,648	-15%
NBER	5,019	6,609	9,130	10,614	7,751	5,432	6,758	6,684	6,962	6,378	1,359	18%
JVRR	2,282	3,022	2,606	3,018	3,104	2,978	2,879	2,782	2,226	2,217	-65	-2%
NSHR	1,030	1,334	1,354	1,226	1,301	1,647	1,485	1,419	1,480	1,764	734	56%
SVRR	885	617	203	206	370	216	150	120	132	175	-710	-192%
TOTALS	20,931	22,630	25,335	32,050	30,095	27,580	29,210	26,181	21,270	19,601	-1,330	-4%

Source: SEDA-GOG JRA



As of 2017, there were 24 rail freight customers in Lycoming County utilizing LVRR services supporting 1,600 well-paying industrial jobs which is the largest number among the nine counties served by the JRA rail system.

JRA Rail System Economic Development Activity By County

County	JRA Mileage Owned/Leased	No. of Rail Freight Customers	Estimated No. of Customer Jobs	Rail Traffic			
				2008	2009	2010	2011
Blair	9.5	4	410	235	325	440	461
Centre	55	7	650	4,918	7,231	8,542	5,662
Clinton	13	12	1,010	3,230	3,275	4,168	4,816
Columbia	20	10	1,455	1,298	1,346	1,226	1,301
Lycoming	35	31	1,600	9,274	10,340	14,450	14,381
Mifflin	13	10	1,147	3,022	2,606	3,018	3,104
Montour	8.5	0	0	0	0	0	0
Northumberland	36	5	275	653	212	206	370
Union	4	0	0	0	0	0	0
Totals	194	79	6,547	22,630	25,335	32,050	30,095

Source: SEDA-COG JRA Strategic Plan

construction to Reach Road Terminal and Palmer Industrial Track and the afore-mentioned Loyalsock Creek railroad bridge replacement. Total JRA capital investments exceed \$43 million, (including TIGER 2) since 2004.

Rail/Highway Grade Crossings

The PA Public Utility Commission, (PUC) is the regulatory body to approve any proposed alterations to railroad/highway grade crossings. The JRA and their operator have collectively upgraded over 53 rail-highway grade crossings system-wide since 1995. The JRA has also participated in Operation Lifesaver, which is a nationwide, nonprofit public information program dedicated to eliminating collisions, injuries and fatalities at rail/highway grade crossings and on railroad rights-of-way. In fact the JRA was selected as one of only three nationwide demonstrations for the FRA's Pilot Emergency Notification System, (ENS) Rail-Highway Grade Crossings. Since 1997, there have been 6 reportable crashes involving a train in Lycoming County, 2 of which were fatal.

Rail Passenger Excursions

Although there are no scheduled commuter rail passenger services available in Lycoming County, the SEDA-COG JRA does successfully offer special rail excursions to the general public in cooperation with sponsoring area tourist promotion agencies, such as the Williamsport- Lycoming County Visitors Bureau. The JRA establishes a set of operational guidelines governing the sponsor's advertising materials, print content on tickets and control of ticket sales in relation to seating capacity in cooperation with the sponsor and the rail operator. In 2017, there were 14 passenger excursion trips made in Lycoming County which represented 25% of all JRA excursions system-wide and the most offered within any county in the JRA service area. These excursions have proven very popular and have good public attendance.



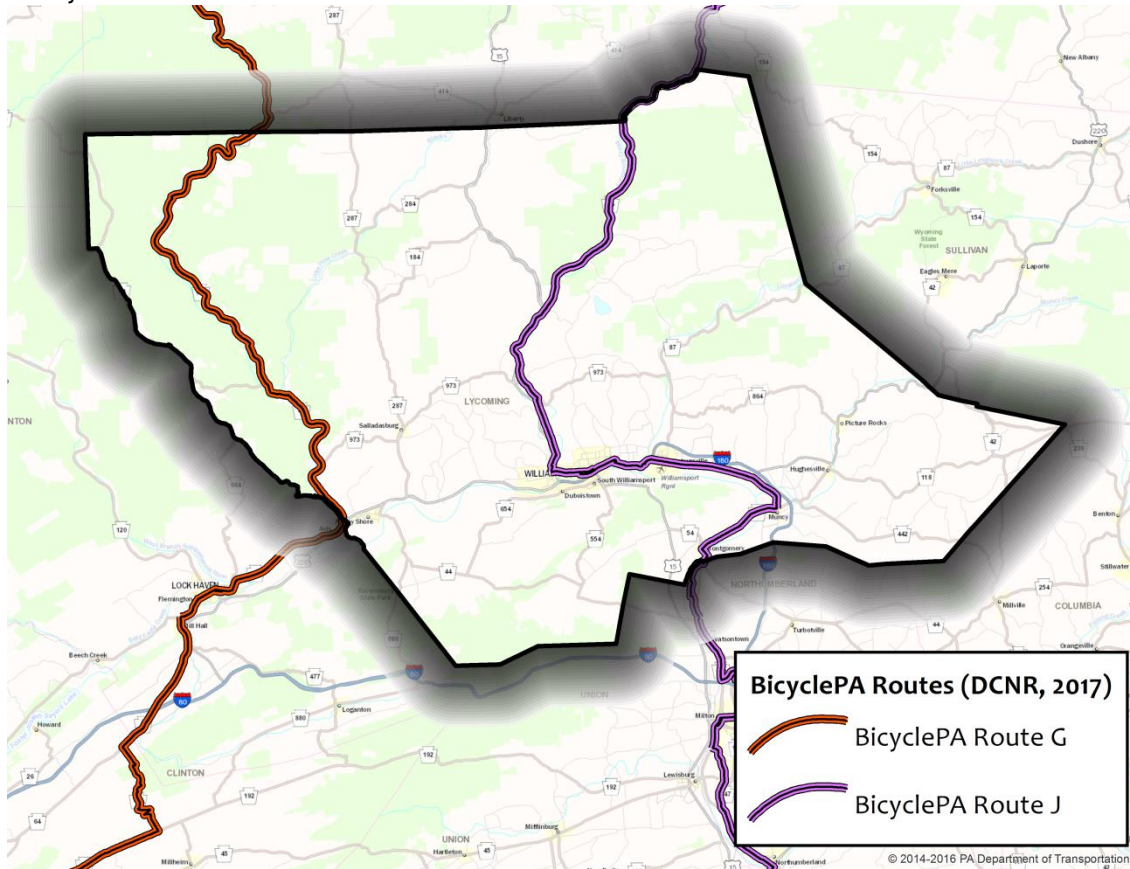
Active Transportation

Lycoming County has an outstanding system of multiuse urban and rural trails that are both regionally connected and provide access to key local recreational resources. There are plans underway to further expand upon this network, focused especially on completing "gaps" in the network. In addition, pedestrian facility enhancements have also been accomplished within many downtown areas throughout the county to improve safety and accessibility with more initiatives in the planning stages. This section of the plan describes existing major bicycle and pedestrian facilities and details efforts to expand the network in an effort to promote public safety, accessibility, healthy lifestyles, tourism and overall quality of life.

Bicycle PA Routes

PennDOT in consultation with a statewide Bicycle/Pedestrian Advisory Committee has placed signage on nine Bicycle PA Routes throughout the Commonwealth. These routes were identified by experienced bicyclists to provide the public with information who wish to traverse the state with a guide to some of the Commonwealth's highways and rail trails. Despite this effort, very few of these

routes were provided with bike lanes or other facilities designed for bicyclists and therefore have little utility for most users.

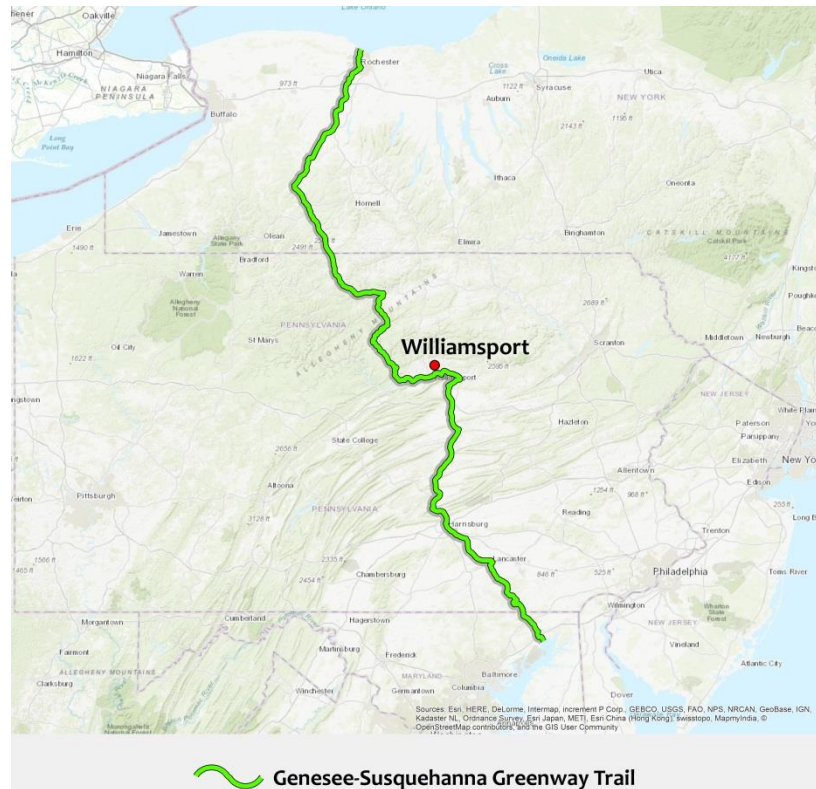


Multiuse Trails

The primary function of multiuse trails is to provide for safe, comfortable, and convenient non-motorized mobility between communities. Urban multiuse trails are usually paved and rural multiuse trails are usually compacted fine gravel. All multiuse trails also accommodate recreational uses along with transportation use which makes them a vital resource for communities. Lycoming County has several extensive multiuse trails already in place as well as plans to connect, extend, and improve access to these trails.

Regional multiuse trail strategy

Lycoming County is working closely with the Genesee River Wilds organization, the Susquehanna Greenway Partnership, the Middle Susquehanna Bicycle and Pedestrian Advisory Committee, SEDA-COG, and other organizations to advance a major trail system linking Rochester NY with the Chesapeake Bay in Maryland with Williamsport being roughly the midpoint. The Susquehanna-Genesee Greenway Trail System will eventually connect to the Pine Creek Rail Trail and the Susquehanna River Walk. Major multiuse trail projects in Lycoming County are primarily evaluated by how they provide linkages or access to this overall envisioned trail system.



Existing Multiuse Trails

Pine Creek Rail Trail



This is the longest and most significant regional trail found in Lycoming County and the entire 12 county [PA Wilds Region](#). The 62 mile long rail trail traverses Lycoming and Union Counties between Jersey Shore and Wellsboro, Jct. offering outstanding scenic views of the Pine Creek Valley. USA Today proclaimed this trail as one of the 10 best trails in the world. The trail surface is 12 foot wide with a compacted limestone fines surface and is relatively flat grade not exceeding a 2% slope as this corridor was once part of the former Corning Secondary Rail Line owned and operated by Conrail until it was railbanked in 1990. PA DCNR now holds the lease for the entire trail property and maintains the trail. There are only non-motorized trail uses with no nighttime use or lighting. There are 12 public parking lots and 9 comfort stations along the trail. Given the significance of the trail, the PA General Assembly created a Pine Creek Rail Trail Advisory Committee involving state, county and local officials to oversee the 15 year project development process and to further develop and ensure proper trail maintenance and operations. The last section of the trail was opened for public use in 2006. The trail system with parking cost \$9 million to construct using PA Growing Greener, PA Oil and Gas Key 93 and Transportation Enhancement funds. Annual trail maintenance costs are approximately \$500,000 per year. A trail location map is provided below.



In 2012, the Borough of Jersey Shore completed construction of a 1.5 mile extension of the Pine Creek Rail Trail which connected the main Pine Creek Trail southern trail head along Railroad Street with the Jersey Shore Town Center and residential areas to provide a safer connection. This paved rail with trail parallels the Lycoming Valley Railroad with protected fencing and ties into Seminary Street in the Borough. PennDOT, PA DCNR and First Communities Foundation of PA provided funding for this approximately \$800,000 project which won a 10,000 Friends of PA Transportation Excellence Award. Jersey Shore Borough is designated by the Susquehanna Greenway Partnership as a “River Town” and the trail improvement is a key component.



Pine Creek Trail Connector



Trail Dedication Ceremony

Lycoming Creek Bikeway

Another significant trail facility is the Lycoming Creek Bikeway constructed in 1991. This 5 mile long paved bikeway is owned and maintained by five different municipalities that the trail system traverses between Williamsport and Hepburnville. These municipalities are Hepburn Township, Lycoming Township, Loyalsock Township, Old Lycoming Township and the City of Williamsport. The bikeway connects to numerous public recreation facilities and attractions such as the Old Lycoming Township Recreation Park, Heshbon Park and historic Bowman Field Minor League Baseball Park. Portions of the bikeway are shared road facilities with the remaining sections built as separate use trail.



Susquehanna River Walk

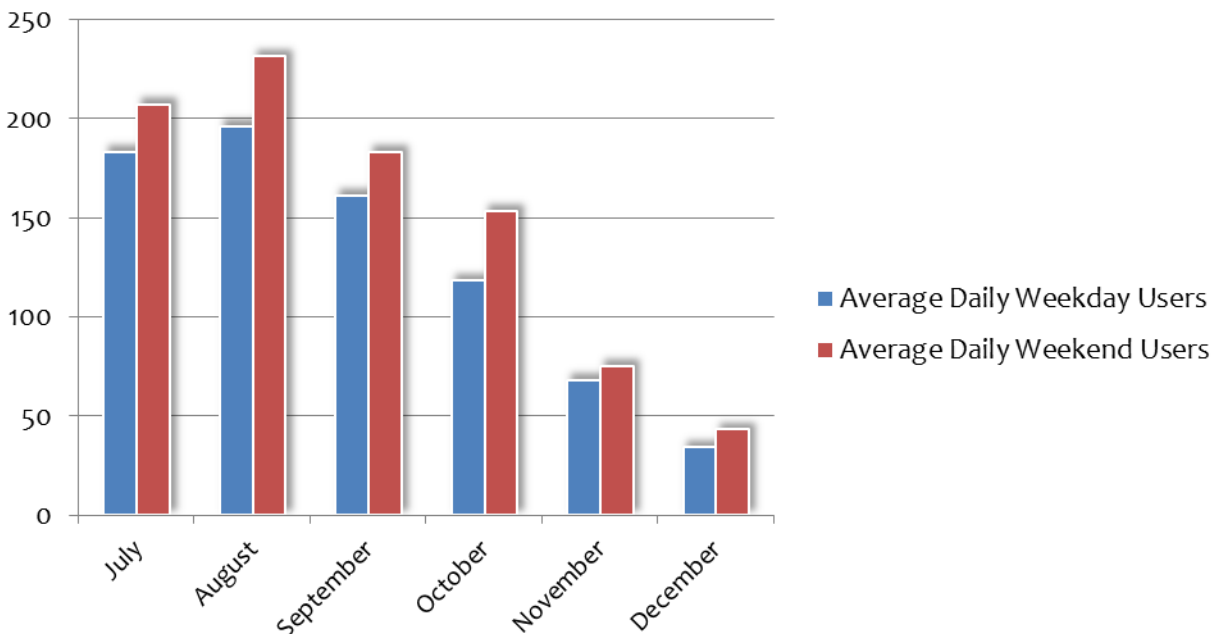
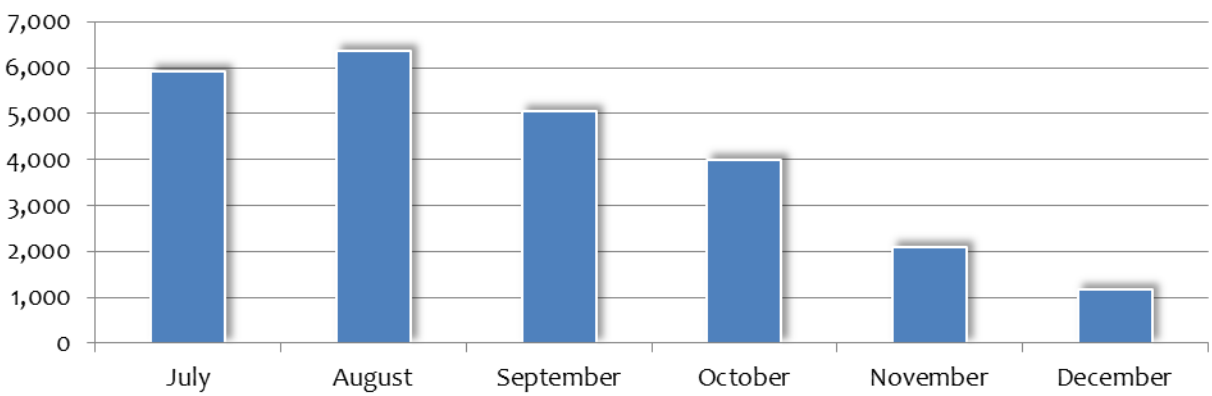
The Susquehanna River Walk is a 6 mile paved bikeway and walkway situated on top of the Williamsport Area Levee System located in the City of Williamsport, Borough of South Williamsport and Loyalsock Township. This project was a key component of the Downtown Williamsport Revitalization Vision developed by the Lead Partners involving Lycoming County, City of Williamsport, Williamsport-Lycoming Chamber of Commerce, Our Towns 2010 and other organizations with initial planning begun in 2000 in conjunction with PennDOT's Market Street Bridge Replacement Project. Public outreach surveys at the time demonstrated strong support for the project as 97% of respondents wanted a reconnection between the downtown and the river. The County

constructed 4.5 miles of the Riverwalk that opened for public use in 2010 while South Williamsport Borough completed the remaining 1.5 miles between the South Williamsport Recreation Complex and Market Street Bridge in 2011 which is under Borough ownership and maintenance responsibility. The \$3 million project was financed using Federal transportation earmark appropriations, Transportation Enhancement Funds and PA DCNR funding with a small County match. The county has entered into a Maintenance Agreement with the City and South Williamsport Borough to provide

basic River Walk maintenance on the County-owned portion. The Riverwalk is also a venue for public art displays and educational kiosks depicting the region's heritage associated with lumbering has been financed and installed through the Lumber Heritage Region. Currently, the Riverwalk receives heavy public use in non-winter months as winter maintenance is not provided. The River Walk connects to the Loyalsock and Montoursville Bikeways providing a continuous trail link between Maynard Street Bridge in the city and PA Rt. 87 park-n-ride near Walmart in Montoursville.

In 2017, the Rails to Trails Conservancy placed a counter on the River Walk and has shared counter statistics with the Lycoming County Planning Department. The second half of 2017 saw 24,500 total counted users on the River Walk with peak daily average use in August of 205 counted users per day.

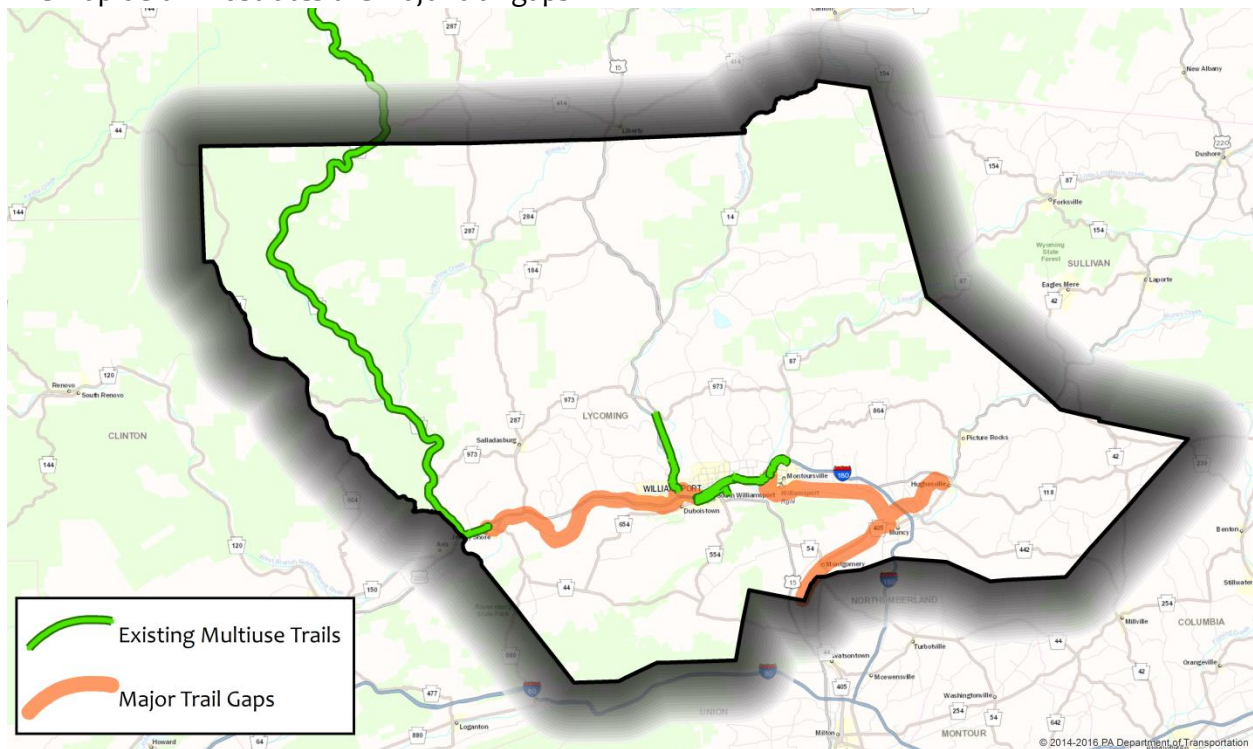
Total Monthly River Walk Users



Multiuse Trail Gaps

The existing major multiuse trails in Lycoming County are missing major linkages to allow full non-motorized travel through the urban core of the county. In 2009, the Lycoming County Planning Commission used consultant Larson Design Group to undertake a feasibility study of providing trail connections between Jersey Shore and Williamsport to connect the Pine Creek Trail with the River Walk as part of the overall Genesee-Susquehanna Greenway Trail System and to further connect the River Walk to communities east of Williamsport including Muncy and Montgomery as part of the Susquehanna Greenway Partnerships vision to extend the trail system throughout the remainder of the Susquehanna River Corridor to the Chesapeake Bay in Maryland. The feasibility study showed that the trail was then only feasible to construct as a combination shared road and separate use trail system. Considering different potential alignments and multiple potential phases, phases given the \$23 million estimated cost to complete the remaining trail sections in Lycoming County.

The map below illustrates the major trail gaps



The Pennsylvania Department of Conservation and Natural Resources recognized the trail gap between the Lycoming Creek Bikeway and the Susquehanna River Walk in the city of Williamsport as one of the [top 10 trail gaps](#) as outlined in the [2014-2019 Statewide Comprehensive Outdoor Recreation Plan](#). In 2016, the Lycoming County Department of Planning and Community Development applied for and received a DCNR grant for design and engineering of a Susquehanna River Walk extension that will be a 2.4-mile, 10-ft wide, paved multi-purpose trail between the existing 4.5-mile River Walk at Maynard Street and the 20-acre riverfront Susquehanna State Park. The River Walk extension will also link directly to the Lycoming Creek Bikeway and provide for multiple new access points to the existing River Walk.

Multiuse Trail Access Improvements

Miller's Run

There is a multiphase project underway to establish a greenway and trail along Millers Run in Loyalsock Township to connect the Susquehanna River Walk with the township's schools and recreation center. The Millers Run Greenway will be a multi-use trail that connects the Susquehanna River Walk to multiple recreation assets in Loyalsock Township, including Bruce Henry Park, the Loyalsock Community Center, James Short Park, and the township's community swimming pool. The trail would be multi-functional and utilized for both transportation and recreational purposes. This trail would serve multiple users, including pedestrians, joggers, bicyclists, and others. Connectivity with residential developments, schools, recreation areas, and business districts also represent important functionalities of this trail.

Funding has been secured for two sections of Phase 1 through PennDOT's TAP Grant. This includes the connection from the Loyalsock Community Center to James Short Park/Pool Complex and the connection from Bruce Henry Park to Northway Road. Funding for Phase 2 was applied for in 2017.

Basin Street Access

Currently, there are limited access points to the Susquehanna River Walk from the downtown of the city of Williamsport. The existing access points involve navigating either the busy US-15/I-180/Market St or Maynard St/I-180 interchanges or exiting I-180 East at the Hepburn St. exit. Therefore, a two phased project is being developed to add a new access ramp at the southern terminus of Basin Street with Phase 1 being funded by a \$ 180,000 PA DCED Greenway and Trails Program Grant .

Newberry River Walk Connection

When the extension to the Susquehanna River Walk system is completed, there will be an opportunity to build a spur from the main River Walk trail into the Williamsport neighborhood of Newberry. An existing rail right-of-way exists that would make this extension feasible. This spur trail would provide a direct access



point to the River Walk system from a major commercial and residential area of the city.

South Reach Road River Walk Connection

The Susquehanna River Walk extension project is currently planned on extending to the eastern boundary of Susquehanna State Park. A further extension of the trail through the park and then to South Reach Road would provide another necessary link in the future connection of Williamsport west to the Pine Creek Rail Trail in Jersey Shore while also opening up a new access point to and from the River Walk system from the major employment center of the Reach Road industrial area.

Downtown Streetscape Improvements

While multiuse trails primarily provide non-motorized mobility between communities, downtown areas can implement various streetscape improvements to facilitate non-motorized travelers within the community. These improvements are typically grouped together under the umbrella of “Complete Streets.” According to the National Complete Streets Coalition, the definition of a complete street is a street designed and operated to enable safe access for all users.” This means that all modes of transportation should be accommodated in a way that is safe and convenient for all modes. Both PennDOT and FHWA have produced guidance documents for implementation of complete streets within communities.

Montoursville Streetscape

A several block area of downtown Montoursville along Broad Street also received major streetscape improvements involving new sidewalks, curbing, street trees, lighting, and pedestrian crossing enhancements including “Yield to Pedestrians” signage.



Hughesville Streetscape

A several block area of downtown Hughesville along PA 405 (Main Street) was the focus of a streetscape project involving new sidewalk installation, curbing, street trees and lighting.

City of Williamsport

As part of a comprehensive streetscape improvement program tied to the downtown revitalization vision, the City of Williamsport completed a multi-block area in the core of the Central Business

District including new sidewalks, curbing, decorative historic period lighting, street trees and brick cross-walks. Streetscape improvements were recently completed connecting the new Church Street Transportation Center area with the William Street Development Area with landscaping, brick pavers, lighting, hardscaping, sidewalk improvements and other site amenities. Also incorporated were informational kiosks and related signage. Further streetscape improvements have tied into the completion of the RVT Trade and Transit II development linking into the public square.



Pathway to Health

In support of the \$250 million expansion of the Susquehanna Health Regional Medical Center, two phases of a four phase streetscape and traffic improvement project have been completed along Walnut Street to accommodate the new gateway to the hospital. Streetscape again included new sidewalks, street trees, curbing, lighting and crosswalks with traffic signal upgrades to enhance vehicular and pedestrian flows and reduce emergency response times between the hospital and Interstate 180. Additional streetscape improvement are planned along Campbell, Third and Maynard Streets which will eventually connect to the Susquehanna Riverwalk and Penn College of Technology Campus existing streetscape improvements along Maynard Street. The Pathway to Health project also recently won a 10,000 Friends of PA Transportation Excellence Award. Phase 3 is under construction and Phase 4 is in design.

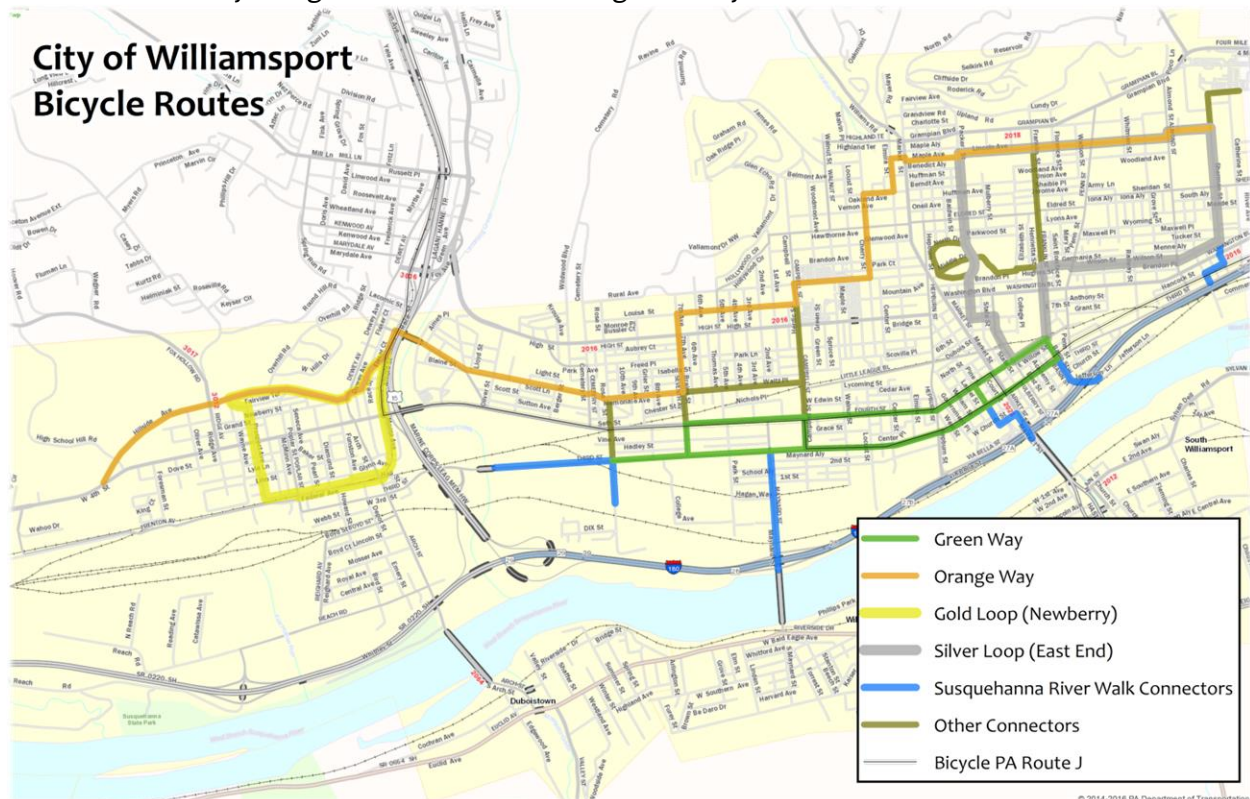


Basin/Willow Street

Lycoming College and the city of Williamsport are currently undertaking a major streetscape improvement of Basin Street. Basin Street is directly accessible from I-180 and would serve as the new gateway corridor to the college. These streetscape improvements would also link to the planned Basin St. River Walk access ramp and to an additional conversion of Willow Street to a multiuse “green alley” with new lighting, signage, and permeable paving. This project will provide important walkable connections between Lycoming College, the Williamsport Central Business District, and the Susquehanna River Walk while also improving motor vehicle access to the eastern end of the central business district and the college from I-180.

Bicycle Pedestrian Advisory Committee

In 2015, the City of Williamsport formed a Bicycle/Pedestrian Advisory Committee to explore how the city could apply for “Bicycle Friendly Community” status from the League of American Bicyclists. This effort resulted in the creation and adoption by city council of an official map of routes recommended for priority in any future efforts to expand bicycle infrastructure in the city. At the same time, council adopted a suite of ordinance amendments recommended by the committee to make city planning, zoning, and streets ordinances align with Complete Streets principals. For example, “streets” are now defined in city ordinances as needing to be “designed, built, and operated to enable safe access for all users, in that pedestrians, bicyclists, and public transportation users of all ages and abilities are able to move safely along and across the street right of way.”



Hughesville/Muncy Walkable Communities Plans

In 2010, the Lycoming County Planning Commission participated in the development of a SEDA-COG [Walkable Communities Plan](#) for the communities of Hughesville and Muncy Boroughs. A Master Plan concept with recommended bicycle and pedestrian enhancements was formulated with extensive community involvement.

Jersey Shore Walkability Study and Active Transportation Plan

In 2017, the Borough of Jersey Shore successfully applied for grants to conduct a series of walkability audits and draft a Borough Active Transportation Plan. WATS MPO staff have been included in the committee planning process of the project. The intent is to identify corridors within the borough in need of complete streets improvements, to increase the safety of non-motorized travelers, and to enhance access to the Pine Creek Rail Trail which enters the borough.

Other Modes

Amish

Lycoming County has a sizeable Amish population centered in the municipalities of Limestone Township, Washington Township and Brady Township. During the multimunicipal comprehensive planning efforts in this part of the county through 2015 and 2016, a consensus was reached that an improved forum is needed for reaching out to the Amish community on various topics. The primary concern identified during this discussion was road safety issues that arise between motorized vehicles and Amish buggies along with the need to better communicate with the Amish community to identify and implement safety improvements. A recent vehicle collision with a horse drawn buggy in Washington Township has illuminated this concern. Additional safety issues were also discussed, including pedestrian and bicycle safety concerns and the need for road widening and pedestrian and bicycle lanes – where realistic solutions exist. Of particular concern are circumstances in which school-aged Amish children travel to school along local roadways, which lack the enhanced pedestrian facilities of a traditional urban setting. Opportunities for road design measures to address some of these concerns were discussed such as wider road shoulders that may make corridors with high traffic volumes safer for all users.

To address these concerns, there will be efforts locally to establish an improved communication framework between local government and the Amish community. This process will include outreach to current leaders within the Amish community to discuss appropriate protocols such as permissible or desirable options, locations, and frequency of communication. This project will also include building a deeper understanding of the Amish community, including organizational structure, values and traditions, concerns of the community, and opportunities for improvement. Initial outreach will be made to the church leaders of the Amish community to begin establishing improved communication methods. This process will lead to the creation of a series of communication methods that are acceptable by both the Amish community and the local governments. Once established, this communication process will be used to improve local decision making, respect cultural differences, and identify transportation safety improvements among other community projects.

School Districts

School districts maintain and operate one of the largest transportation systems in Lycoming County, yet there has been little coordinated effort to include school districts in the transportation planning process other than through the Safe Routes to School Program. Therefore, little is known at the MPO level of what the general needs of school districts might be regarding the transportation system. From Pennsylvania Department of Education data on school district finances, it is apparent that the 11 school districts located wholly or partially within Lycoming County have spent an average of \$10.8 million each year for the past 10 years on student transportation services. For reference, this is roughly double RVT's total annual operating budget. There has been a 25% increase in student transportation costs for Lycoming County school districts from 2006 to 2016. In Lycoming County, school districts have been invited to participate in comprehensive planning efforts and carrying forward also in PennDOT Connects meetings.

Williamsport Area Transportation Study Metropolitan Planning Organization

LONG RANGE TRANSPORTATION PLAN
2018 - 2038

CHAPTER 4 – STRATEGIC DIRECTION
AND IMPLEMENTATION

Strategic Direction

Drawing upon the information in the preceding two chapters, a clear path forward emerges for the Williamsport Area Transportation Study Metropolitan Planning Organization over the period from 2018 to 2038. First, the following Federal Government planning goals will be adhered to:

1. To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
2. To maintain the highway infrastructure asset system in a state of good repair
3. To achieve a significant reduction in congestion on the National Highway System
4. To improve the efficiency of the surface transportation system
5. To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
6. To enhance the performance of the transportation system while protecting and enhancing the natural environment
7. To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

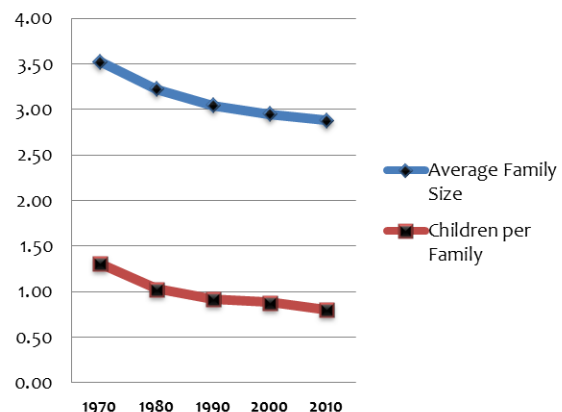
Second, the following Commonwealth of Pennsylvania planning goals will be pursued:

1. System preservation by using increasingly good data about the transportation systems in Pennsylvania to develop asset management strategies to maintain the current transportation system at a high level of quality
2. Improvement of safety statewide for all modes and all users
3. To expand and improve personal and freight mobility
4. Emphasize stewardship by increasing efficiency and streamlining processes

Three common transportation needs emerged from Lycoming County comprehensive planning:

1. A need to better accommodate non-motorized modes of transportation
2. A need to address the maintenance needs of transportation infrastructure, in particular structurally deficient bridges, and ensure a resilient and robust transportation system
3. A need to better forecast how future economic development and future transportation infrastructure will influence and stimulate each other

Analysis of current economic and demographic trends in Lycoming County reveals that we are losing population overall, especially young people and professionals. We have smaller families with fewer children. With fewer young people, we are losing people who would potentially be developing future small businesses and providing services necessary for a high quality of life. Historically, Lycoming County has over-relied on single industries to drive the local economy: lumber, manufacturing, natural gas. We are losing manufacturing jobs, the largest private



employment sector in the county. Gas development is very cyclical. If we do nothing, we will see a major decline in population and a complete loss of those demographics that are most likely to contribute to economic diversity and sustainability. Therefore, we need a strategy that simultaneously addresses the need for a transportation system that supports a diversified economic base and the need for a transportation system that appeals to the retention and attraction of productive citizenry. Our transportation system will support a diversified economic base by prioritizing both projects that assist freight movement and projects that enhance the mobility of visitors to our arts, culture, and recreation resources.

Analysis of the multimodal system inventory of Lycoming County with an eye to deficiencies reveals a system that has no major current deficiencies in condition or capacity. Our state-owned highway and bridge system is in better repair than the statewide system, and plans are in place to repair the portions of the system in substandard condition. While condition of locally owned bridges is known through the county local bridge inspection program, data on locally owned roadways is sparse. However, in light of the continued shrinking population in Lycoming County, highway and bridge system maintenance will become increasingly more expensive to maintain on a per capita basis. Therefore, options to rightsize the highway and bridge system should be pursued to reduce future maintenance cost burdens.

Weaving together these threads gives us four main focus areas for future transportation projects in Lycoming County:

1. Economic development in Lycoming County is dependent on both freight movement and the mobility of visitors to our arts, culture, and recreation resources. Therefore, **projects that maintain the ability to move freight or travel to Lycoming County should be a priority.**
2. Our multimodal transportation system is in excellent condition. There are no glaring deficiencies in highways, bridges, transit, rail, or air service. There are no needs for additional capacity. Therefore, **maintenance and safety projects take precedence.**
3. We need more multiuse trail connections between communities as well as improved access to existing facilities. We need more and improved bicycle and pedestrian facilities in Williamsport and the boroughs to better serve our population that will age in place, to appeal to young people, to assist low income populations, to support economically vibrant downtowns, and to promote the retention and attraction of population. Therefore, **streetscape, walkability, and safety projects located in urbanized areas should be a priority.**
4. As rural populations decrease, we need to consider options that decrease the infrastructure maintenance cost burden on rural municipalities while focusing investment on the infrastructure of the parts of the county where delivery of services is most efficient and cost effective. Therefore, **projects that identify and remove costly functionally redundant infrastructure or improve infrastructure in already densely developed areas should be a priority.**

WATS Long Range Plan Implementation Strategies

Long Range Transportation Plans should include elements related to both plan implementation and monitoring. This ensures that the goals and objectives and issues identified throughout the plan can advance from theoretical concepts to action by the WATS MPO and other appropriate parties as well as include techniques that can be used to monitor progress in this regard or to re-evaluate the plan in light of changing circumstances. The implementation strategies for this plan are summarized below:

- Review federal rulemaking regarding development of transportation system performance measures and incorporate appropriate system performance measures into WATS Long Range Planning Process.
- Actively implement the objectives of the PA On Track State-wide Long Range Transportation Plan, the Pennsylvania Strategic Highway Safety Plan, and the Pennsylvania Comprehensive Freight Movement Plan.
- Ensure consistency of WATS Long Range Plan Goals, Objectives and Project Selection Criteria when identifying, prioritizing and programming all Lycoming County Transportation Improvement projects.
- Maintain updated socio-economic and demographic information as part of WATS Transportation Plan Updates.
- Develop and maintain transportation databases as needed to establish and track performance measures.
- Monitor and update Federal Functional Classification System and Enhanced National Highway System Maps as appropriate.
- Support transportation projects that reduce the number of miles of fair or poor pavements in Lycoming County.
- Support transportation projects that reduce the number of structurally deficient and impending deficiency bridges in Lycoming County
- Support strategically targeted transportation safety funding for projects that address high crash locations and improve safety. Consider low cost countermeasures to address certain crash locations as appropriate given limited safety funding availability. Utilize PennDOT Highway Safety Reports to identify crash locations and evaluate appropriate countermeasures for implementation.
- Identify and deploy Intelligent Transportation Systems, (ITS) technologies consistent with PennDOT District 3-o Regional Operations Plan, (ROP) and update ROP as needed.
- Incorporate TSMO strategies as part of overall WATS Long Range Planning Process to reduce congestion
- Support evaluation of transit service extensions to growth areas and regionally (beyond Lycoming County) where providing such service is cost effective, meets mobility needs, and promotes economic activity.
- Support continued conversion of RVT bus fleet to compressed natural gas to provide anticipated savings in RVT operating costs and utilize an abundant local energy resource.
- Support completion of major transit capital improvement projects.
- Continue to work closely with SEDA-COG to update the Joint Coordinated Human Services Public Transportation Plan to ensure regional connectivity and cooperation in assessing regional public transit needs and opportunities and to implement the SEDA-COG Regional Public Transit Needs Assessment recommendations prepared by Gannett Fleming.
- Support additional direct commercial air service opportunities.
- Support efforts to maintain federal subsidies to continue the operation of the Williamsport Air Traffic Control Tower.
- Work with the Airport Authority to ensure full municipal compliance with PA Act 164, Airport Hazard Zoning Law.
- Support the completion of the SEDA-COG Joint Rail Authority adopted Five Year Strategic Plan capital improvement projects.

- Support preservation, maintenance and capacity expansion of rail freight infrastructure.
- Work with the Joint Rail Authority to ensure multi-modal connectivity to current rail served industry and future development served by rail.
- Continue to work with the SEDA-COG Joint Rail Authority and Norfolk Southern to improve highway / rail grade crossing safety.
- Support continuation of rail passenger excursions coordinated between the Joint Rail Authority and Lycoming County Visitors Bureau.
- Support the completion of the Genesee-Susquehanna Greenway Trail.



- Ensure adherence to WATS Programmatic Commitments for environmental review and mitigation activities associated with WATS projects and complete Linking Planning and NEPA screening forms for WATS proposed projects PRIOR to inclusion of projects on the WATS Long Range Plan and TIP.

- Update WATS Public Participation Plan to ensure WATS remains in full compliance with federal and state public participation

requirements and maximizes opportunities to ensure meaningful public involvement in the WATS transportation planning process, especially in regard to addressing environmental justice benefits and burdens and Title VI requirements.

- Ensure that WATS Long Range Plan projects remain within fiscal constraint targets established through PennDOT issued Financial Guidance.
- Ensure WATS Long Range Plan is officially updated no later than every five years in accordance with federal requirements with the next official plan update scheduled by December 31, 2018 WATS MPO adoption. More frequent plan updates can be considered as needed to properly respond to emerging federal and state planning requirements and/or local issues and priorities as deemed necessary by WATS.
- Perform study on likely CSVT impacts on traffic flows and land use
- Supports extension of I-180 from its current terminus in Williamsport north to the New York state line as I-180
- Study (and adjust if necessary) the balance of mobility and access on our downtown road systems, such as advancing transportation improvements needed to support the Old City Revitalization Initiative.
- Continue current preventative maintenance strategies regarding bridges and pavement
- Identify and promote ways to increase transit usage, especially targeted to the 65 and older population

- Seek more inclusion and collaboration with municipal officials, school districts and other stakeholder organizations as part of the PennDOT Connects collaboration process on transportation planning issues and at early stages of project development.
- Advocate for more targeted enforcement of speeding and distracted driving laws
- Promote and support data driven transportation asset management by municipal governments
- Create a countywide database of sidewalks, trails, and paths so we are better able to effectively plan for walking and bicycling
- Create a countywide program of walkability audits
- **Support education about the benefits and responsibilities of walking and bicycling**
- In areas with high Amish population, include extra width shoulders on pavement projects and open a dialogue on other related transportation safety issues.
- Support grant applications for multiuse trail projects that connect communities
- Promote the creation of dedicated PennDOT funding for active transportation projects
- Work with municipalities to identify low volume, costly to maintain rural paved roads for conversion to gravel.
- Repair or replace all structurally deficient bridges through the TIP and through the Lycoming County Local Bridge Bundling program.
- Perform preventative maintenance on impending deficiency bridges.
- Identify low volume, minimally sufficient, functionally redundant bridges for removal prior to them becoming structurally deficient.
- Identify low volume rural roads for conversion to gravel
- Promote transit oriented development.
- Identify appropriate corridors throughout the county for complete streets improvements.
- Support implementation of high priority transportation projects contained in the Lycoming County Comprehensive Plan Update and six updated Multi-Municipal Comprehensive Plans.

Implementation Process

The WATS MPO has an outstanding record of delivering transportation projects within Lycoming County on time and within budget. Building upon this tradition, it is important that the future transportation plan contain realistic and achievable transportation projects that have well established needs vetted through the planning process while considering limited availability of current and future resources.



Delivering the Final Section of US 15 North of Williamsport

The remainder of the WATS Long Range Plan focuses on how this plan will be implemented. First, the WATS criteria for project evaluation and selection will be presented. Next, a financial analysis will be provided which identifies the types of federal, state, local and other funding sources along with anticipated funding levels that are reasonably expected to be available for transportation improvement projects undertaken during the 20 year plan horizon. All proposed transportation projects will be presented by transportation mode and funding source(s) for staged implementation. How WATS will seek public involvement in the project development process will be outlined. Further, the WATS methodology to incorporate environmental justice in implementation will be described. Finally, plan implementation strategies will be outlined to properly address key issues identified in the WATS transportation planning process for future action by appropriate parties.

Project Selection Criteria

Future transportation projects in Lycoming County will be described by one or more of the following statements.

The project...

- ...is a priority project from the Lycoming County Comprehensive Plan and/or Multi-Municipal Comprehensive Plan or addresses a transportation issue identified within those plans
- ...addresses one or more of the SAFETEA-LU/MAP-21/FAST Act Planning Objectives
- ...contributes substantially towards meeting an FHWA performance-based planning target
- ...addresses one or more of the PA On Track and Pennsylvania Comprehensive Freight Movement Plan planning objectives
- ...addresses one or more objectives of the Pennsylvania Strategic Highway Safety Plan
- ...maintains or enhances the ability to move freight or travel to Lycoming County
- ...is a streetscape, walkability, or safety project located in urbanized areas
- ...identifies and removes costly functionally redundant infrastructure or improves infrastructure in already densely developed areas
- ...pursues one or more of the implementation strategies of this Long Range Transportation Plan
- ...has been vetted through WATS transportation planning process, including sufficient opportunities for public and stakeholder involvement.
- ...has a project sponsor with committed required matching funds (TIP only)

...involves multi-modal integration components (such as transit, rail freight, air service) to improve transportation flow of people and goods movement.

...supports improved access for redevelopment of brownfield or infill development

...improves mobility to employment, health care, education and supports overall economic development and productivity

...addresses transportation security issues and needs or responds to major disasters consistent with the Pennsylvania and Lycoming County Hazard Mitigation Plans and Emergency Operations Plans.

...improves bicycle and pedestrian safety and access to recreation facilities, job centers, schools and promotes regional connectivity consistent with Lycoming County Recreation and Open Space Plan

...addresses ADA accessibility issues and needs

...improves and preserves highway pavement condition by reducing poor or fair IRI / OPI mileage maintaining roadways in a good state of repair, with priority focus on higher volume roadways. Life cycle pavement data will also be used in highway pavement asset manage

...incorporates new emerging technologies, such as ITS deployment or signal modernization to improve traffic incident management, emergency response, operational safety and system efficiency consistent with PennDOT District 3-0 Regional Operations Plan.

...incorporates TSMO strategies to decrease congestion

...attempts to avoid impact on sensitive environmental resources and, where avoidance is not possible, mitigation opportunities have been thoroughly explored

...helps to preserve Lycoming County's air quality attainment status

...promotes energy conservation.

...benefits environmental justice population areas.

...supports potential Scenic Byways designations.

...provides repair or preventative maintenance of existing infrastructure

...supports good state of repair of transit facilities and modernized fully accessible transit vehicle fleets.

...supports expansion of public transportation availability in designated growth areas and serves major land developments.



...encourages or incorporates alternative fuels such as Compressed Natural Gas and encourage use of locally available energy resources consistent with Lycoming County Energy Plan

...promotes increased transit ridership

...increases livability and improves quality of life

...fosters public-private partnerships

...improves rail/highway grade crossing safety

...reduces or mitigates stormwater impacts of surface transportation

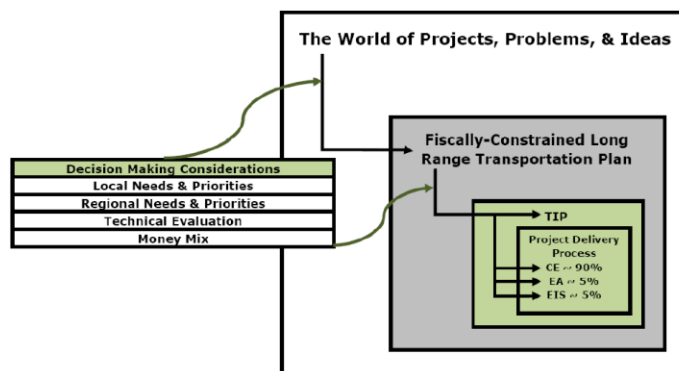
...considers context sensitive solutions to ensure compatibility with community character and right sizing of project to address the project defined purpose and need.

Since financial resources will never be enough to adequately address all identified transportation problems and needs, it is important to establish criteria which should be used to evaluate transportation needs and develop and prioritize solutions that address the needs considering limited available resources. There are four basic considerations incorporated into the decision-making process at the key prioritization points:

1. *Local Needs and Priorities*
2. *County-wide (or Regional) Needs and Priorities*
3. *Technical Evaluation*
4. *Money Mix*

Establishing a project selection process helps to provide consistency between the goals and policies implemented through plans and programs and the mix of projects and investments of the Transportation Improvement Program. It also allows for a collaborative effort including input from both the public and stakeholders. However, project evaluation and prioritization should not be overly prescriptive or inflexible in adapting to ever-changing circumstances.

As an example of how the WATS MPO has utilized the project selection criteria above, please consider the programming of the following projects which contribute towards meeting an FHWA performance-based planning target for safety collectively referred to as PM-1.



Source: PennDOT Developing Regional Long Range Plans

The Williamsport MPO FFY 2019-2022 TIP includes road safety improvement projects that are intended to improve the performance of the roadway system relative to the five federal safety performance measures. To ensure planned HSIP projects achieve a significant reduction of traffic fatalities and serious injuries on all public roads, the Williamsport MPO did the following for the development of the FFY 2019-2022 TIP:

- Coordinated with PennDOT District 3-0 traffic safety managers

- Consulted with municipal officials and emergency service responders
- Reviewed crash statistics, mapping, data driven safety analysis, and prior road safety audits
- Participated in PennDOT Connects Outreach Meetings

Based on this process, the following regional Williamsport MPO projects were included in the FFY 2019-2022 TIP to help achieve a significant reduction of traffic fatalities and serious injuries on all public roads:

Project	Improvement Focus
MPMS # 93016- US 220/PA 405 intersection	Intersection Safety Improvements
MPMS # 93732 US 220 (PA 287-West 4th St)	Corridor Safety Improvements/Access Controls
MPMS # 106182 Countywide Cable Guiderail	Upgrade Cable Guiderail at various locations
MPMS # 108942 I-180, SR 147, SR 220 Ramps	Install Wrong Way Signs
MPMS # 110769 Interstate Delineation	Interstate Safety Improvements
MPMS # 110769 Districtwide Cable Guiderail	Upgrade cable guiderail at various locations
MPMS # 110248 Reflective Pavement Markers	Replace reflective pavement markers on various State routes in Lycoming County
MPMS # 110249 Reflective Pavement Markers	Replace reflective pavement markers on various State routes in Lycoming County
MPMS # 110250 Reflective Pavement Markers	Replace reflective pavement markers on various State routes in Lycoming County
MPMS # 110890 Montgomery Corridor RRX	Install LED lighting at 8 rail/highway crossings

WATS Criteria in Selecting & Prioritizing Transportation Projects for Funding Consideration on Long Range Transportation Plan/Transportation Improvement Program (TIP)

It should be noted that these criteria are considered by WATS in selecting and prioritizing highway, bridge, transit, safety, bikeway and pedestrian and highway/rail grade crossing projects for programming on the Long Range Plan and TIP. Aviation and railroad projects are not programmed on the TIP and the sponsoring agencies such as the Williamsport Municipal Airport Authority, Norfolk Southern and SEDA-COG Joint Rail Authority have their own project selection criteria and programming processes, where WATS involvement in project selection is limited to consultation and coordination without direct approval authority over these modes, as per federal law. It is recognized that projects will not address all criteria. Those projects that best address applicable criteria will receive priority attention for WATS Long Range Plan inclusion and TIP programming purposes.

The WATS Technical Committee will initiate the project selection process considering the aforementioned criteria as a starting point and formulate recommendations to the WATS Coordinating Committee for final approval on the Long Range Plan and TIP. Projects must be contained on the WATS MPO Long Range Transportation Plan prior to programming on the WATS TIP for funding.

Public Involvement

Introduction

Public involvement is essential to good planning. Without meaningful public participation, there is a risk of making poor decisions, or decisions that have unintended negative consequences. The fundamental objective of public involvement programs is to make certain that issues of everyone with an interest in transportation decisions are identified and addressed in the development of policies, programs and projects being proposed in Lycoming County.

Federal law, (SAFETEA-LU and MAP-21 and FAST Act) require that *“the MPO shall develop and use a documented participation plan that defines the process for providing citizens, affected public agencies, representatives of public transportation employees, freight shippers, providers of freight transportation services, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.”*

Federal Requirements

According to the Federal Highway Administration, current Federal statutes and regulations provide general guidelines for public involvement processes and procedures. There is great flexibility available to transportation agencies in developing specific public involvement / participation plans. However, while the set of techniques for any given situation may differ depending upon such factors as demographics and identified potential impacts, the general approach to developing a public involvement / participation plan contains elements that are relevant and responsive to all communities. Below are brief excerpts from relevant federal statutes, regulations and Executive Orders setting forth key elements of the public involvement process that is to be used during the transportation planning and project development.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act of 1990 (ADA) “prohibits discrimination on the basis of disability by public entities in services, programs and activities. Public entities are required to make programs accessible to individuals with disabilities including conducting meetings and hearings in ADA-compliant buildings. Special accommodations must be provided to ensure communications are equally effective for persons with disabilities in order to participate in meetings, planning and programming activities.” With advance notice, special provisions must be made to accommodate hearing-impaired or visually impaired participants.



Roads To Freedom
Center for Independent Living of North Central PA

Title VI of the Civil Rights Act

Title VI of the Civil Rights Act of 1964 is the federal law that protects individuals from discrimination on the basis of their race, color, or national origin in programs that receive federal financial

assistance. Title VI states, “No person in the United States shall, on the ground of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.”

Environmental Justice

Presidential Executive Order 12898 states that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Within the transportation field, environmental justice is guided by three core principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority or low-income populations.

Because WATS MPO utilizes federal funds to plan and implement transportation projects the MPO is responsible for undertaking a cursory analysis of federally funded projects listed within the LRTP. In order to show that our plan meets these objectives, an Equity Analysis—a.k.a., “Benefits and Burdens Analysis”—was prepared to show the potential benefit and/or burden on the EJ populations.

EJ Populations were identified using data from the 2010 Decennial Census and the American Community Survey, (ACS). Federal guidelines specify that **minority** and **low-income** populations must be considered in EJ analysis. The following definitions are used for the purposes of this analysis:

Minority: Individuals who are: Black or African American,
Hispanic or Latino,
Asian American, and
American Indian/ Native American or Alaskan Native

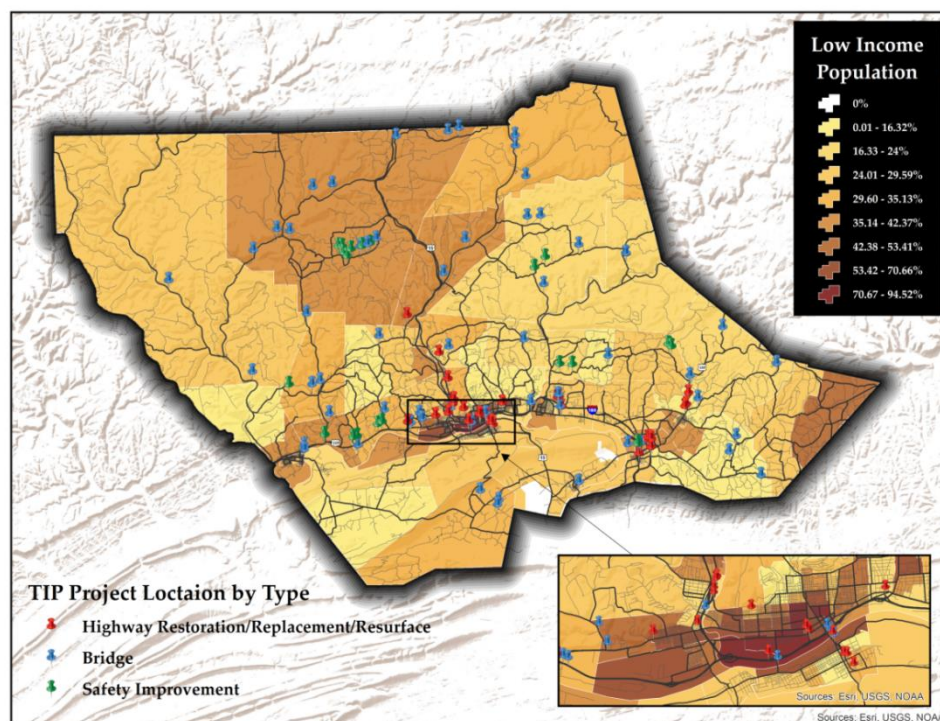
Low-income: Person whose median household income is at or below the U.S. Department of Health and Human Services poverty guidelines.

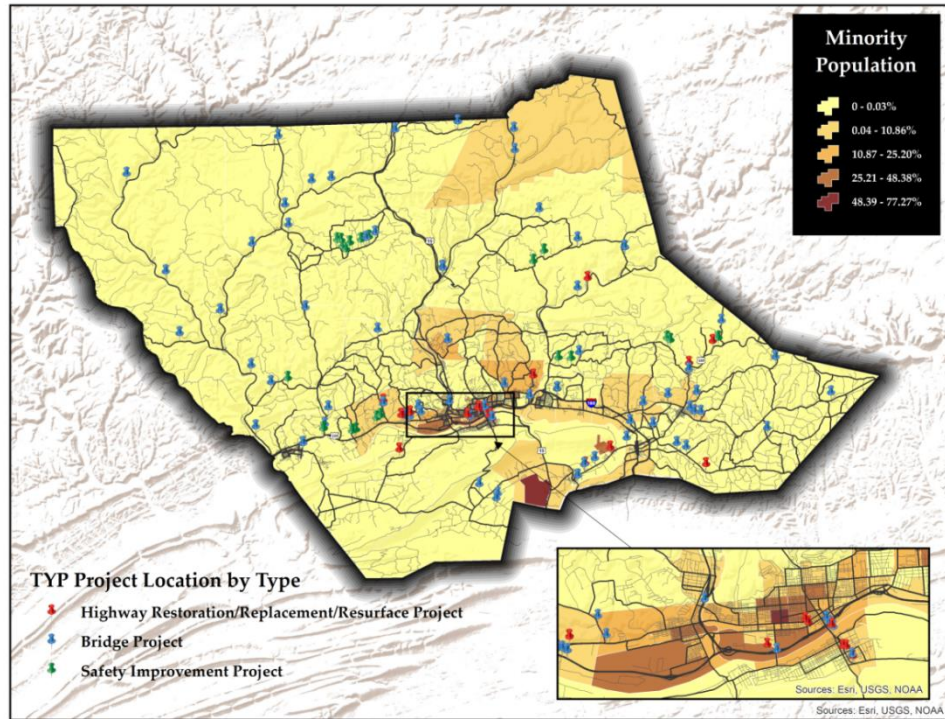
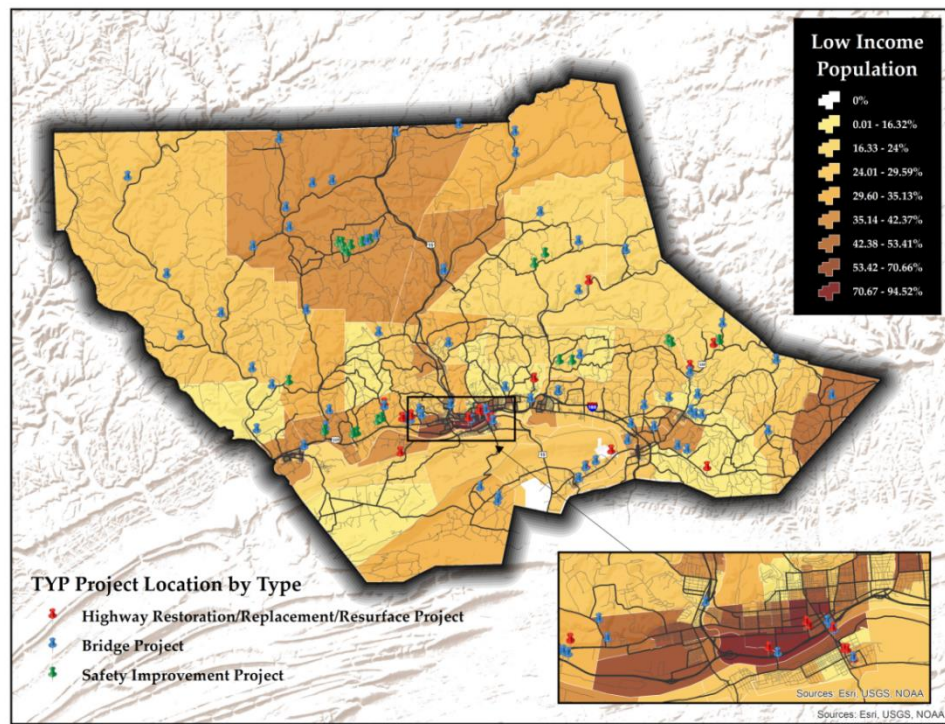
In order to analyze the impact of the projects proposed within this plan on the populations of concern as defined above, Census and ACS data was utilized to prepare illustrative maps. These maps show minority and low-income populations by census block groups within Lycoming County. In the following maps, each census block is categorized by a gradient display to assure a more complete understanding of the populations that they contain. The locations of both short term (2019-22 TIP) and medium term (2023-30 TYP) roadway and bridge projects on the Draft LRTP 2038 were then overlaid to determine the extent and nature of impact. In order to gain additional context for this analysis please refer to the *Demographic Trends* section of Chapter 2 – Planning Context.

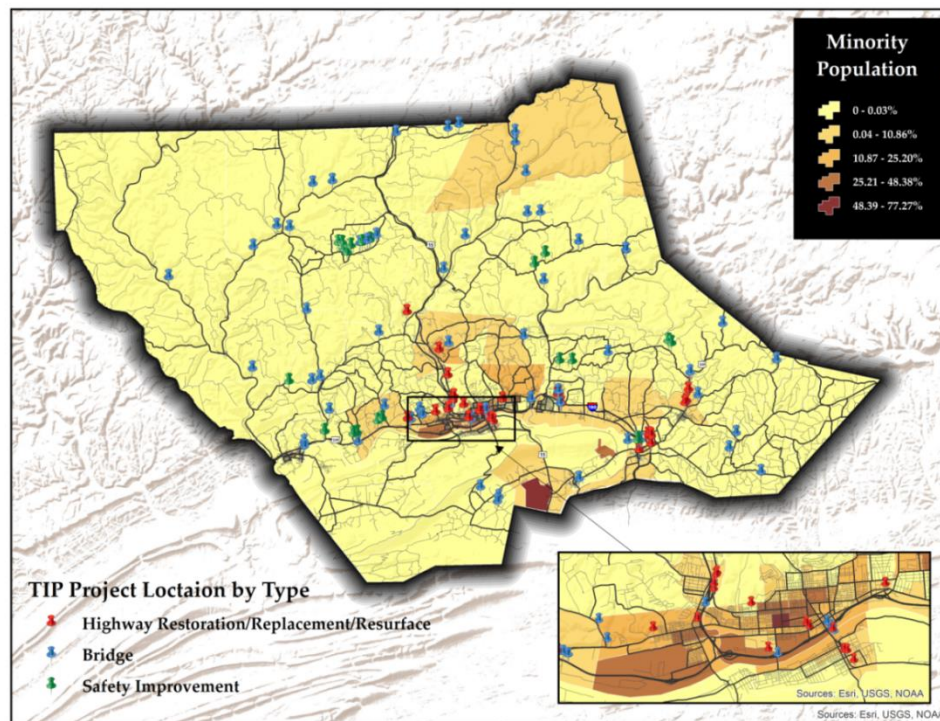
For the roadway and bridge projects on the 2015-2018 TIP which have advanced beyond the Preliminary Engineering or Final Design phases, PennDOT (and its consultant teams) identified populations of concern through the project development process. The project design teams have worked to avoid, minimize, and mitigate adverse impacts to those populations. These efforts are documented in the appropriate environmental clearance documents for the projects.

For other transportation projects which are advancing from the WATS Long Range Plan for programming on the WATS Transportation Improvement Program preliminary design phase, WATS will work with PennDOT and other project sponsors to identify the environmental justice populations and evaluate direct and indirect impacts of the projects on these populations. For projects which have advanced beyond preliminary design phase, WATS, PennDOT and other project sponsors will work to avoid, minimize and mitigate adverse impacts to environmental justice populations. Again, these efforts are documented in the appropriate environmental clearance documents for the projects.

The following maps illustrate both the short term TIP projects and the longer term TYP projects and their locations relative to Low Income Populations and then in comparison to Minority populations in the following series of maps. The populations are featured in a graduated format (which is defined in the legend of each map) and the project types are grouped in the representative categories of Highway Restoration/Replacement/Resurface, Bridge, and finally Safety Improvement.







Of the WATS TIP, the following 13 individual projects are notably located within our most densely populated environmental justice population clusters. These projects are:

- West Fourth Street Reconstruction Project in the Newberry Section of the City of Williamsport.
- West Third Street Reconstruction Project between Campbell and Basin Streets in the City of Williamsport Central Business District.
- Hepburn Street Reconstruction Project between Via Bella and West Third Streets in the City of Williamsport.
- Reconstruction of West Fourth Street from US 15 to Campbell Street in the City of Williamsport.
- High Street resurfacing project from Lycoming Creek Road to Hepburn Street, City of Williamsport.
- Lycoming Creek Road resurfacing project from High Street to Pleasant Hill Road in Old Lycoming, Loyalsock and Lycoming Townships.
- Interstate 180 resurfacing from US 15 to Warrensville Road in the City of Williamsport and Loyalsock Township.
- Pathway to Health Phase IV transportation enhancement project in the City of Williamsport.
- Millers Run Greenway Transportation Enhancement project in Loyalsock Township.
- US 220 West Fourth Street Interchange Ramp 4 bridge improvement in Woodward Township.
- US 220 Corridor Access Management – Safety Improvements from PA 287 to West Fourth Street Interchange in Piatt and Woodward Townships.
- PA 44 over Lawshee Run bridge improvement project in Jersey Shore Borough.

- PA 405 resurfacing project from Main Street to SR 2057 in Muncy Borough and Muncy Creek Township.

As shown by the mapping above, the WATS TIP & TYP projects fairly well distributed throughout the County. Since PennDOT District 3 and the WATS MPO prioritize asset management and safety improvements there are very little occurrences of right-of-way acquisition and practically no capacity expansion projects planned during the LRTP's 20 year planning horizon. The projects that are located in areas of concentrated populations of concern, which may contribute to some short term impacts during construction, will generally benefit those residents by improving traveling conditions and safety for all users.

Going forward, the WATS MPO will continue its targeted outreach efforts to ensure ample opportunities for meaningful input from environmental justice populations on all WATS proposed projects, especially regarding those projects situated within environmental justice population centers which are primarily concentrated within the Williamsport Urbanized Area. The MPO will also continue to refine the locations of populations of concern (as additional ACS and Census information becomes available), to expand methods of analysis for determining benefits and burdens, and to implement techniques for informing all citizens about future transportation projects.

Limited English Proficiency

On August 11, 2000, the President signed Executive Order 13166, "Improving Access to Services for Persons with *Limited English Proficiency*, (LEP). "LEP" persons are those individuals who do not speak English as their primary language, and who also have a limited ability to read, speak, write or understand English. The key commonality among LEP persons is their inability to communicate effectively in the English language, regardless of their native tongue. Persons that are multi-lingual, in that they speak one or more other languages in addition to being proficient in English, are not considered to be Limited English Proficient. The Executive Order is intended to improve access to federally assisted programs and activities for persons who, as a result of national origin, are limited in their English proficiency.

The Federal Highway Administration has published guidance related to LEP in 2005 which includes methods by which transportation agencies can determine the need for translation of materials or provision of interpreters at public hearings or other events. It states that recipients "are required to take reasonable steps to ensure meaningful access to their programs and activities by LEP persons."

State Requirements

Commonwealth of Pennsylvania, Sunshine Law

Act 84 of 1986 as amended June 15, 1993, February 26, 1996 and October 15, 1998 is an act requiring public agencies to hold certain meetings and hearings open to the public; and providing penalties. The PA General Assembly finds that secrecy in public affairs undermines the faith of the public in government. Highlights of this law include:

- *Official action and deliberation by a quorum of the members of an agency shall take place at a meeting open to the public.*

- *Written minutes shall be kept of all open meetings of agencies.*
- *Public notice is not required in the case of an emergency meeting or a conference.*
- *The board or council has the option to accept all public comment at the beginning of the meeting.*
- *A person attending a meeting of an agency shall have the right to use recording devices to record all the proceedings.*



Public Participation Plans

SAFETEA-LU requires MPO's to develop and document, in consultation with interested parties, a Public Participation Plan that details strategies for incorporating visualization techniques, using electronic media, holding public meetings, and responding to public input, among other things prior to development of the Long Range Transportation Plan and Transportation Improvement Program. The public involvement process shall include the publication and distribution of draft versions of the proposed plan and provide adequate opportunities for review and comment. The approved plan must also be published or made readily available in other ways for informational purposes. Where possible, this process should include visualization techniques and make use of the internet. Federal regulations require that public officials (elected and appointed) and citizens have adequate opportunity to participate in the development of the Long Range Plan before it is approved and adopted by the MPO. The regulations explicitly identify several parties who should be engaged and involved throughout the plan development / update process.

WATS MPO Approach Toward Fulfillment of Public Involvement Process

This section of the plan specifically outlines how the WATS MPO, under the leadership direction of the Lycoming County Board of Commissioners and planning staff, responds to the previously outlined federal and state requirements regarding public involvement in the development of this Long Range Transportation Plan, Transportation Improvement Program and during the transportation project development process and preparation of special studies and related plans.

Compliance With Americans with Disabilities Act

All WATS MPO public meetings are located in ADA accessible buildings. Most meetings are held at the Lycoming County Executive Plaza Building, 300 Pine Street, Williamsport, PA 17701. This meeting location is conveniently situated near the River Valley Transit Hub (Trade and Transit Centre) which operates a fully accessible fixed route transit fleet as well as ADA paratransit services subcontracted through shared ride provider, STEP. All public notices published by WATS indicate that special ADA accommodations can be provided with advance notification to the Lycoming County Planning Commission. The WATS Transit Advisory Committee includes voting representation by physically and mentally disabled community organizations and individual transit consumers. If an alternate meeting site is chosen, care is taken to ensure ADA compliance is satisfied. All public meetings associated with development of this Long Range Transportation Plan have been held at the ADA accessible Executive Plaza meeting location.

Compliance with Title VI

The WATS MPO is fully committed to ensure compliance with Title VI. Accordingly, the MPO adopted Title VI complaint procedures at their July 23, 2012 public meeting. Since discrimination can happen at any time in any organization, it is essential employees know what to do if they are given a complaint under Title VI. These MPO adopted compliant procedures are provided in the Appendix section. An example of the Title VI WATS MPO complaint form is illustrated below:

WATS MPO RURAL Planning Organization TITLE VI COMPLAINT FORM		Please provide, if applicable, names and contact information of people who may have knowledge of the alleged incident(s) or are perceived as parties in the complained-of incident(s). _____ _____ _____	
Please Print All Information Below.			
Complainant Name:	Name of Individual Antisiting Complainant:		
_____	_____		
Complainant Address:	Antisiting Individual Address:		
_____	_____		
Complainant Phone #	Antisiting Individual Phone # (Home or Cell)		
_____	_____		
Basis of Complaint: (e.g., Race, Color, National Origin, Sex, Age, Disability, Retaliation)			
Date(s) of alleged discrimination:			
_____ _____ _____			
Please provide a detailed description of the circumstances of the incident(s), including any additional information supporting your complaint (please use additional pages as necessary):			
_____ _____ _____ _____ _____			
Please provide the name(s), title and address of the person who discriminated against the Complainant.			
_____ _____ _____			
Complainant Signature: _____		Date: _____	
The WATS MPO will acknowledge receipt of the complaint by notifying the Complainant within 15 days of the complaint filing. The WATS MPO will transmit the complaint to the proper state or federal agency (e.g., Federal Highway Administration, Federal Transit Administration, and PennDOT) for investigation and disposition pursuant to that agency's Title VI complaint procedures.			
Next Action: _____			
Contact information: Mark Murawski, Lycoming County Transportation Planner Lycoming County Planning Commission 48 West Third Street Williamsport, PA 17701 Phone number: 717-320-2118 Fax number: 717-320-2115 E-Mail: mmurawski@rcpo.org			

All WATS public meeting notices indicate the procedures for filing a Title VI complaint. The WATS MPO has not received any complaints under Title VI associated with development of this plan or other WATS functions.

Compliance with Limited English Proficiency, (LEP)

As noted in Chapter 2, according to current US Census American Community Survey information, there are a total of 109,790 persons in Lycoming County aged five years and older. An estimated 969 people in Lycoming County speak a primary language at home other than English and speak English “less than very well” (0.8% of the population 5 and over). Lycoming County is much lower than the statewide percent of 3.8% primary non English speaking population. This LEP population breakdown for Lycoming County is illustrated below:

Estimated Total Population 5 Years Old And Over			109,790
Estimated Population Speaking Only English			105,810
Language	Total Number of People Speaking Language At Home	Number of People Speaking This Language At Home Who Speak English "Very Well"	Number of People Speaking This Language At Home Who Speak English "Less Than Very Well"
Spanish	1,575	1,231	344
French, Haitian, or Cajun	273	260	13
German or other West Germanic languages	766	551	215
Russian, Polish, or other Slavic languages	274	216	58
Other Indo-European languages	466	402	64
Korean	59	37	22

Chinese (incl. Mandarin, Cantonese)	141	72	69
Vietnamese	80	16	64
Tagalog (incl. Filipino)	54	29	25
Other Asian and Pacific Island languages	117	69	48
Arabic	129	82	47
Other and unspecified languages	46	46	0
TOTAL	3,980	3,011	969

Source: US Census American Community Survey 2012-2015 5-Year Estimates

The WATS MPO complies with LEP requirements by including in the WATS public meeting notices the availability of LEP language translation services upon advance notification.

Compliance with PA Sunshine Law

All WATS public meetings are publicly advertised in the Williamsport Sun Gazette at least 7 days prior to the meeting and are open to the general public. Agendas for the meetings are posted to the Lycoming County website prior to the meeting. Public information requests for WATS produced documents are handled directly either by Lycoming County Planning Department Staff or the Lycoming County Right to Know Public Information Officer in a manner that is in compliance with state law. Minutes of all WATS public meetings are compiled and placed on the Lycoming County website.

Compliance with Public Participation Plan

In 1994, the WATS MPO developed a Public Participation Plan with subsequent plan amendments since that time to ensure compliance with federal public participation requirements and to respond to changing demographics and emerging new technologies that have become available to the WATS MPO to improve public outreach techniques. This plan provides a demographic overview of Lycoming County based on Census information, identifies “interested parties” for WATS targeted public outreach in response to federal SAFETEA-LU requirements and outlines a variety of techniques used by WATS to conduct its public outreach program. The updated demographic profiles for Lycoming County which serve as a foundation of WATS public outreach are outlined in Chapter 3. This section of the plan will focus on the identification of “interested parties” in response to SAFETEA-LU requirements along with discussion of WATS public outreach techniques used in Long Range Plan development and other WATS programs.

Interested Parties

Interested parties are defined under federal SAFETEA-LU legislation. In response, the WATS MPO has further defined interested parties to ensure local public participation among all categories of transportation users and stakeholders defined in the law. The WATS Public Participation Plan identifies the following organizations as interested parties:

- ✓ PennDOT
- ✓ River Valley Transit
- ✓ SEDA-COG Joint Rail Authority
- ✓ Norfolk Southern
- ✓ STEP
- ✓ Billtown Cab

- ✓ Williamsport-Lycoming Chamber of Commerce
- ✓ Lycoming County Tourist Promotion Agency
- ✓ Lycoming County Industrial Properties Corporation
- ✓ All 52 Lycoming County Municipalities (Inc. Townships / Boros Association)
- ✓ Susquehanna Trailways
- ✓ Williamsport Bicycle Club
- ✓ Our Towns 2010
- ✓ PA Motor Truck Association
- ✓ SEDA-COG
- ✓ West Branch Manufacturers Association
- ✓ West Branch Council of Governments
- ✓ Pine Creek Council of Governments
- ✓ PA Department of Environmental Protection
- ✓ PA Department of Community and Economic Development
- ✓ US Army Corps of Engineers
- ✓ Williamsport Municipal Airport Authority
- ✓ PA Aviation Advisory Committee
- ✓ Williamsport Parking Authority
- ✓ Lycoming County Housing Finance, Inc.
- ✓ First Communities Foundation of PA
- ✓ Route 15 Coalition
- ✓ Appalachian Thruway Association
- ✓ PA Highway Information Association
- ✓ Children's Development Center
- ✓ National Multiple Sclerosis Society
- ✓ Easter Seal Society
- ✓ Susquehanna Health
- ✓ Bi-County Office for the Aging
- ✓ American Association of Retired People
- ✓ Lycoming County Mental Health and Mental Retardation
- ✓ Hope Enterprises
- ✓ Williamsport Home
- ✓ Center of Independent Living / Roads to Freedom of Northcentral PA
- ✓ Rose View Manor
- ✓ Sycamore Manor
- ✓ Manor Care Health Services
- ✓ North Central Sight Services
- ✓ Office of Vocational Rehabilitation
- ✓ American Cancer Society
- ✓ Lycoming Valley Association for the Deaf
- ✓ American Lung Association of Central PA
- ✓ Lycoming County Public Assistance Office
- ✓ Williamsport YMCA/YWCA
- ✓ Valley View Nursing Home
- ✓ The Center
- ✓ Lycoming College
- ✓ Penn College
- ✓ Career-Link
- ✓ Lycoming County Health Improvement Coalition
- ✓ AFSCME
- ✓ Coalition for Responsible Growth and Resource Conservation

The WATS MPO conducts direct mailings to the above-listed organizations during development of the WATS Long Range Plan and Transportation Improvement Program and other WATS initiatives as appropriate.



Williamsport/Lycoming Chamber of Commerce

WATS Public Outreach Techniques

The Lycoming County Planning Commission utilizes a variety of public outreach techniques to encourage public participation in the development of WATS programs, including the Long Range Plan and Transportation Improvement Program. These outreach techniques are summarized below:

Public Participation Element	Outreach Technique
WATS Documents Availability	LCPC Office, Interested Party mailings, county website: http://www.lyco.org
Comment Opportunities	Public meetings, written comments (email or hardcopy)
Public Meeting	Hold minimum of 1 public meeting during public comment period and 1 public meeting at plan adoption stage
Public Comment Period Notice	Publish legal notice at least 30 calendar days prior to TIP public comment period ending and 45 calendar days for Long Range Plan ending (appearing in the Williamsport Sun Gazette minimum of 3 times.)
Public Meeting Notice	Publish legal notice at least 7 calendar days prior to public meeting (appearing in Williamsport Sun Gazette)
Public Comment Summary	Prepare a summary of comments received during public comment period)
Visualization Techniques	Where appropriate, make use of Geographic Information System, (GIS) to develop maps, charts, figures, power-point presentations and public displays.
Social Media	Major announcements will be posted to Lycoming County Government Facebook and other social media accounts

During the plan development period, 16 public meetings will take place with active discussion of the long range transportation plan and an opportunity for public input:

Public Meeting	Date/Time	Place	Topics Discussed
WATS Technical Committee	9/11/17 10:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Plan Update Kickoff
WATS Coordinating Committee	9/25/17 1:00 PM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 2
WATS Technical Committee	12/4/17 10:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Opportunity for Public Input
WATS Coordinating Committee	12/18/17 1:00 PM	Executive Plaza, 330 Pine St, Williamsport PA	Opportunity for Public Input
WATS Technical Committee	1/29/18 10:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 3
WATS Coordinating Committee	2/1/18 12:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 3
WATS Technical Committee	4/16/18 10:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 1
WATS Coordinating Committee	4/30/18 1:00 PM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 1
WATS Technical Committee	6/1/18 12:00 AM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 4
WATS Coordinating Committee	6/18/18 1:00 PM	Executive Plaza, 330 Pine St, Williamsport PA	Chapter 4

Lycoming County Board of Commissioners	11/1/2018 10:00 AM	Executive Plaza, Williamsport PA	330 Pine St,	Opportunity for Public Input / Presentation of Draft Plan
Lycoming County Planning Commission (Canceled due to weather)	11/15/2018 6:00 PM	Executive Plaza, Williamsport PA	330 Pine St,	Opportunity for Public Input / Presentation of Draft Plan
WATS Technical Committee	12/3/18 10:00 AM	Executive Plaza, Williamsport PA	330 Pine St,	Opportunity for Public Input / Presentation of Draft Plan
WATS Coordinating Committee	12/17/18 1:00 PM	Executive Plaza, Williamsport PA	330 Pine St,	Summary of Public Comment / Plan Adoption
Lycoming County Planning Commission	12/20/2018 6:00 PM	Executive Plaza, Williamsport PA	330 Pine St,	Rescheduled Presentation of Adopted Plan

The WATS Technical Committee is serving as the overall WATS Long Range Plan development steering committee. In addition to the above noted public meeting schedule, an Agency Coordination Meeting, (ACM) consultation was scheduled with ACM participation environmental agencies on **August 22, 2018** fulfilling the federal environmental consultation public involvement requirements. A federally required 45 day public comment period was advertised by WATS following the ACM presentation beginning on **October 18, 2018** and concluding on **December 2, 2018** for this draft Long Range Transportation Plan. A significant snowstorm, which occurred on the day of our second of two public hearings (11/15/18), forced us to reschedule/re-advertise the hearing for the December 3, 2018 WATS Technical Committee meeting. In doing so, we also extended the public comment period for an additional week to December 7, 2018. All public comments were summarized and addressed prior to the WATS MPO plan adoption date at the December 17, 2018 WATS Coordinating Committee public meeting. Direct mailings of Long Range Plan summary documents will be provided directly to all interested parties outlined previously in this Chapter.

Environmental Impacts

Transportation investments can have a direct, indirect or cumulative impact on the sensitive resources protected under NEPA. 40, CFR SS 1500-1508 defines these impacts as follows:

Direct Impacts: caused by the transportation project and occur at the same time and place.

Indirect Impacts: caused by the transportation project and occur later in time or farther removed in distance. These impacts may include changes in population, land use patterns, effects on the environment, etc..

Cumulative Impacts: caused by incremental impacts of the transportation project when added to other past, present, and reasonably foreseeable future actions.

In Lycoming County, these resources likely include agriculture, wild or stocked trout streams, high quality / exceptional value streams, wetlands, cultural resources, public parks and recreational lands, floodplains and flood buyout areas, waste sites and threatened and endangered or special concern species. Inventories of Environmental, natural, and cultural resources of Lycoming County are included in Chapter 2 of this plan.



Federal law requires consultation with state and federal regulatory and resource agencies to assist in the identification of potential environmental impacts and mitigation activities as conducting such consultation during the plan development process helps link the transportation planning process with the analysis of potential adverse impacts from individual projects under NEPA during project development. As projects as programmed on the Transportation Improvement Program (TIP) and enter project development, WATS will work closely with PennDOT District 3-0 to do the following to minimize and mitigate environmental impacts from transportation projects:

- Work with PennDOT to identify potential wetland banking sites or other mitigation measures identified jointly by resource agencies and PennDOT Engineering District 3-0.
- Use National Wetland Inventory hydric soils in screening, but realize this information may have to be verified using ground-truthing for project specific impacts.
- Use local data for the screening process that includes exceptional value wetlands and drinking water resources.
- Consider mitigation opportunities such as adding parks and trails, resource banking and creating riparian buffers.
- Consider opportunities for public / private partnerships in mitigation.
- Work with the PA Historical and Museum Commission on an approach to cultural and historic preservation and advanced mitigation. As part of bridge project development, evaluate historic structures and potential historic districts surrounding ineligible truss bridges to determine if structures not meeting criteria for the National Register may still contribute to a historic district.
- Consider the use of predictive modeling and topographical guidelines to anticipate where there may be undiscovered archaeological sites.
- Consider the use of historic county maps and aerial photography to determine the locations of resources including major farms, churches, canal and railroad facilities.
- Investigate opportunities during planning and programming to avoid 4 (f) properties for those proposals indicating a potential use of 4 (f) properties.
- Continue early coordination with the PA Game Commission, PA Fish and Boat Commission, PA Department of Conservation and Natural Resources, and U.S. Fish and Wildlife Service.
- Consult with appropriate parties on issues such as important bird and mammal areas, threatened and endangered species issues, where indicated through the project development process, and especially where projects require tree removal.
- For projects where in-stream work is required, consult PA Fish and Boat Commission resources to determine if seasonal restrictions are warranted.
- Consult the PA DEP Chesapeake Bay Watershed Implementation Plan for issues that may have an effect on the WATS Long Range Transportation Plan and activities which can be advanced through the project development process, such as urban stream restoration, abandoned mine reclamation, and dirt and gravel road erosion and sediment control.
- Consider advanced mitigation opportunities, such as stream acid mine drainage restoration as a banking opportunity for stream impacts.
- Consider performance measures related to environmental resources, such as measuring storm water run-off with pollutants, measuring impacts on TMDLs, improvements to dirt and gravel roads owned at the municipal level and number of users on bike / pedestrian trails.

- Continue to use the Linking Planning and NEPA (LPN) system to identify land use/agriculture areas and opportunities to avoid, minimize and mitigate impacts as proposals move from the WATS Long Range Transportation Plan to the WATS Transportation Improvement Program.

In Pennsylvania, the Agency Coordination Meeting, (ACM) is a forum where regulatory and resource agencies meet on a regular basis to discuss potential issues on various transportation projects (typically the more complex Environmental Assessment or Environmental Impact Statement projects), as well as review potential environmental concerns related to projects contained in the long range transportation plans. The ACM resource agency participants include:

- PA Department of Transportation
- PA Department of Environmental Protection
- PA Department of Agriculture
- PA Fish and Boat Commission
- PA Department of Community and Economic Development
- PA Department of Conservation and Natural Resources
- PA Game Commission
- PA Historical and Museum Commission
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Federal Highway Administration

Due to the WATS MPO and PennDOT focus on asset management and maintenance first involving minor or no right of way acquisition regarding the vast majority of projects contained in this Long Range Plan, substantial mitigation efforts are not likely to be required. Small scale mitigation actions most likely will occur at proximate individual project locations. The LCPC is housing all of the PNDI environmental receipts for each of the Long Range Transportation projects that have undergone the linking planning and NEPA screening and PNDI search process which will be used as a starting point by the WATS MPO and project sponsors in advancing each project through the appropriate environmental reviews and coordination.

Transportation Funding Overview

A variety of funding sources can be used to pay for transportation projects. This plan focuses on the primary funding sources that are used to fund transportation projects (highways, bridges, transit, active transportation) on the WATS MPO Transportation Improvement Program, (TIP) with a limited discussion of other modal funding sources related to air and rail projects that are funded outside the TIP process.

Highway and Bridge Funding

The current federal surface transportation legislation is entitled the Fixing America's Surface Transportation Act (FAST Act). It was signed into law by the President on December 4, 2015 and authorizes funding from federal fiscal year 2017 through 2020. The FAST Act builds upon the streamlined and performance-based initiatives created by MAP-21 and provides a predictable level of funding with modest growth while ensuring the solvency of the Highway Trust Fund through the life of the legislation.

Federal Base Funding categories

National Highway Performance Program (NHPP) funds can be used on facilities located on the National Highway System (NHS)

Surface Transportation Block Grant (STP) funds can be used to improve Federal-Aid highways and bridges not on the NHS

Highway Safety Improvement Program (HSIP) funds are used for highway safety improvement projects

State base funding categories

State Bridge Allocation – used for state system bridges

State Highway (Capital) Allocation – used for state system roads

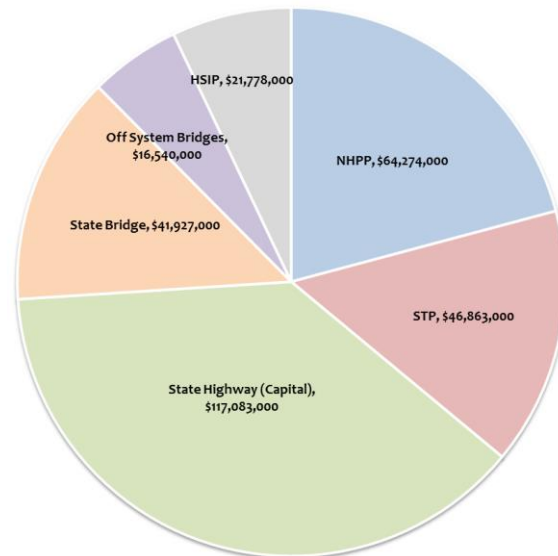
BOF - this category of funds may be used for local or minor collector functional class bridges

Note: several other categories of state and federal base funding exist, however WATS is not eligible for these funds and therefore they are not listed.

Expected total revenue from base funding sources over the life of this plan (2018-2038):

Other state funding outside of the base allocation:

Discretionary Funding (Spike) – 20% of Pennsylvania's total Surface Transportation Block Grant Program (STP) funding received from the federal government as well as 15% of available state highway (capital) and bridge funds (required by Act 89) are held in reserve.



These funds are distributed by the Secretary of Transportation in consultation with the State Transportation Commission (STC) to supplement high cost projects or programs ("spikes") which are beyond a region's allocation, or other statewide priorities.

409 funding program – state funding that began with Act 89 to be used for maintenance and distributed directly to PennDOT District Maintenance

Surface Transportation Block Grant Program Set-Aside (formerly Transportation Alternatives Program [TAP]) – MPOs with a population over 200,000 receive a base funding allocation of these funds, but WATS does not qualify. However, 50% of the statewide available funds are held in reserve and made available on a competitive basis

Federal Funding for Airports

The Federal Aviation Administration Airport Improvement Program, (AIP) is the largest federal funding source available for airports that are part of the National Plan of Integrated Airport Systems, (NPIAS). The NPIAS contains all commercial service airports, (such as the Williamsport Regional Airport), all reliever airports and selected general aviation airports that are deemed significant to national air transportation and thus eligible to receive federal AIP grants. The NPIAS is updated and published every two years. For small primary, reliever, and general aviation airports, the grant covers a range of 90-95 percent of eligible project costs, based on statutory requirements. AIP funding can be used on most airfield capital improvements. Projects related to airport operations and revenue generating improvements are typically not eligible for funding. AIP funding is derived from aviation user fees, aviation fuel taxes and other similar revenue deposited into the Airport and Airway Trust Fund. A portion of FAA AIP funding is used for their Discretionary Grant Program to further assist NPIS airports with eligible capital improvement needs that cannot be funded by their AIP grant allocations.



Federal Funding for Railroads

The Federal Railroad Administration, (FRA) supports passenger and freight railroading through a variety of competitive grants, dedicated grants and loan programs. Since there is no passenger rail service in Lycoming County freight railroad federal funding assistance is limited to the Rail Line Relocation and Improvement Capital Grant Program, (RLR); Railroad Rehabilitation and Repair, (Disaster Assistance); Railroad Safety Technology Grant Program, Transportation Investment Generating Economic Recovery, (TIGER) and Railway-Highway Crossing Hazard Elimination Program; Railroad Rehabilitation & Improvement Financing (RRIF) Loan Program and Transportation Innovation and Finance, (TFIA) Loan Financing which is available to other transportation modes, in addition to rail. The SEDA-COG Joint Rail Authority has made significant recent use of the TIGER II and RLR Programs to finance Lycoming County rail infrastructure upgrades, including replacement of the Loyalsock Creek Railroad Bridge.



Loyalsock Creek Railroad Bridge Replacement Under Construction
Local Use of FRA TIGER II and RLR Grant Funds

Programming of Federal and State Transportation Funds

The previously mentioned PennDOT administered federal and state transportation funding programs for all transportation modes are approved by the PA State Transportation Commission (STC) consisting of 15 members.

The STC was established by PA Act 120 of 1970, which also created PennDOT. This state law requires PennDOT to prepare an update to the PA Twelve Year Transportation Program every two years and submit it to the STC. The Twelve Year Program must be multi-modal and fiscally constrained. The STC seeks public input in advance of each Transportation Program Update. For the 2015 Transportation Program, the STC has just launched a new public outreach process referred to as *Talk PA Transportation* that will replace years of scheduled public hearings and modernize how public feedback is collected on transportation needs using a new website and other public outreach techniques that will complement the WATS MPO Public Involvement Process previously outlined in Chapter 6. For example, an STC member will now be assigned to each planning partner agency to attend certain MPO/RPO public meetings. The STC will still hold quarterly public meetings.



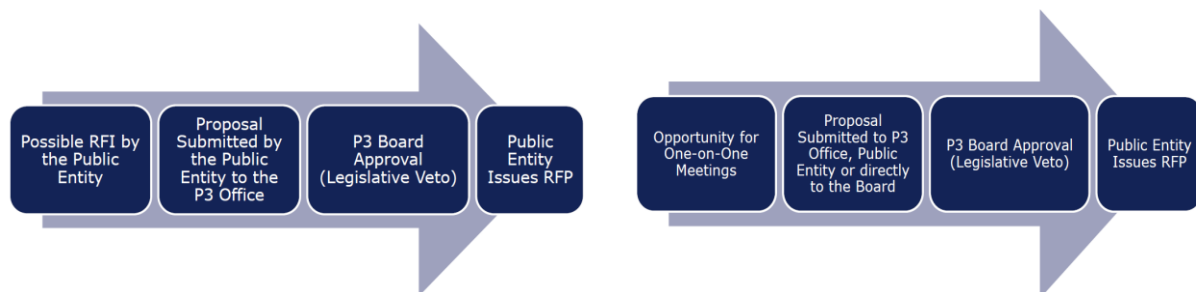
Local and Private Transportation Funding Sources

Currently neither Lycoming County nor any of its 52 local municipalities levy local transportation taxes or fees. Rather, most transportation dollars used for funding highway and bridge projects that are either county or locally owned are derived from the PA Motor Liquid Fuels allocations made by the Commonwealth. Lycoming County receives approximately \$ 400,000 annually in state liquid fuels funds. Local municipalities receive a direct allocation from the state in addition to a county shared allocation typically in the amount of \$ 150,000 per year. The state and county allocations to municipalities are based upon a formula that considers each local municipality's road mileage and population.

As noted in Chapter 2, the PA General Assembly enacted Act 13 in 2012 which provides additional state funding to counties and local municipalities to use for transportation improvements among other eligible uses specified in the Act from Marcellus natural gas exploration fees paid to the state by gas drillers. Some municipalities have used municipal general funds to supplement their liquid fuels and Act 13 funding for local transportation projects.

In terms of private developer contributions to pay for off-site transportation improvements, this is currently done on a voluntary basis between the County and local municipalities and private developers as there are no official PA Act 209 Impact Fee Transportation Service Areas, (TSA's) established in Lycoming County. PennDOT is authorized to secure private developer funding for transportation improvements on state roads specifically impacted by their development as a condition of PennDOT Highway Occupancy Permit approvals in certain cases. To date, there are no public private partnership proposals authorized under PA Act 88 (PA Public Private Transportation Partnerships (P3) legislation pending in Lycoming County.

PA P3 Process



Williamsport Area Transportation Study Capital Transportation Projects

Introduction

This section of the WATS Long Range Transportation Plan provides a listing of proposed transportation capital improvement projects proposed by the WATS MPO for staged implementation over the next 20 years (2019-2038). The projects identified have been carefully scrutinized through the WATS planning process and are consistent with the project selection criteria outlined earlier in this chapter.

Anticipated available funding sources for WATS MPO projects also presented earlier in this chapter will be applied to ensure that the planned projects are fiscally constrained in that anticipated funding to implement the proposed projects is expected to be reasonably available. For projects eligible to receive FAST Act federal funds along with state matching funds, the WATS MPO will be using guidance issued by PennDOT through its Financial Guidance Work Group. Aviation and rail capital improvement projects are also shown in this plan based upon priorities assigned by the Williamsport Municipal Airport Authority and SEDA-COG Joint Rail Authority, respectively, however these projects do not need to be fiscally constrained as aviation and rail projects are not required by federal law to be included in the WATS MPO approved TIP and PennDOT financial guidance does not address these modal categories when establishing funding targets.

To facilitate review of project priorities and ensure fiscal constraint, all projects shall be aggregated by transportation mode and staged based on the following timeframes:

Short Term: (Years 1-4) consistent with the WATS MPO approved FFY 2019-2022 Transportation Improvement Program, (TIP). These are the highest priority and currently underway projects.

Medium Term: (Years 5-8 [second four years], and years 9-12 [third four years]) consistent with the PennDOT Twelve Year Program Period. These are projects with phases carried over from the first four years or Twelve Year Plan projects not programmed on the current TIP or Decade of Investment projects not programmed on the current TIP. Line item reserves are included to fund future asset management and safety projects. These projects will be selected based on PennDOT priorities, performance measures adopted by WATS, and the objectives identified within this plan.

Long Term: (Years 13-20) consistent with WATS Long Range Transportation Plan horizon. Any specific projects identified in this time period would be anticipated carryover phases from projects begun the medium term. Otherwise, transportation spending in this period will be represented as line item reserves to fund future asset management and safety projects. These projects will be selected based on PennDOT priorities, performance measures adopted by WATS, and the objectives identified within this plan.

Project phases projected to take place within each timeframe are identified by the following notation:

PE = Preliminary Engineering (including studies)
 FD = Final design
 UTL = Utilities
 ROW = Right of way
 CON = Construction

WATS MPO Short Term Transportation Project Priorities

Highway and Bridge

Projects

The table below lists all of the projects in the 2019-2022 WATS Transportation Improvement Program (TIP). Details about each project can be found by entering the MPMS (Multimodal Project Management System) ID number into the [PennDOT One Map](#) viewer.

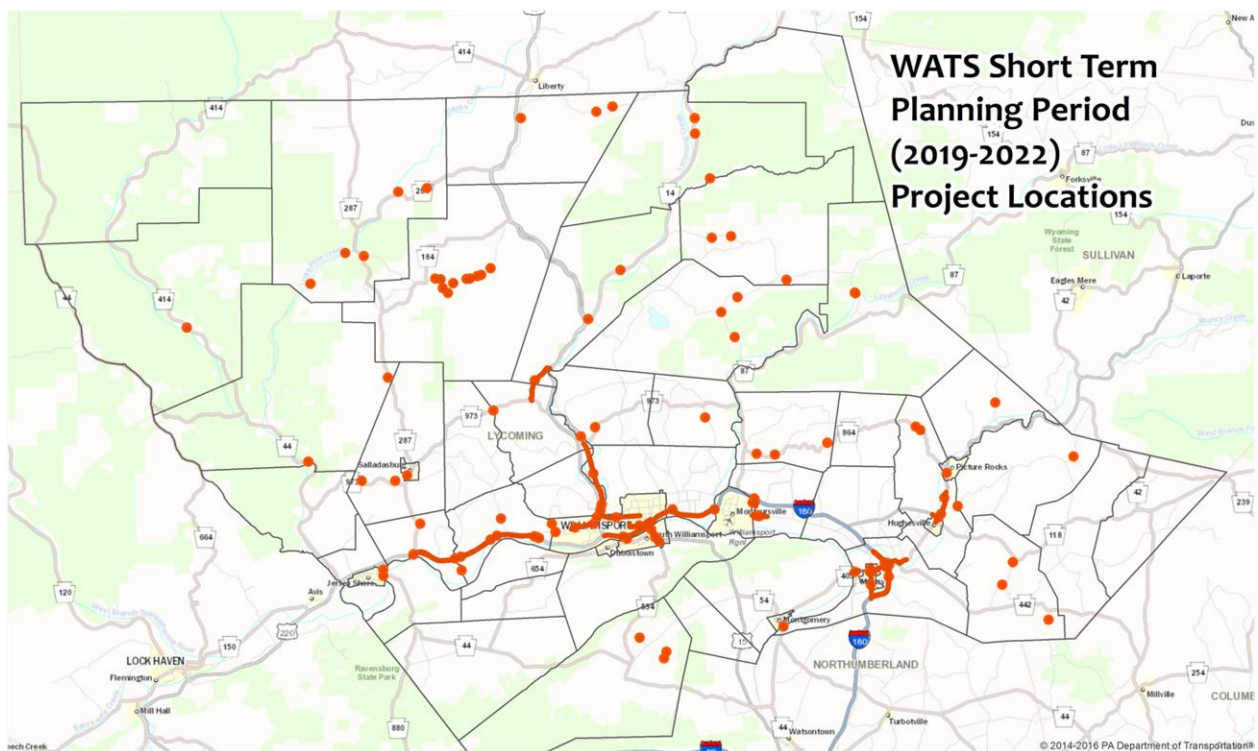
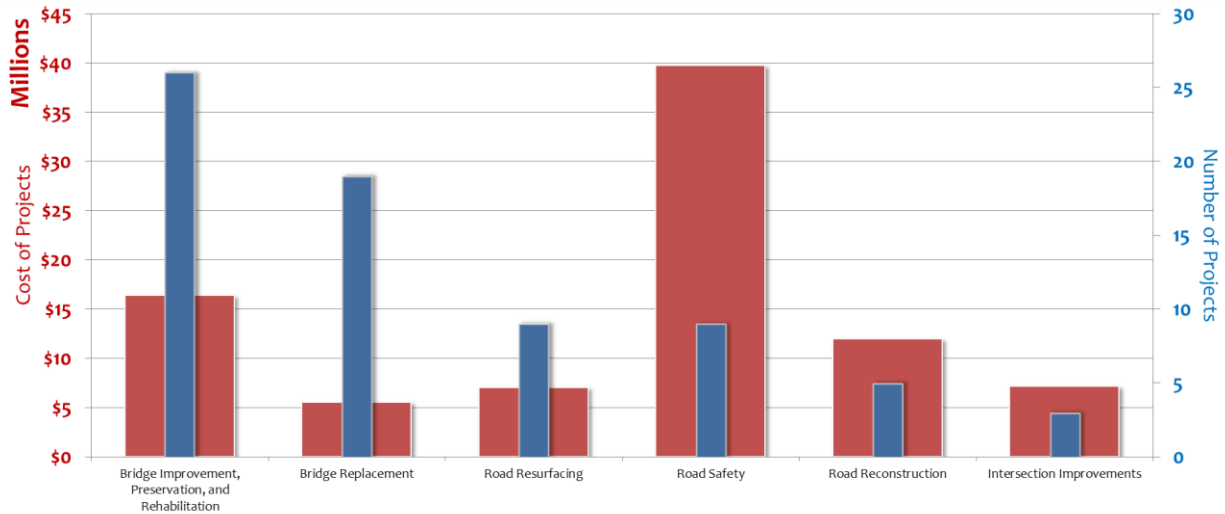
MPMS Number	Project Location	Project category	Cost	Phases	Project has phases in medium term
5755	SR 1010 over Roaring Branch, Jackson Township	Bridge Improvement	\$80,000	PE	YES
5920	SR 1006 over Tributary to Wallis Run, Cascade Township	Bridge Improvement	\$20,000	PE	YES
6106	SR 3018 over 1st Fork Larrys Creek, Mifflin Township	Bridge Improvement	\$205,000	FD, UTL, ROW, CON	
97625	SR 287 over Larrys Creek, Cummings Township	Bridge Improvement	\$60,000	FD, UTL, ROW	YES
99027	SR 1010 over Little Elk Run, Jackson Township	Bridge Improvement	\$271,000	PE, FD, ROW, CON	
99032	SR 2004 over Tributary to Spring Creek, Washington Township	Bridge Improvement	\$152,000	PE, FD, UTL, ROW, CON	YES
99400	SR 287 over Lick Run, Pine Township	Bridge Improvement	\$60,000	FD, UTL, ROW	YES
106124	US-220 over Ramp A to W 4th St, Woodward Township	Bridge Improvement	\$4,085,000	PE, FD, UTL, CON	
106207	SR 3015 over Stoney Gap Run, Anthony Township	Bridge Improvement	\$235,000	PE, FD, UTL, ROW, CON	
110167	SR 54 over West Branch Susquehanna River, Montgomery Borough	Bridge Improvement	\$172,000	PE, FD	YES
110182	SR 1006 over Slacks Run, Cascade Township	Bridge Improvement	\$40,000	PE	YES
110190	SR 2004 over Tributary to Spring Creek, Washington Township	Bridge Improvement	\$20,000	PE	YES
99034	Bridge deck overlays (multiple municipalities - 10 bridges)	Bridge Preservation	\$25,000	FD	YES
6209	SR 4001 over Little Pine Creek, Pine Township	Bridge Rehabilitation	\$5,169,000	FD, UTL, ROW, CON	
88743	SR 4001 over Little Pine Creek, Pine Township	Bridge Rehabilitation	\$10,000	FD	YES
88746	SR 14 over Grays Run, Lewis Township	Bridge Rehabilitation	\$900,000	CON	
88967	SR 414 over Bluestone Run, McHenry Township	Bridge Rehabilitation	\$465,000	FD, UTL, ROW, CON	
97609	SR 44 over Ramsey Run, Cummings Township	Bridge Rehabilitation	\$540,000	PE, FD, UTL, ROW, CON	YES
99052	SR 3010 over Larrys Creek, Piatt Township	Bridge Rehabilitation	\$80,000	PE	YES
99061	SR 4010 over Larrys Creek, Cogan House Township	Bridge Rehabilitation	\$80,000	PE	YES
99226	Bridge painting (multiple bridges on I-180, multiple municipalities)	Bridge Rehabilitation	\$50,000	PE, FD	YES

99383	SR 14 over Abbots Run, McIntyre Township	Bridge Rehabilitation	\$60,000	PE	YES
99408	SR 2083 over Lick Run, Shrewsbury Township	Bridge Rehabilitation	\$40,000	PE	YES
102022	SR 14 over Lycoming Creek, McIntyre Township	Bridge Rehabilitation	\$1,100,000	CON	
106125	SR 1003 over Jackson Hollow Run, Gamble Township	Bridge Rehabilitation	\$105,000	UTL, CON	
106133	Bridge painting (multiple bridges, multiple municipalities)	Bridge Rehabilitation	\$2,352,000	CON	
5891	T-665 over Pleasant Stream, McIntyre Township	Bridge Replacement	\$1,000,000	CON	
5939	SR 284 over Flooks Run, Pine Township	Bridge Replacement	\$80,000	PE	YES
5983	SR 1005 over Plunketts Creek, Plunketts Creek Township	Bridge Replacement	\$80,000	PE	YES
6030	SR 2061 over Beaver Run, Penn Township	Bridge Replacement	\$60,000	PE	YES
6031	SR 4010 over Larrys Creek, Cogan House Township	Bridge Replacement	\$40,000	PE	YES
6085	T-836 over Trout Run, Lewis Township	Bridge Replacement	\$200,000	PE	YES
6261	SR 405 over Glade Run, Muncy Borough	Bridge Replacement	\$1,140,000	PE, FD, UTL, ROW, CON	
87918	SR 44 over Lawshe Run, Jersey Shore Borough	Bridge Replacement	\$1,001,000	CON	
93679	SR 2013 over Laurel Run, Moreland Township	Bridge Replacement	\$125,000	CON	
97623	SR 284 over Blacks Run, Pine Township	Bridge Replacement	\$80,000	PE	YES
97632	SR 2003 over Spring Creek, Washington Township	Bridge Replacement	\$80,000	PE	YES
99013	SR 1006 over Slacks Run, Cascade Township	Bridge Replacement	\$170,000	UTL, CON	
99025	SR 1009 over Tributary to Blockhouse Creek, Jackson Township	Bridge Replacement	\$100,000	PE, FD, UTL, ROW	YES
99035	SR 2075 over Greggs Run, Wolf Township	Bridge Replacement	\$100,000	PE, FD, UTL, ROW	YES
99036	SR 3007 over Pine Run, Piatt Township	Bridge Replacement	\$202,000	FD, UTL, ROW, CON	
99038	SR 2014 over Bennetts Run, Fairfield Township	Bridge Replacement	\$225,000	PE, FD, CON	
101971	SR 2069 over Broad Run, Moreland Township	Bridge Replacement	\$220,000	FD, UTL, ROW, CON	
106085	T-369 over Queneshukeny Run, Woodward Township	Bridge Replacement	\$200,000	PE	YES
110203	T-556 over East Mill Creek, Upper Fairfield Township	Bridge Replacement	\$446,000	PE, FD, UTL, ROW, CON	
6096	SR 405 and SR 2014 Intersection, Muncy Borough	Intersection Improvement	\$575,000	FD, UTL, ROW, CON	
93016	US 220 and SR 405 Intersection, Hughesville Borough/Wolf Township	Intersection Improvement	\$2,307,000	UTL, CON	
98166	SR 2045 and Bushy Ridge Rd Intersection, Fairfield Township	Intersection Improvement	\$2,950,000	CON	

98983	US 15 from Main St to Southern Ave, South Williamsport Borough	Reconstruction	\$250,000	PE	YES
81897	SR 2060 from Via Bella to 3rd St, City of Williamsport	Reconstruction	\$675,000	UTL, CON	YES
87987	SR 2014 from Campbell to Basin, City of Williamsport	Reconstruction	\$6,238,000	UTL, CON, ROW,	YES
93732	SR 2014 from Campbell St to US 15, City of Williamsport	Reconstruction	\$1,125,000	PE	YES
108112	SR 2014 from Hillside Ave to US-15, City of Williamsport	Reconstruction	\$3,700,000	CON	
97672	I-180 from Muncy Creek to SR 2014, Muncy Creek Township	Resurface	\$960,000	CON	
97803	SR 2056 from Northway Rd to Washington Blvd, Loyalsock Township	Resurface	\$150,000	CON	
98924	US 220 from Muncy Creek to Main St, Wolf Township/Picture Rocks Borough	Resurface	\$420,000	CON	
98931	SR 405 from SR 2014 to SR 2057, Muncy Borough/Muncy Creek Township	Resurface	\$15,000	FD	
98942	SR 2016 from Lycoming Creek Rd to Hepburn St, Old Lycoming Township/Loyalsock Township/City of Williamsport	Resurface	\$79,000	CON	
99029	SR 1017 from High St to Pleasant Hill Rd, Old Lycoming Township/Loyalsock Township/Lycoming Township	Resurface	\$750,000	CON	
99410	SR 2014 from SR 405 to Rose Hill Rd, Muncy Borough	Resurface	\$865,000	PE, CON	
105532	I-180 from US-15 to Warrensville Rd, City of Williamsport/Loyalsock Township	Resurface	\$100,000	PE	YES
106156	SR 3029 from SR 973 to Lycoming Creek Rd, Lycoming Township/Lewis Township	Resurface	\$300,000	CON	
93732	US 220 from SR 287 to 4th St, Piatt Township/Woodward Township	Safety Improvement	\$38,797,000	FD, UTL, ROW, CON	
106182	Countywide Cable Guiderail Upgrade, multiple municipalities	Safety Improvement	\$140,000	PE, FD, ROW	YES
106219	2019 Reflective Pavement Markers, multiple municipalities	Safety Improvement	\$30,000	CON	
108942	Wrong Way ramp signs, multiple municipalities	Safety Improvement	\$290,000	CON	
110248	2020 Reflective Pavement Markers, multiple municipalities	Safety Improvement	\$30,000	CON	
110249	2021 Reflective Pavement Markers, multiple municipalities	Safety Improvement	\$30,000	CON	
110250	2022 Reflective Pavement Markers, multiple municipalities	Safety Improvement	\$30,000	CON	
110769	I-180 delineation project, multiple municipalities	Safety Improvement	\$725,000	CON	
110771	Districtwide Cable Guiderail Upgrade, multiple municipalities	Safety Improvement	\$1,050,000	CON	

The chart below provides a breakdown of FFY 2013-2016 WATS TIP funding by project category. Highway related improvements account for approximately 60% of highway and bridge spending. All improvements are related to system preservation and safety.

Summary of projects and spending by project category:



Fiscal Constraint Summary

The WATS FFY 2019-2022 Transportation Improvement Program was officially adopted by the WATS MPO at their June 18, 2018 public meeting. The Federal Highway Administration subsequently approved the WATS TIP as satisfying federal fiscal constraint.

The WATS MPO relies upon PennDOT Financial Guidance to establish fiscal constraint targets for the TIP and Long Range Plan. The following table shows the anticipated funding for the short term time frame. All projects and line items were constrained to meet these funding levels.

*WATS MPO Highway / Bridge Base Funding Allocations
Based on PennDOT FFY 2019-2022 Program Financial Guidance*

Federal Fiscal Year	NHPP	STP	State Highway (Capital)	State Bridge	Off System Bridges	HSIP	TOTAL
2019	\$3,111,000	\$2,305,000	\$4,648,000	\$2,101,000	\$827,000	\$1,068,000	\$14,060,000
2020	\$3,220,000	\$2,347,000	\$5,128,000	\$2,101,000	\$827,000	\$1,090,000	\$14,713,000
2021	\$3,220,000	\$2,346,000	\$5,457,000	\$2,100,000	\$827,000	\$1,090,000	\$15,040,000
2022	\$3,219,000	\$2,345,000	\$5,995,000	\$2,100,000	\$827,000	\$1,090,000	\$15,576,000
TOTAL	\$12,770,000	\$9,343,000	\$21,228,000	\$8,402,000	\$3,308,000	\$4,338,000	\$59,389,000

The FFY 2019-222 WATS TIP contains 71 projects with a total programmed amount of \$84,506,000. There are 26 highway related improvement projects and 45 bridge improvement projects included on the WATS TIP. The TIP is deemed fiscally constrained because \$59,389,000 from the above referenced PennDOT Financial Guidance approved highway/bridge base allocations established for the WATS MPO is being used toward these projects along with an additional \$25,117,000 from funding sources that are considered to be “in addition to our region’s base allocation” such as federal earmarks (SXF), “SPIKE” funds, discretionary funds, economic development funds, flex funds along with local contributions.

Transit

Projects

Agency	Project	Year	Cost
River Valley Transit	Purchase 2 Other Transit Vehicles	2019	\$125,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2019	\$2,500,000
River Valley Transit	Support Equipment	2019	\$75,000
River Valley Transit	Spare Components	2019	\$100,000
River Valley Transit	Economic/Joint Development	2019	\$6,200,000
	Streetscape		\$500,000
	Trade & Transit Center Complex		\$2,000,000
	East 3rd Street Revitalization		\$3,700,000
STEP, Inc.	Purchase 10 vehicles	2019	\$684,000
STEP, Inc.	Purchase network switch	2019	\$1,600
STEP, Inc.	Purchase 2 laptops	2019	\$3,800
STEP, Inc.	Purchase 36 computer tablets	2019	\$5,364
STEP, Inc.	Purchase 4 security cameras	2019	\$2,000
STEP, Inc.	Purchase portable radio	2019	\$400

River Valley Transit	Purchase 6 Fixed Route Buses	2020	\$2,600,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2020	\$500,000
River Valley Transit	Support Equipment	2020	\$100,000
River Valley Transit	Spare Components	2020	\$75,000
River Valley Transit	Economic/Joint Development	2020	\$1,000,000
	Streetscape		\$500,000
	East 3rd Street Revitalization		\$500,000
STEP, Inc.	Purchase 4 vehicles	2020	\$273,600
STEP, Inc.	Purchase 13 workstations	2020	\$45,606
STEP, Inc.	Purchase 13 Computers	2020	\$9,100
River Valley Transit	Purchase 2 Other Transit Vehicles	2021	\$131,000
River Valley Transit	Support Equipment	2021	\$75,000
River Valley Transit	Spare Components	2021	\$100,000
River Valley Transit	Economic/Joint Development	2021	\$750,000
	Streetscape		\$500,000
	Church Street Transportation Center		\$250,000
STEP, Inc.	Purchase 17 vehicles	2021	\$1,162,800
River Valley Transit	Purchase 3 Fixed Route Buses	2022	\$2,000,000
River Valley Transit	Purchase Support Vehicles	2022	\$125,000
River Valley Transit	Support Equipment	2022	\$75,000
River Valley Transit	Spare Components	2022	\$100,000
River Valley Transit	Economic/Joint Development	2022	\$750,000
	Streetscape		\$500,000
	Regional Transit Hubs		\$250,000
STEP, Inc.	Purchase 1 vehicle	2022	\$63,883
STEP, Inc.	Facility improvements	2022	\$1,437,633
STEP, Inc.	Purchase network switch	2022	\$1,600
Total Transit Improvements			\$21,072,386

Fiscal Constraint Summary

The WATS FFY 2019-2022 Transportation Improvement Program was officially adopted by the WATS MPO at their June 18, 2018 public meeting. The Federal Transit Administration subsequently approved the WATS TIP as satisfying federal fiscal constraint requirements. The TIP contains \$21,072,386 in programmed transit projects for River Valley Transit and STEP.

The WATS MPO relies upon PennDOT Financial Guidance to establish fiscal constraint targets for the TIP and Long Range Plan. The following table shows the anticipated funding for the short term time frame. All projects and line items were constrained to meet these funding levels.

WATS MPO Transit Base Funding Allocations
Based on PennDOT FFY 2019-2022 Program Financial Guidance

	FFY 2019	FFY 2020	FFY 2021	FFY 2022
RVT - Operating Assistance	\$4,192,000	\$4,234,000	\$4,277,000	\$4,319,000
STEP, Inc. - Shared Ride	\$1,017,000	\$1,017,000	\$1,017,000	\$1,017,000
Total State Funding	\$5,209,000	\$5,251,000	\$5,294,000	\$5,336,000
Federal Transit Funding	\$2,118,000	\$2,163,000	\$2,163,000	\$2,163,000
Transit Funding Grand Total	\$7,327,000	\$7,414,000	\$7,457,000	\$7,499,000

Airport

Projects

Location	Improvement	Phases	Year(s)	Cost	Funding
Williamsport Regional Airport	Master Plan Update	All	2019-2020	\$400,000	AIP, BOA, LOC
Williamsport Regional Airport	Realign Taxiway Bravo	All	2019-2020	\$1,000,000	AIP, BOA, LOC
Williamsport Regional Airport	Aircraft Hardstands	All	2019-2020	\$500,000	AIP, BOA, LOC
Williamsport Regional Airport	Reconstruct Airport Road	All	2020-2021	\$1,111,000	AIP

Fiscal Constraint Summary

The capital projects for the Williamsport Regional Airport for FFY 2019-2022 have been identified and prioritized by the Williamsport Municipal Airport Authority and approved as part of the overall PennDOT Twelve Year Transportation Program aviation section and are also included on the PennDOT Bureau of Aviation, JCIP system. A total of \$3,011,000 in airport projects are shown for the first four years of this plan. Revenue levels are anticipated to fully cover estimated project costs shown above primarily from FAA Airport Improvement Program, (AIP) entitlement funding for the Williamsport Regional Airport during this time period along with state and local required matching funds. As stated earlier, airport projects are not federally required to be programmed on the WATS MPO TIP and are therefore not subject to overall TIP fiscal constraint requirements, however these projects are illustrated and supported in the WATS Long Range Plan to ensure a coordinated, multi-modal focus of this plan.

Rail

Projects

Future project planning for the SEDA-COG Joint Rail Authority does not naturally break into the same time period categories as other modes. Therefore all proposed future rail projects are shown below under “short term.”

Plan Reference	Timeframe	Project Locations / Track Systems	Funding Sources	Description	Estimated Cost
PA Passenger & Rail Plan	Mid-term Projects (3-5 years)	Muncy Industrial Park Sidings	TBD	Construct sidings to Muncy Industrial Park sites	\$2,000,000
PA Passenger & Rail Plan	Long-term Projects (5+years)	Welded Rail Installation	TBD	Between Montoursville and Saegers State due to increasing traffic	\$3,000,000
PA Passenger and Rail Plan	Long-term Projects (5+years)	Track Rehabilitation – Koppers	TBD	Major rehabilitation of tracks to serve largest customer	\$100,000
SEDA-COG Strategic Plan	Next 20 Years	All	RTAP	Railroad bridge upgrades - load capacity	\$2,100,000.00
SEDA-COG Strategic Plan	Next 20 Years	LVRR	RTAP	Track upgrades and expansion, new construction of storage tracks (Williamsport to S. Avis)	\$1,260,000.00
SEDA-COG Strategic Plan	Next 20 Years	NB/LV/NS/JV/SV	RTAP	Capital/safety upgrades to 8 bridges	\$3,500,000.00
SEDA-COG Strategic Plan	Next 20 Years	LV/NB/NS	RTAP	Upgrade 22 bridges	\$1,911,000.00

SEDA-COG Strategic Plan	Next 20 Years	JV/LV/NB/NS	RTAP	Bridges/culverts/bank stable - flood mitigation	\$5,000,000.00
SEDA-COG Strategic Plan	Next 20 Years	LV/NB	RTAP	construct track/TO replacement (MATI) - rail upgrades	\$3,500,000.00
SEDA-COG Strategic Plan	Next 20 Years	LVR	RTAP	Purchase industrial property - Clinton Twp - Bishop 27 acres - construct track	\$1,750,000.00
SEDA-COG Strategic Plan	Next 20 Years	LVR	RTAP	NBY - track construct/TO replacements/realign track	\$2,450,000.00
SEDA-COG Strategic Plan	Next 20 Years	LVR	RTAP	Track upgrades/rail replacement/crossing construct - NBY to South Avis	\$4,900,000.00
SEDA-COG Strategic Plan	Next 20 Years	JV/LV/NB/NS/SV	RTAP	Construct/renovate 22 bridges	\$1,900,000.00
SEDA-COG Strategic Plan	Next 20 Years	LV/NB/NS	RTAP	Construct/rehab tracks and sidings	\$2,340,000.00

Fiscal Constraint Summary

The list of projects above has been compiled through listings found in Appendix 9 (Freight Rail Projects) of the Pennsylvania Intercity Passenger & Freight Rail Plan and the SEDA-COG Joint Rail Authority (JRA) strategic plan. A majority of these projects have received line item authorizations in the state capitol budget through the Rail Transportation Assistance Program (RTAP). The capital projects proposed along the Lycoming Valley Railroad have been identified and prioritized by the SEDA-COG Joint Rail Authority with an implementation timeframe over the next twenty years as funding becomes available. There are a total of fourteen rail improvement projects proposed along JRA owned rail lines that impact, to some degree, the Lycoming Valley Rail Road system. The total estimated cost of these projects is projected to be \$35,711,000. Revenue levels are anticipated to fully cover estimated project costs shown above primarily through a combination of FRA grants, state rail grants and required local match supplied by the Joint Rail Authority & its Operator – or from other sources. Rail projects are not federally required to be programmed on the WATS MPO TIP and are therefore not subject to overall TIP fiscal constraint requirements, however these projects are illustrated and supported in the WATS Long Range Plan to ensure a coordinated, multi-modal focus of this plan.

WATS MPO Medium Term Transportation Project Priorities

Highway and Bridge

Specific projects listed below in *italics* are carryover projects from the short term project list. Any other specific project listed with an MPMS number is a TYP or Decade of Investment project not programmed on the 2019-2022 TIP. In the medium term of this plan additional highway, bridge, and safety projects will be selected based on needs and priority on a two year cycle in coordination with the update of the TIP. Line items in this period have been created to which specific projects will be assigned in future TIP updates. All projects will be selected consistent with the goals and performance measure of this plan.

Projects

			Second Four Years (2023 - 2026)		Third Four Years (2027 - 2030)	
MPMS	Project Location	Improvement	Cost	Phases	Cost	Phases
6031	SR 4010 over Larrys Creek, Cogan House Township	Bridge Replacement	\$265,000	FD, UTL, ROW, CON	\$95,000	CON
5939	SR 284 over Flooks Run, Pine Township	Bridge Replacement	\$220,000	FD, UTL, ROW, CON	\$240,000	CON
5755	SR 1010 over Roaring Branch, Jackson Township	Bridge Improvement	\$310,000	FD, UTL, ROW, CON	\$250,000	CON
5983	SR 1005 over Plunketts Creek, Plunketts Creek Township	Bridge Replacement	\$592,000	FD, UTL, ROW, CON	\$252,000	CON
6030	SR 2061 over Beaver Run, Penn Township	Bridge Replacement	\$30,000	FD, UTL, ROW	\$352,000	CON
99034	Bridge deck overlays (multiple municipalities - 10 bridges)	Bridge Preservation	\$750,000	CON	\$750,000	CON
110167	SR 54 over West Branch Susquehanna River, Montgomery Borough	Bridge Improvement	\$1,333,000	CON	\$1,868,000	CON
93732	SR 2014 from Campbell St to US 15, City of Williamsport	Reconstruction	\$15,718,000	FD, UTL, ROW, CON	\$4,100,000	CON
98983	US 15 from Main St to Southern Ave, South Williamsport Borough	Reconstruction	\$2,598,000	PE, FD, UTL, ROW	\$12,333,000	UTL, CON
99032	SR 2004 over Tributary to Spring Creek, Washington Township	Bridge Improvement	\$108,000	CON		
99025	SR 1009 over Tributary to Blockhouse Creek, Jackson Township	Bridge Replacement	\$150,000	CON		
99035	SR 2075 over Greggs Run, Wolf Township	Bridge Replacement	\$176,000	CON		
110182	SR 1006 pver Slacks Run, Cascade Township	Bridge Improvement	\$210,000	FD, UTL, ROW, CON		
99408	SR 2083 over Lick Run, Shrewsbury Township	Bridge Rehabilitation	\$210,000	FD, UTL, ROW, CON		
5920	SR 1006 over Tributary to Wallis Run, Cascade Township	Bridge Improvement	\$230,000	PE, FD, UTL, ROW, CON		
110190	SR 2004 over Tributary to Spring Creek, Washington Township	Bridge Improvement	\$230,000	PE, FD, UTL, ROW, CON		
99383	SR 14 over Abbots Run, McIntyre Township	Bridge Rehabilitation	\$361,000	FD, UTL, ROW, CON		
97609	SR 44 over Ramsey Run, Cummings Township	Bridge Rehabilitation	\$400,000	CON		
81897	SR 2060 from Via Bella to 3rd St, City of Williamsport	Reconstruction	\$400,000	CON		

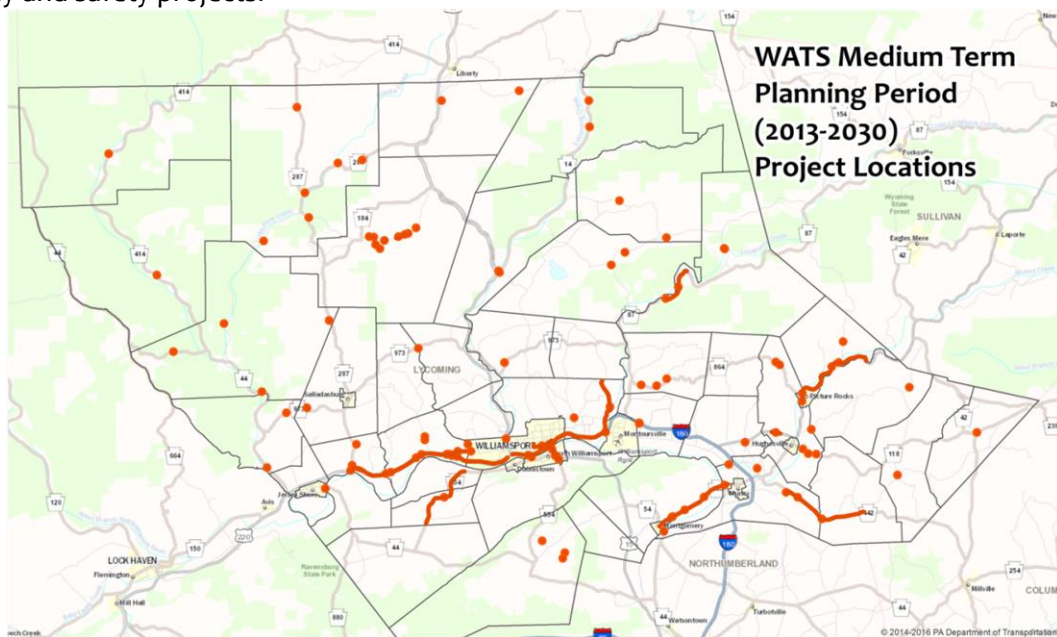
106182	Countywide Cable Guiderail Upgrade, multiple municipalities	Safety Improvement	\$450,000	UTL, CON		
106085	T-369 over Queneshukeny Run, Woodward Township	Bridge Replacement	\$531,000	FD, UTL, ROW, CON		
6085	T-836 over Trout Run, Lewis Township	Bridge Replacement	\$540,000	PE, FD, UTL, ROW, CON		
99052	SR 3010 over Larrys Creek, Piatt Township	Bridge Rehabilitation	\$810,000	FD, UTL, ROW, CON		
97623	SR 284 over Blacks Run, Pine Township	Bridge Replacement	\$860,000	FD, UTL, ROW, CON		
97632	SR 2003 over Spring Creek, Washington Township	Bridge Replacement	\$860,000	FD, UTL, ROW, CON		
99061	SR 4010 over Larrys Creek, Cogan House Township	Bridge Rehabilitation	\$914,000	FD, UTL, ROW, CON		
88743	SR 4001 over Little Pine Creek, Pine Township	Bridge Rehabilitation	\$1,042,000	CON		
99400	SR 287 over Lick Run, Pine Township	Bridge Improvement	\$1,100,000	CON		
97625	SR 287 over Larrys Creek, Cummings Township	Bridge Improvement	\$1,300,000	CON		
99226	Bridge painting (multiple bridges on I-180, multiple municipalities)	Bridge Rehabilitation	\$1,390,000	CON		
105532	I-180 from US-15 to Warrensville Rd, City of Williamsport/Loyalsock Township	Resurface	\$1,450,000	FD, CON		
106124	US-220 over Ramp A to W 4th St, Woodward Township	Bridge Improvement	\$1,560,000	CON		
87987	SR 2014 from Campbell to Basin, City of Williamsport	Reconstruction	\$8,169,000	CON		
99233	SR 14 over Red Run, McIntyre Township	Bridge Improvement	\$80,000	PE	\$560,000	FD, UTL, ROW, CON
99383	SR 14 over Abbots Run, McIntyre Township	Bridge Improvement	\$361,000	FD, UTL, ROW, CON		
6128	SR 14 over Trout Run, Lewis Township	Bridge Improvement	\$71,312	PE	\$410,000	FD, UTL, ROW, CON
110162	SR 15 over Hagermans Run, Borough of South Williamsport	Bridge Improvement	\$1,250,000	PE, CON		
97609	SR 44 over Ramsey Run, Cummings Township	Bridge Improvement	\$400,000	CON		
99348	SR 44 over Furnace Run, Watson Township	Bridge Improvement	\$317,000	PE, FD, UTL, ROW, CON	\$200,000	CON
99393	SR 44 over Upper Pine Bottom Run, Cummings Township	Bridge Improvement	\$320,000	PE, FD, UTL, ROW, CON	\$200,000	CON
98919	SR 87 from Little Bear	Highway	\$800,000	CON		

	Creek Road to Lower Manor Road, Plunketts Creek Township	Restoration				
97615	SR 87 over Little Bear Creek, Plunketts Creek Township	Bridge Improvement	\$500,000	CON		
97639	SR 118 over Gregs Run, Wolf Township	Bridge Improvement	\$60,000	PE	\$460,000	FD, UTL, ROW, CON
97654	SR 118 over Sugar Run, Wolf Township	Bridge Improvement	\$60,000	PE, FD	\$560,000	FD, UTL, ROW, CON
97658	SR 118 over Little Muncy Creek, Jordan Township	Bridge Improvement	\$41,312	PE	\$320,000	FD, CON
98990	US 220 from School St to Arch St, Woodward Township/City of Williamsport	Highway Restoration	\$20,000	PE	\$3,022,000	FD, UTL, ROW, CON
99003	US 220 from Bennett Ln to Muncy Creek, Borough of Picture Rocks/Shrewsbury Township/Penn Township	Highway Restoration	\$6,467,000	CON		
102641	US 220 between Tivoli and Glen Mawr, Shrewsbury Township	Safety Improvement	\$750,000	CON		
79249	US 220 over Wolf Run, Wolf Township	Bridge Improvement	\$80,000	PE	\$660,000	FD, UTL, ROW, CON
99352	SR 287 over Tributary to Larrys Creek, Piatt Township	Bridge Improvement	\$60,000	PE	\$360,000	FD, UTL, ROW, CON
97661	SR 405 over Tributary to Susquehanna River, Clinton Township	Bridge Improvement	\$800,000	PE, FD, UTL, ROW, CON		
99008	SR 405 from SR 54 to Brick Church Rd, Borough of Montgomery/Clinton Township	Highway Reconstruction	\$1,050,000	PE, FD, ROW	\$8,162,500	UTL, CON
99354	SR 405 over Tributary to Susquehanna River, Clinton Township/Borough of Montgomery	Bridge Improvement	\$100,000	PE, FD, UTL, ROW	\$200,000	CON
97785	SR 405 from Brick Church Rd to Susquehanna River bridge	Highway Restoration	\$500,000	CON		
99402	SR 414 over Pine Creek, McHenry Township	Bridge Improvement	\$22,000	PE	\$1,540,000	FD, UTL, ROW, CON
97663	SR 442 over Dry Run, Muncy Creek Township	Bridge Improvement	\$80,000	PE	\$660,000	FD, UTL, ROW, CON
99237	SR 973 over Mill Creek, Hepburn Township	Bridge Improvement	\$440,000	PE, FD, UTL, ROW, CON	\$300,000	CON
99051	SR 1017 over Trout Run, Lewis Township	Bridge Improvement	\$41,312	PE	\$220,000	FD, CON

99359	SR 2014 over Wolf Run, Muncy Creek Township	Bridge Improvement	\$60,000	PE	\$260,000	FD, UTL, ROW, CON
110181	SR 2015 over German Run, Franklin Township	Bridge Improvement	\$175,000	PE, FD, UTL, ROW, CON	\$75,000	CON
99337	SR 2018 over Millers Run, Loyalsock Township	Bridge Improvement	\$468,000	PE, FD, UTL, ROW, CON	\$350,000	CON
99300	SR 2039 from E 3rd St to Lick Run Rd, Loyalsock Township	Highway Restoration	\$15,000	PE	\$1,400,000	CON
97662	SR 2053 over Wolf Run, Muncy Township	Bridge Improvement	\$80,000	PE	\$460,000	FD, UTL, ROW, CON
110204	SR 2055 over Tributary to Muncy Creek, Muncy Creek Township	Bridge Improvement	\$175,000	PE, FD, UTL, ROW, CON	\$75,000	CON
99058	SR 2061 over Little Muncy Creek, Muncy Creek Township	Bridge Improvement	\$39,312	PE	\$170,000	FD, CON
110205	SR 2061 over Little Sugar Run, Wolf Township	Bridge Improvement	\$100,000	PE, FD, UTL, ROW	\$150,000	CON
110207	SR 4001 over Little Pine Creek, Cummings Township	Bridge Improvement	\$100,000	PE, FD, UTL, ROW	\$150,000	CON
110208	SR 4002 over Hughes Run, Pine Township	Bridge Improvement	\$45,000	PE	\$210,000	FD, UTL, ROW, CON
99373	SR 3013 slide repair, Woodward Township	Highway Reconstruction			\$1,300,000	CON
110180	SR 973 over Tributary to Tombs Run, Watson Township	Bridge Improvement			\$540,000	CON
97620	SR 864 over Mill Creek, Upper Fairfield Township	Bridge Improvement			\$1,100,000	CON
98932	SR 654 from Cold Water Town Rd to E Village Dr, Bastress Township/Susquehanna Township	Highway Restoration			\$1,000,000	CON
98930	SR 442 from Clarkstown Rd to Moreland Baptist Rd, Muncy Creek Township/Moreland Township	Highway Restoration			\$1,500,000	CON
6206	SR 414 over Pine Creek, Brown Township	Bridge Improvement			\$700,000	PE, FD, UTL, ROW, CON
97617	SR 284 over Bonnell Run, Pine Township	Bridge Improvement			\$1,239,000	PE, FD, UTL, ROW, CON
6000	US 220/ W 4th St Interchange	Highway Reconstruction			\$250,000	PE
6205	SR 44 over Susquehanna River, Borough of Jersey Shore/Nippenose Township	Bridge Improvement			\$1,285,000	PE, CON

94681	Jersey Shore Culvert 2, Borough of Jersey Shore	Bridge Improvement			\$2,000,000	CON
	Future highway restoration/reconstruction projects line item		\$750,000		\$1,000,000	
	Future state bridge projects line item				\$1,000,000	
	Future local bridge projects line item				\$3,372,000	
	Future safety projects line item				\$4,360,000	
	TOTAL		\$61,945,248		\$62,020,500	
<i>Financial Guidance</i>			\$62,293,000		\$62,272,000	

The WATS medium term projects consist of \$42,029,248 in bridge projects and \$71,454,500 in highway and safety projects.



Fiscal Constraint Summary

The WATS MPO relies upon PennDOT Financial Guidance to establish fiscal constraint targets for the TIP and Long Range Plan. The following table shows the anticipated funding for the medium term time frame. All projects and line items were constrained to meet these funding levels.

WATS MPO Highway / Bridge Base Funding Allocations
Based on PennDOT FFY 2023-2030 Program Financial Guidance

	Federal Fiscal Year	NHPP	STP	State Highway (Capital)	State Bridge	Off System Bridges	HSIP	TOTAL
Second Four Years (2023 - 2026)	2023	\$3,219,000	\$2,345,000	\$5,994,000	\$2,099,000	\$827,000	\$1,090,000	\$15,575,000
	2024	\$3,219,000	\$2,345,000	\$5,993,000	\$2,098,000	\$827,000	\$1,090,000	\$15,574,000
	2025	\$3,219,000	\$2,345,000	\$5,993,000	\$2,098,000	\$827,000	\$1,090,000	\$15,573,000
	2026	\$3,219,000	\$2,345,000	\$5,992,000	\$2,097,000	\$827,000	\$1,090,000	\$15,571,000
	TOTAL	\$12,876,000	\$9,380,000	\$23,972,000	\$8,392,000	\$3,308,000	\$4,360,000	\$62,293,000
Third Four Years (2027 - 2030)	2027	\$3,219,000	\$2,345,000	\$5,992,000	\$2,096,000	\$827,000	\$1,090,000	\$15,570,000
	2028	\$3,219,000	\$2,345,000	\$5,991,000	\$2,096,000	\$827,000	\$1,090,000	\$15,568,000
	2029	\$3,219,000	\$2,345,000	\$5,990,000	\$2,095,000	\$827,000	\$1,090,000	\$15,568,000
	2030	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
	TOTAL	\$12,876,000	\$9,380,000	\$23,963,000	\$8,381,000	\$3,308,000	\$4,360,000	\$62,272,000
GRAND TOTAL		\$25,752,000	\$18,760,000	\$47,935,000	\$16,773,000	\$6,616,000	\$8,720,000	\$124,565,000

Transit

Projects

Agency	Project	Year	Cost
River Valley Transit	Purchase 3 Fixed Route Buses	2023	\$2,100,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2023	\$138,000
River Valley Transit	Support Equipment	2023	\$75,000
River Valley Transit	Spare Components	2023	\$100,000
River Valley Transit	Economic/Joint Development	2023	\$1,000,000
	Streetscape		\$500,000
	Trade & Transit Center Complex		\$500,000
STEP, Inc	Purchase 10 vehicles	2023	\$484,000
STEP, Inc	Purchase 50 computer tablets	2023	\$9,517
River Valley Transit	Purchase 3 Fixed Route Buses	2024	\$2,100,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2024	\$500,000
River Valley Transit	Purchase Support Vehicles	2024	\$125,000
River Valley Transit	Support Equipment	2024	\$100,000
River Valley Transit	Spare Components	2024	\$75,000
STEP, Inc	Purchase 8 vehicles	2024	\$536,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2025	\$145,000
River Valley Transit	Support Equipment	2025	\$75,000
River Valley Transit	Spare Components	2025	\$100,000
River Valley Transit	Economic/Joint Development	2025	\$500,000
	Church Street Transportation Center		\$250,000
	Regional Transit Hubs		\$250,000
STEP, Inc	Purchase 9 vehicles	2025	\$638,000
STEP, Inc	Purchase 13 Computers	2025	\$9,100
River Valley Transit	Purchase Support Vehicles	2026	\$125,000
River Valley Transit	Support Equipment	2026	\$100,000
River Valley Transit	Spare Components	2026	\$75,000
River Valley Transit	Economic/Joint Development	2026	\$500,000
	Streetscape		\$500,000
STEP, Inc	Purchase 9 vehicles	2026	\$648,000
STEP, Inc	Purchase network switch	2026	\$1,600
STEP, Inc	Purchase phones	2026	\$7,200

River Valley Transit	Purchase 3 Fixed Route Buses	2027	\$2,300,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2025	\$152,000
River Valley Transit	Support Equipment	2027	\$75,000
River Valley Transit	Spare Components	2027	\$100,000
River Valley Transit	Economic/Joint Development	2027	\$500,000
	<i>Trade & Transit Center Complex</i>		\$500,000
STEP, Inc	Purchase 3 vehicles	2027	\$196,000
STEP, Inc	Purchase office furniture	2027	\$49,233
STEP, Inc	Purchase 50 computer tablets	2027	\$9,950
River Valley Transit	Purchase 6 Fixed Route Buses	2028	\$4,800,000
River Valley Transit	Purchase Support Vehicles	2028	\$125,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2028	\$500,000
River Valley Transit	Support Equipment	2028	\$100,000
River Valley Transit	Spare Components	2028	\$75,000
River Valley Transit	Economic/Joint Development	2028	\$500,000
	<i>Church Street Transportation Center</i>		\$250,000
	<i>Regional Transit Hubs</i>		\$250,000
STEP, Inc	Purchase 8 vehicles	2028	\$546,000
STEP, Inc	Purchase 9 office computers	2028	\$18,597
River Valley Transit	Purchase 6 Fixed Route Buses	2029	\$5,000,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2029	\$160,000
River Valley Transit	Support Equipment	2029	\$75,000
River Valley Transit	Spare Components	2029	\$100,000
River Valley Transit	Economic/Joint Development	2029	\$500,000
	<i>Streetscape</i>		\$500,000
STEP, Inc	Purchase 13 vans	2029	\$886,000
STEP, Inc	Purchase 13 Computers	2029	\$9,100
STEP, Inc	Purchase portable radio	2029	\$507
River Valley Transit	Purchase 3 Fixed Route Buses	2030	\$2,600,000
River Valley Transit	Purchase Support Vehicles	2030	\$125,000
River Valley Transit	Support Equipment	2030	\$100,000
River Valley Transit	Spare Components	2030	\$75,000
River Valley Transit	Economic/Joint Development	2030	\$500,000
	<i>Trade & Transit Center Complex</i>		\$500,000
STEP, Inc	Purchase 1 vehicle	2030	\$70,000
STEP, Inc	Purchase network switch	2030	\$1,600
Total Transit Improvements			\$30,515,404

Fiscal Constraint Summary

For both FFY 2023-2026 and FFY 2027-2030 timeframes, FFY 2022 WATS Transit TIP federal and state funding levels are assumed to remain flat and all projects shown remain within current TIP Transit funding levels. PennDOT Transit Financial Guidance for FFY 2023 and beyond was unavailable at the time this plan was prepared.

Airport

Projects

Location	Improvement	Phases	Year(s)	Cost	Funding
Williamsport Regional Airport	Expand FBO Textron Apron	All	2023	\$555,000	AIP
Williamsport Regional Airport	Expand FBO Apron	All	2024	\$555,000	AIP
Williamsport Regional Airport	Construct Unit Hangers	All	2025	\$1,200,000	ADG
Williamsport Regional Airport	Construct T Hangers	All	2026	\$1,000,000	ADG

Airport Fiscal Constraint Summary:

The capital projects for the Williamsport Regional Airport for FFY 2017-2024 have been identified and prioritized by the Williamsport Municipal Airport Authority and approved as part of the overall PennDOT Twelve Year Transportation Program aviation section and are also included on the PennDOT Bureau of Aviation, JCIP system. A total of \$ 4,421,000 in airport projects are shown for the FFY 2017-24 timeframe of this plan. Revenue levels are anticipated to fully cover estimated project costs shown above primarily from FAA Airport Improvement Program, (AIP) entitlement funding for the Williamsport Regional Airport and State Aviation Development Grants during this time period along with state and local required matching funds.

As stated earlier, airport projects are not federally required to be programmed on the WATS MPO TIP and are therefore not subject to overall TIP fiscal constraint requirements, however these projects are illustrated and supported in the WATS Long Range Plan to ensure a coordinated, multi-modal focus of this plan. The Airport Authority has not yet identified projects beyond FFY 2026.

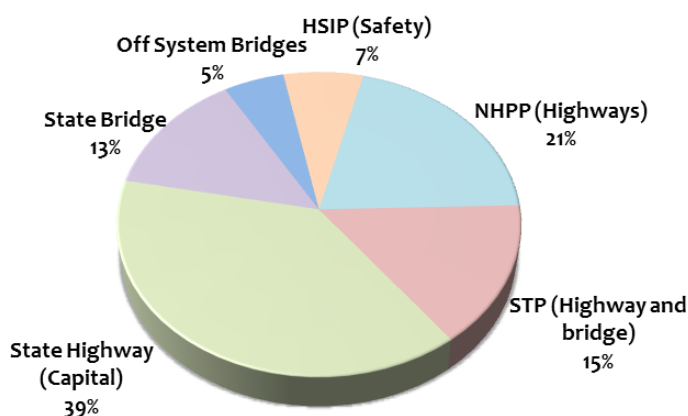
WATS MPO Long Term Transportation Project Priorities

Highway And Bridge

Projects

Specific projects in the long term are not identified. It is extremely unwise to develop a prescriptive list of projects for 13-20 years in the future at this time. Instead, specific projects for the years that are now in the long term will be programmed when firm financial guidance is available and future asset conditions and progress towards system performance goals are known and not just hazy guesses. This plan will have been updated twice by that time. Projects will be selected based on needs and priority on a two year cycle in coordination with the update of the TIP. The categories of projects selected will be based on available funding.

Projected WATS Long Term Project Categories, Based on Financial Guidance Projections



Fiscal Constraint Summary

The WATS MPO relies upon PennDOT Financial Guidance to establish fiscal constraint targets for the TIP and Long Range Plan. However, these guidelines only extend to the end of the current Twelve Year Plan timeframe. Financial guidance for the long term period of this plan (Years 13-20) were derived by extending the year 12 guidance forward with the assumption that funding levels will not increase or decrease significantly from those numbers. Since this plan assumes that since

1. the plan and project lists will be updated twice before the year 2031, and
2. the long term time frame of this plan is mostly composed of line item reserves for asset maintenance and safety projects

there will be no negative effect from extending year 12 funding levels forward another 8 years.

The following table shows the anticipated funding for the long term time frame. All projects and line items were constrained to meet these funding levels.

WATS MPO Highway / Bridge Base Funding Allocations

Based on PennDOT FFY 2023-2030 Program Financial Guidance

Federal Fiscal Year	NHPP	STP	State Highway (Capital)	State Bridge	Off System Bridges	HSIP	TOTAL
2031	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2032	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2033	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2034	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2035	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2036	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2037	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
2038	\$3,219,000	\$2,345,000	\$5,990,000	\$2,094,000	\$827,000	\$1,090,000	\$15,566,000
TOTAL	\$25,752,000	\$18,760,000	\$47,920,000	\$16,752,000	\$6,616,000	\$8,720,000	\$124,528,000

Transit

Projects

Agency	Project	Year	Cost
River Valley Transit	Purchase 2 Other Transit Vehicles	2031	\$168,000
River Valley Transit	Support Equipment	2031	\$75,000
River Valley Transit	Spare Components	2031	\$100,000
River Valley Transit	Economic/Joint Development	2031	\$500,000
	Church Street Transportation Center		\$250,000
	Regional Transit Hubs		\$250,000
River Valley Transit	Purchase 6 Fixed Route Buses	2032	\$5,400,000
River Valley Transit	Purchase Support Vehicles	2032	\$125,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2032	\$500,000
River Valley Transit	Support Equipment	2032	\$100,000
River Valley Transit	Spare Components	2032	\$75,000
River Valley Transit	Economic/Joint Development	2032	\$500,000
	Streetscape		\$500,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2033	\$177,000
River Valley Transit	Support Equipment	2033	\$75,000
River Valley Transit	Spare Components	2033	\$100,000
River Valley Transit	Economic/Joint Development	2033	\$500,000
	Trade & Transit Center Complex		\$500,000
River Valley Transit	Purchase 3 Fixed Route Buses	2034	\$2,900,000
River Valley Transit	Purchase Support Vehicles	2034	\$125,000
River Valley Transit	Support Equipment	2034	\$100,000
River Valley Transit	Spare Components	2034	\$75,000
River Valley Transit	Economic/Joint Development	2034	\$500,000
	Church Street Transportation Center		\$250,000
	Regional Transit Hubs		\$250,000
River Valley Transit	Purchase 3 Fixed Route Buses	2035	\$3,000,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2035	\$186,000
River Valley Transit	Support Equipment	2035	\$75,000
River Valley Transit	Spare Components	2035	\$100,000
River Valley Transit	Economic/Joint Development	2035	\$500,000
	Streetscape		\$500,000
River Valley Transit	Purchase 3 Fixed Route Buses	2036	\$3,100,000
River Valley Transit	Purchase Support Vehicles	2036	\$125,000
River Valley Transit	Garage & Office/CNG Facility Improvements	2036	\$500,000
River Valley Transit	Support Equipment	2036	\$100,000
River Valley Transit	Spare Components	2036	\$75,000
River Valley Transit	Economic/Joint Development	2036	\$500,000
	Trade & Transit Center Complex		\$500,000
River Valley Transit	Purchase 2 Other Transit Vehicles	2037	\$195,000
River Valley Transit	Support Equipment	2037	\$75,000
River Valley Transit	Spare Components	2037	\$100,000
River Valley Transit	Economic/Joint Development	2037	\$500,000
	Streetscape		\$250,000
	Church Street Transportation Center		\$250,000
River Valley Transit	Purchase Support Vehicles	2038	\$125,000
River Valley Transit	Support Equipment	2038	\$100,000
River Valley Transit	Spare Components	2038	\$75,000
River Valley Transit	Economic/Joint Development	2038	\$500,000
	Streetscape		\$500,000

STEP, Inc.	Vehicle Purchase/Replace	2031-2038	\$2,948,000
STEP, Inc.	Communications Equipment	2031-2038	\$112,000
STEP, Inc.	Computer Equipment	2031-2038	\$42,000
STEP, Inc.	Office Furniture	2031-2038	\$36,000
STEP, Inc.	Facility Improvements	2031-2038	\$1,700,000
Total Transit Improvement			\$26,864,000

Fiscal Constraint Summary

For both FFY 2031-2038 timeframe, FFY 2022 WATS Transit TIP federal and state funding levels are assumed to remain flat and all projects shown remain within current TIP Transit funding levels. PennDOT Transit Financial Guidance for FFY 2023 and beyond was unavailable at the time this plan was prepared.

Illustrative Projects

The following projects are not currently contained within the WATS TIP, TYP or Decade of Investment project lists. They are included here as possible future candidate projects that could be funded out of line item reserved funding in the medium and long term time periods.

Local Bridges

Note: “impending deficiency” bridges identified here have received a bridge condition rating of 5 in at least one inspection category such as the deck surface. It is expected that these bridges will become structurally deficient through normal wear and tear over the next 20 years if no preventative maintenance is completed.

Bridge Key	Location	Owner	Condition	Weight Limit
25058	T-434 (Mosquito Valley Rd) over Mosquito Creek	Armstrong Township	Structurally Deficient	
44986	T-790 (Buckhorn Rd) over Big Sandy Run	Cogan House Township	Structurally Deficient	
25069	T-541 (Old Cement Rd) over Tules Run	Fairfield Township	Structurally Deficient	
45081	T-463 (Sulky Rd) over Tributary to Laurel Run	Franklin Township	Structurally Deficient	
46333	T-463 (Sulky Rd) over Tributary to Laurel Run	Franklin Township	Structurally Deficient	
45083	T-465 (M K Rd) over German Run	Franklin Township	Structurally Deficient	
44972	T-625 (Winner Ln) over West Branch Murray Run	Gamble Township	Structurally Deficient	Posted
44968	T-872 (Mosteller Rd) over Joe Gray Run	Gamble Township	Structurally Deficient	Posted
25074	T-510 (Academy Rd) over Mill Creek	Hepburn Township	Structurally Deficient	Posted
45064	Hazel Alley over Pfouts Run	Jersey Shore Borough	Structurally Deficient	
47644	Hazel Alley over Pfouts Run	Jersey Shore Borough	Structurally Deficient	
25077	T-530 (Sheets Hill Rd) over West Branch Little Muncy Creek	Jordan Township	Structurally Deficient	Posted
46745	T-738 (Temple Rd) over Little Indian Run	Jordan Township	Structurally Deficient	
45098	T-746 (Bradley Rd) over Muncy Creek	Jordan Township	Structurally Deficient	
25081	T-506 (Upper Powys Rd) over Daugherty Run	Lewis Township	Structurally Deficient	Posted
25082	T-629 (Old Barn Rd) over Slacks Run	Lewis Township	Structurally Deficient	Posted
25083	T-836 (Truman St) over Trout Run	Lewis Township	Structurally Deficient	Posted
25086	T-856 (Lower Bodines Rd) over Slacks Run	Lewis Township	Structurally Deficient	Posted
47643	T-857 (Upper Bodines Rd) over Slacks Run	Lewis Township	Structurally Deficient	Posted
47642	T-506 (Upper Powys Rd) over Daugherty Run	Lewis Township	Structurally Deficient	
25088	Lycoming Creek Bikeway over Lycoming Creek	Loyalsock Township	Structurally Deficient	
47637	T-616 (Sheridan St) over McClures Run	Loyalsock Township	Structurally Deficient	
25065	T-615 (Snyder Rd, County Bridge 112) over Larrys Creek	Lycoming County	Structurally Deficient	Posted
25076	T-816 (County Bridge 111) over Blockhouse Creek	Lycoming County	Structurally Deficient	Posted
25096	T-665 (Pleasant Stream Rd) over Pleasant Stream	McIntyre Township	Structurally Deficient	Posted
25097	T-665 (Pleasant Stream Rd) over Pleasant Stream	McIntyre Township	Structurally Deficient	Posted
44985	T-358 (Zinck Rd) over Tributary to Larrys Creek	Mifflin Township	Structurally Deficient	
25161	Montgomery Park Rd over Adams Creek	Montgomery Borough	Structurally Deficient	Posted
25106	T-445 (Reese Rd) over Laurel Run	Moreland Township	Structurally Deficient	Posted
25107	T-638 (Bill Sones Rd) over Laurel Run	Moreland Township	Structurally Deficient	Posted
25110	T-665 (Tome Rd) over German Run	Moreland Township	Structurally Deficient	Posted
25111	T-668 (Cramner Hill Rd) over Sugar Run	Moreland Township	Structurally Deficient	Posted
25105	T-447 (Hollywood Rd) over Laurel Run	Moreland Township	Structurally Deficient	

52431	T-455 (Baylor Rd) over Laurel Run	Moreland Township	Structurally Deficient	
45118	T-509 (Old Lairdsville Rd) over Little Sugar Run	Moreland Township	Structurally Deficient	
45090	T-431 (River Rd) over Tributary to Susquehanna River	Muncy Creek Township	Structurally Deficient	
45005	T-516 (Auchmuty Rd) over Oak Run	Muncy Township	Structurally Deficient	
25120	T-557 (Bartlow Dr) over Gregs Run	Penn Township	Structurally Deficient	Posted
45091	T-559 (Frantz Rd) over Sugar Run	Penn Township	Structurally Deficient	
25123	T-654 (Fague Hill Rd) over Gregs Run	Penn Township	Structurally Deficient	
45096	T-698 (Myers Rd) over Beaver Run	Penn Township	Structurally Deficient	
25130	T-776 (English Run Rd) over English Run	Pine Township	Structurally Deficient	Posted
44983	T-776 (English Run Rd) over English Run	Pine Township	Structurally Deficient	Posted
25133	T-782 (Texas Creek Rd) over Wolf Run	Pine Township	Structurally Deficient	Posted
45068	T-392 (Valley Rd) over Tributary to Bender Run	Susquehanna Township	Structurally Deficient	
25140	T-556 (Heilman Rd) over East Mill Creek	Upper Fairfield Township	Structurally Deficient	
25142	T-384 (Gap Rd) over White Deer Hole Creek	Washington Township	Structurally Deficient	Posted
45048	T-397 (Petersburg Rd) over White Deer Hole Creek	Washington Township	Structurally Deficient	
45004	T-145 (Laurel Run Rd) over Tributary to Laurel Run	Wolf Township	Structurally Deficient	
25153	T-250 (Penn Dr) over Gregs Run	Wolf Township	Structurally Deficient	
25062	T-665 (Pleasant Stream Rd) over Potash Hollow Creek	Cascade Township	Impending Deficiency	Posted
47646	T-870 (Logue Hill Rd) over Joe Gray Run	Cascade Township	Impending Deficiency	
25160	Edgewood Ave over Mosquito Creek	Duboistown Borough	Impending Deficiency	
25068	T-847 (Sugar Camp Rd) over Mill Creek	Eldred Township	Impending Deficiency	
52433	T-688 (Teaberry Rd) over Laurel Run	Franklin Township	Impending Deficiency	
25072	T-688 (Teaberry Rd) over Laurel Run	Franklin Township	Impending Deficiency	
25073	T-708 (Harriman Rd) over Beaver Dam Run	Franklin Township	Impending Deficiency	
45086	T-740 (Old Rt 118 Rd) over Deer Run	Franklin Township	Impending Deficiency	
44970	T-691 (Trimble Rd) over Mill Creek	Gamble Township	Impending Deficiency	
44971	T-693 (Ulmer Rd) over Mill Creek	Gamble Township	Impending Deficiency	
44967	T-868 (Murray Run Rd) over East Branch Murray Run	Gamble Township	Impending Deficiency	
45087	T-489 (Klump Rd) over Tributary to Mill Creek	Hepburn Township	Impending Deficiency	
25075	T-665 (Holcomb Rd) over Blockhouse Creek	Jackson Township	Impending Deficiency	
45065	Seminary St over Pfouts Run	Jersey Shore Borough	Impending Deficiency	
45066	Thompson St over Pfouts Run	Jersey Shore Borough	Impending Deficiency	
45062	Washington Ave. over Pfouts Run	Jersey Shore Borough	Impending Deficiency	
25079	T-720 (Gordner Hill Rd) over West Branch Run	Jordan Township	Impending Deficiency	Posted
45097	T-530 (Sheets Hill Rd) over Little Indian Run	Jordan Township	Impending Deficiency	
25078	T-537 (Keller Hollow Rd) over Little Muncy Creek	Jordan Township	Impending Deficiency	
45072	T-508 (Starr Rd) over Tributary to Mill Creek	Loyalsock Township	Impending Deficiency	
45076	T-607 (Log Run Rd) over Tributary to Lycoming Creek	Loyalsock Township	Impending Deficiency	
25129	T-776 (County Bridge 113) over English Run	Lycoming County	Impending Deficiency	
25101	T-860 (County Bridge 107) over Lycoming Creek	Lycoming County	Impending Deficiency	
25103	T-562 (Woodley Hollow Rd) over Mill Creek	Mill Creek Township	Impending Deficiency	Posted
25163	West Houston Ave over Black Hole Creek	Montgomery Borough	Impending Deficiency	
45099	T-445 (Reese Rd) over Broad Creek	Moreland Township	Impending Deficiency	
45100	T-509 (Old Lairdsville Rd) over Jakes Run	Moreland Township	Impending Deficiency	
25165	Carpenter St over Glade Run	Muncy Borough	Impending Deficiency	
25167	East Mechanic St over Glade Run	Muncy Borough	Impending Deficiency	
25166	Green St over Glade Run	Muncy Borough	Impending Deficiency	
46787	T-437 (Rock Rd) over Tributary to Little Muncy Creek	Muncy Creek Township	Impending Deficiency	
45089	T-586 (Turner Hill Rd) over Tributary to Glade Run	Muncy Creek Township	Impending Deficiency	
47639	T-547 (Griggs Rd) over Carpenters Run	Muncy Township	Impending Deficiency	Posted
25122	T-652 (Grant Barto Rd) over Gregs Run	Penn Township	Impending Deficiency	Posted
25125	T-706 (Rishel Hollow Rd) over Beaver Dam Run	Penn Township	Impending Deficiency	Posted
45058	T-361 (Plank Rd) over Tributary to Larrys Creek	Piatt Township	Impending Deficiency	
45088	T-656 (Roaring Run Rd) over Roaring Run	Shrewsbury Township	Impending Deficiency	Posted
25137	T-686 (Rock Run Rd) over Rock Run	Shrewsbury Township	Impending Deficiency	Posted
25171	East 7th Ave over Hagermans Run	South Williamsport Borough	Impending Deficiency	
25170	East Central Ave over Hagermans Run	South Williamsport Borough	Impending Deficiency	
25145	T-397 (Petersburg Rd) over White Deer Hole Creek	Washington Township	Impending Deficiency	Posted
25143	T-397 (Petersburg Rd) over White Deer Hole Creek	Washington Township	Impending Deficiency	
25150	T-464 (Bob Drick Rd) over White Deer Hole Creek	Washington Township	Impending Deficiency	
25154	T-270 (Gregg Run Rd) over Gregs Run	Wolf Township	Impending Deficiency	Posted
25156	T-369 (New Rd) over Quenshukeny Run	Woodward Township	Impending Deficiency	
25157	T-375 (Turkey Path Rd) over Quenshukeny Run	Woodward Township	Impending Deficiency	

Highway, intersection, and safety

There are many locations in the county that would benefit from roadway, intersection, and/or safety improvements. The list provided below is not intended to be exhaustive or prescriptive. These areas would require extensive study before specific projects could be programmed. However, these areas

have been identified through comprehensive planning, municipal government or other public comment, or by other stakeholders as areas in need of future improvement:

- Extend Interstate 180 designation from its current terminus in Williamsport along the existing US-15 north to the New York state line in Tioga County.
- Allegheny Street (SR 44) in Jersey Shore Borough – There is a need for traffic calming and intersection improvements focused on safe pedestrian crossings. The Fountain Street and Wylie Street intersections are of particular concern.
- Fairfield Rd (SR 2045) in Fairfield Township - Fairfield Road is home to several businesses and industrial uses and provides a direct connection to I-180. There is high potential for future development.
- High St (SR 2016) in the City of Williamsport - There is a need for traffic calming and intersection improvements focused on safe pedestrian crossings.
- Little League Blvd in the City of Williamsport - There is a need for traffic calming and intersection improvements focused on safe pedestrian crossings. The intersections with Hepburn St, Pine St and Market St (SR 2023) are all of particular concern.
- Wolf Township Two Way Left Turn Lane - Design and construct center turn lane on PA 405 in Wolf and Muncy Creek Townships to address safety concerns associated with increased development along corridor.
- Develop an expanded our intermodal strategy with a focus on attracting tourists from major urban centers via various private transport service providers (for example regional point to point bus services). This strategy should also include an emphasis on improving our intermodal service at the Williamsport Airport and the Church Street bus terminal by increasing connectivity between those hubs and desirable destinations for a more seamless tourist experience.

Bikeway and Pedestrian Facility Projects

Federal and State funding allocations for bikeway and pedestrian facilities are conducted on a competitive project selection basis as the FAST Act resulted in the WATS MPO not receiving a separate Transportation Alternatives Program base allocation. Rather, since the WATS MPO is under 200,000 population, PennDOT will select projects in these MPO/RPO areas under the FAST Act Surface Transportation Block Grant Program Set-Aside (formerly Transportation Alternatives Program [TAP]).



The WATS MPO will solicit and categorize such eligible projects and transmit recommendations to PennDOT for final approval. WATS will evaluate projects on the following scale:

1. Highly recommended
2. Recommended
3. Not recommended

The evaluation will be based primarily on whether the project meets the following objectives of this plan:

- Implement the Genesee-Susquehanna Greenway Trail within Lycoming County that is more fully discussed in Chapter 3.
- Connects a community to an existing trail system.
- Improves access to existing trail facilities.
- Improves non-motorized transportation networks within downtown communities.
- Implements recommendations contained in the Lycoming County Greenways, Recreation and Open Space Plan.

The PA Department of Conservation and Natural Resources Community Conservation Grant Program will also be a state funding source under Growing Greener that can match Federal Transportation Alternative Funding and other funding sources that will be carefully evaluated as part of the overall financing packages for proposed bikeway and pedestrian facility projects within Lycoming. Again, this state funding program is competitive and no specific funding base funding allocations for Lycoming County are currently provided.



Williamsport Area Transportation Study Metropolitan Planning Organization

LONG RANGE TRANSPORTATION PLAN
2018 - 2038

APPENDICES

Appendix A – WATS Bylaws

As amended June 19, 2017

ARTICLE 1: NAME AND PURPOSE

Section 1: The name of the organization shall be the Williamsport Area Transportation Study, (WATS) Metropolitan Planning Organization, (MPO) hereinafter referred to as the WATS MPO.

Section 2: The purpose of the WATS MPO shall be to serve as the official transportation planning organization for the County of Lycoming, designated by the Governor of the Commonwealth of Pennsylvania under current and applicable federal laws and regulations. The entire geographical coverage area of the County of Lycoming, PA shall be defined as the planning area. Such federal laws and regulations establish five core functions of an MPO that include the following:

- 1) Establish a setting: Establish and manage a fair and impartial setting for effective regional decision-making in the planning area.
- 2) Identify and evaluate alternative transportation improvement options: Use data and planning methods to generate and evaluate alternatives. Planning studies and evaluations are included in the MPO Unified Planning Work Program, (UPWP).
- 3) Prepare and maintain a Metropolitan Transportation Plan: Develop and update a long range transportation plan for the planning area covering a planning horizon of at least 20 years that fosters: (1) Mobility and access for people and goods, (2) Efficient system performance and preservation, and (3) Good quality of life.
- 4) Develop a Transportation Improvement Program (TIP): Develop a short-range (four year) program of transportation improvements based on the long range transportation plan. The TIP should be designated to achieve the area's goals, using spending, regulating, operating, management and financial tools.
- 5) Involve the public: Continually involve the general public and other affected constituencies in the essential functions listed above.

ARTICLE II: MEMBERSHIP

Section 1: The parties hereby establish the governing body of the WATS MPO as the Coordinating Committee. The Coordinating Committee shall consist of eleven (11) voting members, as follows:

- PennDOT Engineering District 3-0 Executive
- PennDOT Deputy Secretary for Planning
- Lycoming County Commissioner
- Lycoming County Commissioner
- Mayor, City of Williamsport
- Council Member, City of Williamsport
- River Valley Transit General Manager
- SEDA-COG Joint Rail Authority Executive Director
- Williamsport Regional Airport Executive Director
- Lycoming County Association of Township Officials Representative

- Lycoming-Sullivan Boroughs Association Representative

The PennDOT Engineering District 3-0 Executive shall serve as Chairman of the Coordinating Committee.

The Coordinating Committee voting members shall be designated by their respective member organizations and shall serve without term limits at the discretion of their member organizations. Each member organization shall so designate the individual(s) serving on the Coordinating Committee as their voting member(s) at the beginning of each calendar year and provide written documentation to the WATS MPO Chairman for WATS MPO files maintained by the Lycoming County Planning and Community Development Department. Member organizations shall also designate an alternate voting member that may vote on behalf of the designated voting member in the case where the designated voting member is unable to attend a specific meeting.

Section 2: In addition to the 11 voting members, the Coordinating Committee shall include four (4) non-voting members, as follows:

- Federal Highway Administration
- Federal Transit Administration
- US Department of Housing and Urban Development
- PA Department of Community and Economic Development

Non-voting members of the Coordinating Committee shall receive WATS MPO reports and meeting notices and agendas, shall be entitled to participate in WATS MPO discussions, but shall serve without vote.

Section 3: The parties hereby establish a Technical Committee which shall provide recommendations to the Coordinating Committee for approval related to transportation strategies, plans and projects, using technical analysis, specialized knowledge, and citizen input on specific issues. The Technical Committee shall consist of seven (7) voting members, as follows:

- PennDOT Center for Program Development and Management Representative
- PennDOT Engineering District 3-0 Representative
- Lycoming County Planning and Community Development Director
- Lycoming County Planning Commission Member
- River Valley Transit General Manager
- Williamsport Regional Airport Executive Director
- City of Williamsport Engineer/Community Development Director

The PennDOT Center for Program Development and Management Representative shall serve as Chairman of the Technical Committee.

The Technical Committee voting members shall be designated by their respective member organizations and shall serve without term limits at the discretion of their member organizations. Each member organization shall so designate the individual serving on the Technical Committee as their voting member at the beginning of each calendar year and provide written documentation to the WATS MPO Chairman for WATS MPO files maintained by the Lycoming County Planning and Community Development Department. Member organizations shall also designate an alternate voting member that may vote on behalf of the designated member in the case where the designated voting member is unable to attend a specific meeting.

Section 4: In addition to the 7 voting members, the Technical Committee shall include four (4) non-voting members, as follows:

- Federal Highway Administration
- Federal Transit Administration
- PA Department of Community and Economic Development
- Susquehanna Transit Company

Non-voting members of the Technical Committee shall receive WATS reports and meeting notices and agendas, shall be entitled to participate in WATS discussions, but shall serve without vote.

Section 5: The WATS MPO Coordinating Committee may establish advisory committees, ad hoc work groups, special purpose task forces or steering committees to gather specialized experience, technical advice and input that may be needed to help carry forth transportation planning related activities under the jurisdiction of the WATS MPO transportation planning process.

The WATS MPO has established a Transit Advisory Committee that is comprised of WATS members, transit providers and various social service organizations to provide input and recommendations to the WATS MPO on public transit issues and needs in Lycoming County.

The WATS MPO has also established a Bicycle and Pedestrian Advisory Committee comprised of public officials and private organizations and consumers to provide input and recommendations to the WATS MPO on bicycle and pedestrian safety and mobility needs in Lycoming County.

ARTICLE III. AUTHORITY

Section 1: It shall be the duty and responsibility of the WATS MPO to direct and control the policies and objectives of the transportation planning and programming process, with due regard to the requirements and recommendations of its represented agencies of government, in order to accomplish and maintain the WATS MPO's eligibility for federal and state transportation funds, and help implement the WATS MPO Long Range Transportation Plan, Transportation Improvement Program and other plans and programs under WATS MPO responsibility.

Section 2: Actions of the WATS MPO shall be by a majority vote of designated voting members or their alternates present at a publicly held meeting and entitled to vote, provided that a quorum is present at the beginning of the meeting. For the Coordinating Committee, a voting quorum shall be met with six (6) voting members or their alternates present at the public meeting. For the Technical Committee, a voting quorum shall be met with four (4) voting members or their alternates present at the public meeting. In the event of a tie vote, the Chairman of each respective committee casts the tie-breaking vote within that committee.

Section 3: On occasions when formal actions need to be expedited without convening a public meeting, an electronic mail ballot and / or phone ballot may be conducted in accordance with the WATS MPO approved Public Participation Plan. The Lycoming County Planning and Community Development Department staff will determine the appropriateness of the voting technique used to poll WATS voting members. The result of the vote will not be considered valid until a voting majority has been obtained. All WATS voting members will be afforded five business days to review information provided and cast their vote. The Lycoming County Planning and Community Department Staff will notify all WATS voting members of the result. The voting action will be re-affirmed by vote at the next regularly scheduled WATS MPO public meeting.

Section 4: The WATS MPO may recess into executive session only for purposes authorized under the PA Open Records Act and shall be conducted in the manner prescribed by the Act.

ARTICLE IV. PROVISIONS

Section 1: Vacancies on the WATS MPO Coordinating or Technical Committees shall be filled by an appointment by the responsible member organization, as more fully discussed in Article II – Membership.

Section 2: Removal of any member, or their representative, of the WATS MPO Coordinating Committee or the Technical Committee, due to failure to attend meetings, or for other reasons, shall be at the discretion of the appointing authority. Absence from three (3) consecutive meetings or less than 50% attendance over a twelve (12) month period will result in a letter being issued by the Lycoming County Transportation Planner to the appointing authority apprising them of the situation.

ARTICLE V: ADMINISTRATIVE DUTIES

Section 1: The administrative duties of the WATS MPO shall be conducted by the Lycoming County Planning and Community Development Department. The primary staff contact for the Department on WATS MPO administrative matters shall be the Lycoming County Transportation Planner who will act as WATS Secretary.

Section 2: The Lycoming County Planning and Community Development Department shall be responsible for the following primary WATS MPO administrative duties:

- Develop and conduct all transportation planning work tasks contained in the WATS MPO approved Unified Planning Work Program contract that is executed between the County of Lycoming and PennDOT. The County of Lycoming may subcontract with the City of Williamsport to perform the Federal Transit Administration funded UPWP transit planning work tasks undertaken by River Valley Transit.
- Schedule, publicly advertise and convene all WATS MPO public meetings, as needed, in accordance with the PA Open Records Law and WATS MPO approved Public Participation Plan. All official business of the WATS MPO will take place at publicly advertised meetings to ensure opportunity for public comment. Prepare and distribute meeting agendas and related materials for review by WATS MPO members no later than 5 calendar days prior to the public meeting. Prepare meeting minutes for distribution to WATS MPO members for review no later than 15 calendar days following the public meeting. WATS MPO will generally convene public meetings on a quarterly basis (once every three months) at the Lycoming County Commissioners Board Room, Lycoming County Executive Plaza, 330 Pine Street, Williamsport, PA 17701. Exceptions as to meeting dates, times and locations may be considered in order to provide timely response to actions related to WATS MPO duties and responsibilities.
- Ensure that all WATS MPO adopted plans, programs and policies are implemented.
- The WATS MPO website will be maintained at www.lyco.org.

- All WATS MPO administrative records and files shall be maintained at the Lycoming County Planning and Community Development Department, 48 West Third Street, Williamsport, PA 17701.
- WATS MPO administrative related costs borne by the County of Lycoming and the City of Williamsport shall be reimbursable in accordance with the WATS MPO approved UPWP related contract terms and conditions executed between the County of Lycoming, PennDOT and City of Williamsport.

Appendix B – List of Acronyms

AADT: Annual Average Daily Traffic
 AASHTO: American Association of State Highway and Transportation Officials
 ACM: Agency Coordination Meeting
 ADA: Americans with Disabilities Act of 1990
 ADT: Average Daily Traffic
 ACS: American Community Survey
 AIP: Airport Improvement Program
 ALP: Airport Layout Plan
 APA: American Planning Association
 ARFF: Aircraft Rescue and Firefighting
 ARLE: Automated Red Light Enforcement
 ATCT: Air Traffic Control Tower
 BMP: Best Management Practice
 BMS: Bridge Management System
 CBD: Central Business District
 CCAP: County Commissioners Association of Pennsylvania
 CFMP: Comprehensive Freight Management Plan
 CMA: Congestion Management Agency
 CMAQ: Congestion Mitigation and Air Quality
 CMP: Congestion Management Process
 CNG: Compressed Natural Gas
 COFC: Container on Flat Car
 CSVT: Central Susquehanna Valley Transportation Project
 DCED: Department of Community and Economic Development
 DCNR: Department of Conservation and Natural Resources
 DEP: Department of Environmental Protection
 DOI: Decade of Investment
 DVMT: Daily Vehicle Miles Traveled
 ECMS: Engineering and Construction Management System
 EJ: Environmental Justice
 EMC: Emergency Management Coordinator
 ENS: Emergency Notification System
 EOC: Emergency Operations Center
 EOP: Emergency Operations Plan
 EPA: Environmental Protection Agency
 FAA: Federal Aviation Administration
 FAST: Fixing America's Surface Transportation Act
 FBO: Fixed Base Operator
 FD: Final Design
 FEMA: Federal Emergency Management Agency
 FFY: Federal Fiscal Year
 FHWA: Federal Highways Administration

FRA: Federal Railroad Administration
FTA: Federal Transit Administration
GIS: Geographic Information Systems
GWA: Greater Williamsport Alliance Planning Area
HAT: Height Above Terrain
HOP: Highway Occupancy Permit
HPMS: Highway Performance Monitoring System
HSIP: Highway Safety Improvement Program
ILS: Instrument Landing System
ISTEA: Intermodal Surface Transportation Efficiency Act
IRI: International Roughness Index
ITE: Institute of Transportation Engineers
ITS: Intelligent Transportation System
JACIP: Joint Automated Capital Improvement Program
JRA: Joint Rail Authority (SEDA-COG)
LCPC: Lycoming County Planning Commission
LEP: Limited English Proficiency
LOLD: Letter of Local Determination
LOS: Level of Service
LPN: Linking Planning & NEPA
LRTP: Long Range Transportation Plan
LTAP: Local Technical Assistance Program
LUTED: Land Use, Transportation, and Economic Development
LVRR: Lycoming Valley Railroad
MALSR: Medium Intensity Approach Lighting System
MAP-21: Moving Ahead for Progress in the 21st Century Act
MATP: Medical Assistance Transportation Program
MLF: Municipal Liquid Fuels Program
MOU: Memorandum of Understanding
MPC: Municipalities Planning Code
MPMS: Multimodal Project Management System
MPO: Metropolitan Planning Organization
MSA: Metropolitan Statistical Area
MTF: Multimodal Transportation Fund
NACTO: National Association of City Transportation Officials
NAICS: North American Industry Classification System
NBIS: National Bridge Inspection Program
NEPA: National Environmental Policy Act
NHPP: National Highway Performance Program
NHS: National Highway System
NIMS: National Incident Management System
NPIAS: National Plan of Integrated Airport Systems
NPS: Nonpoint Source
NWI: National Wetlands Inventory

OPI: Overall Pavement Index
 P3: Public Private Partnership
 PAC: Program Advisory Committee
 PAPI: Precision Approach Indicators
 PAT: Planning Advisory Team
 PCT: Pennsylvania College of Technology
 PE: Preliminary Engineering
 PEMA: Pennsylvania Emergency Management Agency
 PennDOT: Pennsylvania Department of Transportation
 PHMC: Pennsylvania Historical & Museum Commission
 PNDI: Pennsylvania Natural Diversity Inventory
 PPP: Public Participation Plan
 PSAB: Pennsylvania State Association of Boroughs
 PSATS: Pennsylvania State Association of Township Supervisors
 PSP: Pennsylvania State Police
 PUC: Pennsylvania Public Utility Commission
 RLR: Rail Line Relocation and Improvement
 RMS: Roadway Management System
 ROP: Regional Operations Plan
 ROW: Right of Way
 RPO: Rural Planning Organization
 RRIF: Railroad Rehabilitation & Improvement Financing
 RTAP: Rail Transportation Assistance Program
 RVT: River Valley Transit
 SAFETEA-LU: Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A Legacy For Users
 SD: Structurally Deficient
 SEDA-COG: Susquehanna Economic Development Association Council of Governments
 SHSP: Strategic Highway Safety Plan
 SOV: Single Occupancy Vehicle
 STAMPP: Systematic Techniques to Analyze and Manage PA Pavements
 STC: State Transportation Commission
 STIP: Statewide Transportation Improvement Program
 STP: Surface Transportation Program
 TAP: Transportation Alternatives Program
 TEA-21: Transportation Equity Act for the 21st Century
 TIA: Transportation Impact Assessment
 TIGER: Transportation Investment Generating Economic Recovery Discretionary Grants Program
 TIS: Transportation Impact Study
 TIP: Transportation Improvement Program
 TMA: Transportation Management Area
 TMDL: Total Maximum Daily Load
 TOFC: Trailer on Flat Car
 TRB: Transportation Research Board
 TSA: Transportation Security Administration

TSMO: Transportation System Management & Operations

TYP: Twelve-Year Program

UPWP: Unified Planning Work Program

USDOT: United States Department of Transportation

VASI: Visual Approach Slope Indicators

VMT: Vehicle Miles Traveled

WATS: Williamsport Area Transportation Study

Appendix C – Resources Consulted

- Federal Emergency Management Agency. [Map Service Center](#). (2018)
- Lycoming County Department of Planning and Community Development. [Lycoming County Comprehensive Plan](#). (2018)
- Lycoming County Department of Planning and Community Development. [Recreation, Parks, Open Space & Greenway Plan](#). (2008)
- Lycoming County Department of Planning and Community Development. [Lycoming County Hazard Mitigation Plan](#). (2015)
- Northern Tier Regional Planning & Development Commission. [Long Range Transportation Plan](#). (2015)
- Outdoor Industry Association. [Outdoor Recreation Economy Report](#). (2017)
- PennDOT Center for Program Development and Management. [Pub 575 - Developing Regional Long Range Plans](#). (2010)
- PennDOT. [PA On Track – Statewide Long Range Transportation Plan](#). (2016)
- PennDOT. [Strategic Highway Safety Plan](#). (2017)
- PennDOT. [Comprehensive Freight Movement Plan](#). (2016)
- PennDOT. [Open Data Portal](#). (2018)
- PennDOT. [Pub 600 – Pennsylvania Highway Statistics](#). (2018)
- PennDOT. [Pub 662 – Improving the Land Use-Transportation Connection Through Local Implementation Tools](#). (2010)
- Pennsylvania Department of Environmental Protection. [Open Data Portal](#). (2018)
- Pennsylvania Department of Conservation and Natural Resources. [Open Data Portal](#). (2018)
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- SEDA-COG. [Long Range Transportation Plan](#). (2016)
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- United States Census Bureau. [American FactFinder](#). (2018)
- United States Department of Agriculture, National Agricultural Statistics Service. [Census of Agriculture](#). (2018)

- United States Department of Transportation, Federal Highways Administration. [Intermodal Surface Transportation Efficiency Act of 1991 Information](#). (2018)
- United States Department of Transportation, Federal Highways Administration. [TEA-21](#). (2018)
- United States Department of Transportation, Federal Highways Administration. [SAFETEA-LU](#). (2018)
- United States Department of Transportation, Federal Highways Administration. [MAP-21](#). (2018)
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- United States Department of Transportation, Federal Highways Administration. [Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation](#). (2005)
- United States Department of Transportation, Federal Highways Administration. [Planning for Transportation Systems Management and Operations Within Corridors: A Desk Reference](#). (2016)
- United States Department of Transportation, Federal Highways Administration. [Best Planning Practices: Metropolitan Transportation Plans](#). (2012)
- United States Department of Transportation, Federal Highways Administration. [Performance Based Planning and Programming Guidebook](#). (2013)
- United States Department of Transportation, Federal Highways Administration. [Model Long-Range Transportation Plans: A Guide for Incorporating Performance-Based Planning](#). (2014)
- United States Department of Transportation, Federal Highways Administration. [Metropolitan Pedestrian and Bicycle Planning Handbook](#). (2017)
- University of Minnesota. [IPUMS National Historical Geographic Information System](#). (2018)

Appendix D – Public Notices

10/25/2018

<https://www.publicnoticepa.com/DetailsPrint.aspx?SID=ptdsthvxsfz1vr2xhcasjn&ID=1739939>
Williamsport Sun-Gazette

Publication Name:
Williamsport Sun-Gazette

Publication URL:
[sugazette.com](http://sungazette.com)

Publication City and State:
Muncy, PA

Publication County:
Lycoming

Notice Popular Keyword Category:

Notice Keywords:
lrtp wats

Notice Authentication Number:
201810251015596757746
3634996265

Notice URL:

[Back](#)

Notice Publish Date:
Tuesday, October 16, 2018

Notice Content

PUBLIC NOTICE Draft Lycoming County Long Range Transportation Plan The Williamsport Area Transportation Study (WATS) Metropolitan Planning Organization (MPO) has prepared the Draft Long Range Transportation Plan for Lycoming County. This plan provides an overall assessment of the multi-modal transportation system serving Lycoming County. The plan also proposes specific performance measures and strategic investments to be undertaken during the next 20 years (2018-2038) in order to maintain the transportation system in a good state of repair, and ensure efficient and safe operation while preserving the environment and supporting economic development. This draft transportation plan is being made available to the general public, local governments, and other interested parties for the opportunity to review and provide comments during a 45 day period beginning October 18th and ending on December 2nd, 2018. The County's draft plan can be viewed online at www.lyco.org/lrtp. Two public meetings will be convened in order to formally present the plan and provide the opportunity for public comment. The 1st opportunity will be at the Lycoming County Commissioners regularly scheduled meeting on November 1, 2018 at 10:00 AM. The 2nd opportunity will be at the Lycoming County Planning Commission's regularly scheduled meeting on Thursday, November 15, 2018 at 6:00 PM. Both meetings are located at the Lycoming County Executive Plaza, First Floor Commissioners Board Room, 330 Pine Street, Williamsport, PA 17701. The WATS Coordinating Committee will also convene a public meeting at this same location on December 17, 2018 beginning at 1:00 PM to consider final adoption of this transportation plan. WATS is committed to compliance with the nondiscrimination requirements of civil rights statutes, executive orders, regulations, and policies applicable to the programs and activities it administers. Accordingly, WATS is dedicated to ensuring that program beneficiaries receive public participation opportunities without regard to race, color, national origin, sex, age, disability or economic status. The meeting location is accessible to persons with disabilities and is reachable by public transit conveniently located at the River Valley Transit hub located at the Williamsport Trade and Transit Centre, 144 West Third Street, Williamsport, PA 17701. WATS will provide auxiliary services for individuals with language, speech, sight or hearing impediments provided the request for assistance is made seven days prior to the meeting. WATS will attempt to satisfy other requests as it is able. Please make your request for auxiliary services to Mark R. Murawski, Lycoming County Planning Commission, 48 West Third Street, Williamsport, PA 17701, telephone number (570) 320-2138; fax number (570) 320-2135; email address: mark.murawski@lyco.org. Persons may also submit written comments about this plan to Mr. Murawski at the above-contact information beginning on October 18th and ending on December 2nd 2018.

[Back](#)

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1/2

12/13/2018

<https://www.publicnoticepa.com/DetailsPrint.aspx?SID=0qxr0otm05r0t0p0emrhz4hp&ID=1772451>**Williamsport Sun-Gazette**

Publication Name:
Williamsport Sun-Gazette

Publication URL:
sungazette.com

Publication City and State:
Muncy, PA

Publication County:
Lycoming

Notice Popular Keyword Category:

Notice Keywords:
WATS LRTP

Notice Authentication Number:
201812131340375451441
3634996265

Notice URL:

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Notice Publish Date:

Wednesday, November 07, 2018

Notice Content

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[Back](#)

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1/2

12/13/2018

<https://www.publicnoticepa.com/DetailsPrint.aspx?SID=0qxr0otm05r0otpemrfuz4hp&ID=1801124>**Williamsport Sun-Gazette**Publication Logo
Unavailable**Publication Name:****Williamsport Sun-Gazette****Publication URL:**sungazette.com**Publication City and State:****Muncy, PA****Publication County:****Lycoming****Notice Popular Keyword Category:****Notice Keywords:****WATS technical committee****Notice Authentication Number:****201812131345270470326
3634996265****Notice URL:**[Back](#)**Notice Publish Date:****Monday, November 26, 2018****Notice Content**

PUBLIC MEETING NOTICE There will be a special public meeting convened by the Williamsport Area Transportation Study, (WATS) Technical Committee to be held on December 3, 2018 beginning at 10:00 AM in the Lycoming County Executive Plaza Building, Commissioners First Floor Board Room, 330 Pine Street, Williamsport, PA 17701. The main purpose of this special meeting will be to provide a summary presentation on the draft 2018-2038 WATS Long Range Transportation Plan Update and provide the general public with the formal opportunity to provide comments on this plan. (This meeting is being rescheduled due to inclement weather that led to the cancellation of the originally scheduled WATS Long Range Plan public presentation at the Lycoming County Planning Commission meeting on November 15, 2018.) The WATS Long Range Plan public comment period is also being extended to December 7, 2018. Immediately following this WATS special public meeting, the WATS Technical Committee will convene their regular public meeting at 10:30 AM (on the same day and location) to conduct regular WATS business. WATS is committed to compliance with the nondiscrimination requirements of civil rights statutes, executive orders, regulations, and policies applicable to the programs and activities it administers. Accordingly, WATS is dedicated to ensuring that program beneficiaries receive public participation opportunities without regard to race, color, national origin, sex, age, disability or economic status. The meeting location is accessible to persons with disabilities and is reachable by public transit conveniently located at the River Valley Transit hub located at the Williamsport Trade and Transit Centre, 144 West Third Street, Williamsport, PA 17701. WATS will provide auxiliary services for individuals with language, speech, sight or hearing impediments provided the request for assistance is made seven days prior to the meeting. WATS will attempt to satisfy other requests as it is able. Please make your request for auxiliary services to Mark R. Murawski, Lycoming County Planning Commission, 48 West Third Street, Williamsport, PA 17701, telephone number (570) 320-2138; fax number (570) 320-2135; email address: mmurawski@lyco.org. If you believe you have been denied participation opportunities, or otherwise discriminated against in relation to the programs or activities administered by WATS, you may file a complaint using the procedures provided in our complaint process document or by contacting Mr. Murawski at Lycoming County Planning Commission, 48 West Third Street, Williamsport, PA 17701, telephone number (570) 320-2138; fax number (570) 320-2135; email address: mmurawski@lyco.org.

[Back](#)<https://www.publicnoticepa.com/DetailsPrint.aspx?SID=0qxr0otm05r0otpemrfuz4hp&ID=1801124>

1/1

Appendix D – Summary of Public Comments

Comment No. 1: Update Page Chapter 3, Page 70 to include the date of adoption for the Jersey Shore Borough Active Transportation Plan.

Action Taken: The following text was added in Chapter 3, Page 70. “The Jersey Shore Active Transportation Plan was adopted on June 11, 2018 by the Jersey Shore Borough Council.”

Comment No. 2: On pg 68 the map shows only the City designated Bike Routes and that is certainly logical - however the Plan narrative refers to the Millers Run Greenway - so that needs a map to show the route and connections to key recreational and school facilities.”

Action Taken: A map of the Miller’s Run Greenway has been inserted in Chapter 3, Page 68.

Comment No. 3: “On p 67 there is an edit needed - see red text below:

... adoption by City Council of an official map of routes recommended for priority in any future efforts to expand bicycle infrastructure in the city. At the same time, Council adopted a suite of ordinance amendments recommended by the committee to make city planning, zoning, and streets ordinances align with Complete Streets principles...

Action Taken: The suggested edits were made in Chapter 3, Page 67.

Comment No. 4: I note on the part re the JRA that the RFP is stated as before the Court as of Oct 2017. Correction - I believe it is still in a Court proceeding.

Action Taken: The following edit (underlined) was made in Chapter 3, Page 57. The process is contested and as of December 2018, the matter is before the Commonwealth Court.

Comment No. 5: Add PA 554 to the Scenic Byway map.

Action Taken: Comment was reviewed. Chapter 3, Page 6 contains a Scenic Byway Corridor map. PA 554 is highlighted as a potential candidate for this designation. The MPO staff believes that adequate information pertaining to this topic is already contained in the plan and no change will be made.

Comment No. 6: I believe US 15 South should be shown as a freight corridor.

Action Taken: Comment was reviewed. The information and mapping shown in Chapter 3, Page 24, was produced by FHWA itself. Although it is acknowledged that US 15 South is an actively utilized corridor for freight traffic – it is not officially designated as a “Major Freight Corridor.” The MPO staff believes that the information in the plan is correct and no change will be made.

Comment No. 7: Add an image depicting the new layout of the airport property.

Action Taken: The MPO staff did reach out to the Airport Authority for a copy of the proposed site plan, but none was readily available. Schematic layouts of the new terminal are shown in Chapter 3, Page 45 Furthermore, Chapter 3, Page 52 does display an architectural elevation of the new airport terminal and reconfigured parking area.