Long-Range Transportation Plan 2013-2032

Franklin County, Pennsylvania

Table of Contents

Summary **4**

Background **6**

Introduction **6**

What is an MPO? **7**

Franklin County Rural/Metropolitan Planning Organization 8

What is the LRTP? **10**

Franklin County LRTP Planning Process 12

Public Participation **15**

Environmental Justice 16

Tribal Consultation 17

Plan Goals and Performance Measures **18**

LRTP Goals and Objectives **18**

Coordination with Other Plans 19

Performance Measures **21**

Bridge and Pavement Performance Measures 21

MPO and LRTP Performance Measures 22

Asset Management **25**

System Overview **27**

Highlights **27**

Highway and Bridge **30**

Overview 30

Issues and Opportunities 30

Inventory 32

Trends 50

Freight **56**

Overview 56

Issues and Opportunities 56

Inventory 57

Trends 60

Transit and Ridesharing **61**

Overview 61

Issues and Opportunities 63

Inventory 65

Trends 69

Non-Motorized **72**

Overview 72

Issues and Opportunities 74

Inventory 76

Trends 80
Aviation 81
Overview 81
Issues and Opportunities 81
Inventory 81
Trends 82
Environmental Resources 84
NEPA 85
Potential Mitigation Measures 85
Land Use Management 87
Security and Evacuation Plan 87
Air Quality 88
Action Plan 89
Planning Strategies 89
Transportation Improvements 90
Highway and Bridge 90
Freight 101
Transit and Ridesharing 101
Non-Motorized 102
Aviation 103
Transportation Funding 105
Introduction 105
Unified Planning Work Program (UPWP) 105
Transportation Improvement Program (Years 1-4) 105
Other Funding Sources 108
Acronyms 110

Appendices (provided separately)

Appendix A: MPO Members

Appendix B: Public Participation

Appendix C: 2011 Performance Measures Annual Report

Appendix D: I-81 Point of Access Study

Appendix E: Traffic Signal Summary

Appendix F: State Bridge Information

Appendix G: Local Bridge Information

Appendix H: Franklin County 12-Year Program

Summary

What is the LRTP and who was involved?

Together, the Franklin County LRTP and the county's comprehensive plan, *Franklin County, PA—Forward*, establish a regional vision for the future and the necessary action steps to get there.

The LRTP serves as the transportation element of the county comprehensive plan, and identifies existing and potential future transportation improvement needs. It includes an inventory of the different modes of travel and identifies issues, opportunities, and trends that may influence transportation in Franklin County over the next 20 years. The LRTP includes an action plan and performance measures to guide successful implementation.

The LRTP was developed under the direction of the Franklin County Metropolitan Planning Organization (the decision-making body for transportation planning and programming activities throughout the county), the LRTP advisory committee, and the Franklin County Planning Commission.

What are Franklin County's transportation goals?

Eight overarching goals were developed through the planning process to help focus and prioritize improvements in the county, consistent with current federal transportation legislation (MAP-21):

1. Emphasize the preservation of the existing transportation system.
2. Encourage an integrated transportation and land use planning process throughout Franklin County.
3. Increase the safety and security of the transportation system for motorized and non-motorized users.
4. Support the economic vitality of the metropolitan area.
5. Increase the accessibility and mobility options available to people and for freight.
6. Promote efficient system management and operation.
7. Enhance the integration and connectivity of the transportation system.
8. Protect and enhance the environment.

How will the plan be implemented?

The Action Plan section of the LRTP identifies planning strategies and specific projects and initiatives for each mode that will help achieve the county's goals. Certain projects are expected to be undertaken in the near term (within the next six years), while other efforts will come to fruition in the mid-term (7 to 12 years) or long term (13 to 20 years from now).

Most projects will be implemented in partnership with other entities, such as municipal governments (for projects such as traffic signal upgrades), our state and federal funding

partners (such as PennDOT and the Federal Highway Administration), and the private sector (especially for freight and land use initiatives).

Developing and adopting this long-range transportation plan enables Franklin County to direct available funding to the transportation projects that will produce the most value for our residents and businesses, focusing our collective efforts on achieving our shared vision for Franklin County.

Background

Introduction

Franklin County is a rural county in South Central Pennsylvania. The county, which covers 772 square miles (494,080 acres), is home to nearly 150,000 residents. The majority of residents live within or directly surrounding Chambersburg Borough, the county seat. Franklin County's geographic location and transportation network (which includes portions of Interstate 81 and the Pennsylvania Turnpike) contribute to accessibility and mobility for people and freight to several surrounding larger metropolitan areas in Pennsylvania and Maryland.

The county population increased 15.7 percent between 2000 and 2010. Based on existing trends, it could increase between 8 percent and 16 percent by 2025. As a reflection of growth in population, the number of households is projected to increase by 13,000 to 19,000 households. Franklin County has an aging population similar to the surrounding region and throughout Pennsylvania. In 2010, the median age was 40.1 and 16.5 percent of the population was 65 years of age or older. Between 2000 and 2010, the percent of population younger than 54 years of age declined slightly, while the number of residents age 55 and above increased. These aging trends are consistent with age patterns observed at the regional and state level.[1]

Together, the Franklin County Long-Range Transportation Plan (LRTP) and the county's comprehensive plan, *Franklin County, PA—Forward*, establish a regional vision and strategic path which directly impacts the future quality of life for those who live, work, and play throughout the following 7 boroughs and 15 townships:

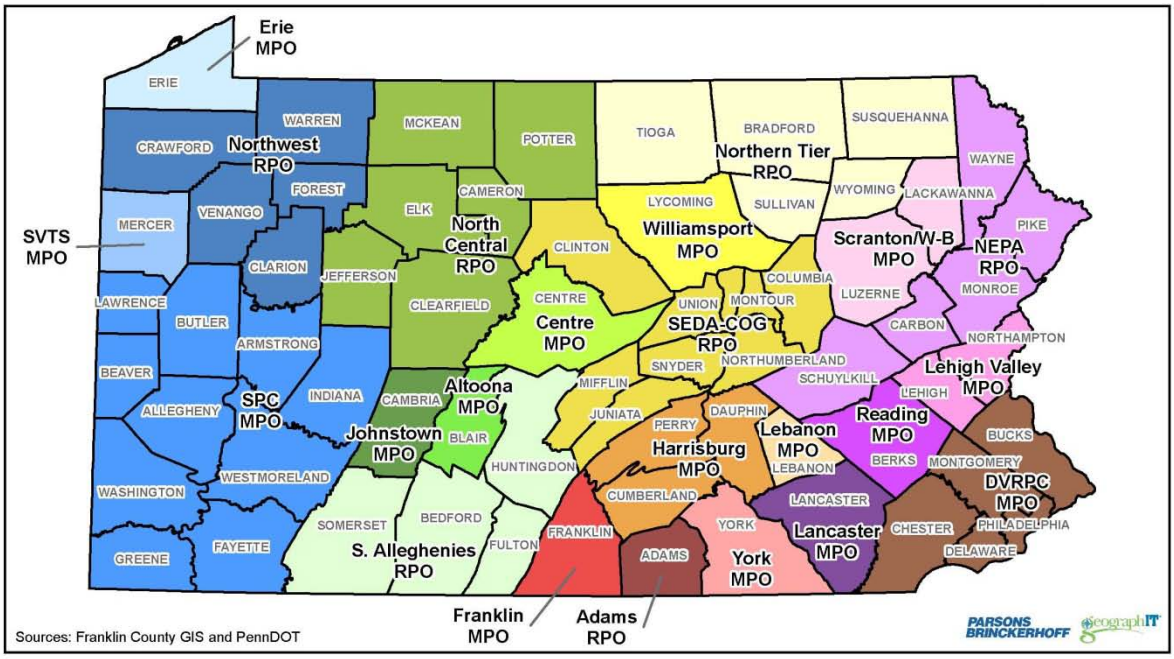
Antrim Township
Chambersburg Borough (county seat)
Fannett Township
Greencastle Borough
Greene Township
Guilford Township
Hamilton Township
Letterkenny Township
Lurgan Township
Mercersburg Borough
Metal Township
Mont Alto Borough
Montgomery Township
Orrstown Borough
Peters Township
Quincy Township
Southampton Township
Shippensburg Borough (partial)
St. Thomas Township
Warren Township
Washington Township
Waynesboro Borough

[1] Franklin County Market Analysis, Prepared For Environmental Planning & Design, LLC, 4WARD PLANNING, January 7, 2011

What is an MPO?

A Metropolitan Planning Organization (MPO) is a transportation policy-making and decision-making entity made up of community members representing transportation and business interests, and local and state governments. MPOs are mandated to implement the metropolitan transportation planning process outlined in the federal transportation regulations (23 USC 134 and 49 USC 5303). The Federal Aid Highway Act of 1962 states that the establishment of an MPO must occur in response to the designation of a new urbanized area (UA)—population greater than 50,000 and population density of 1,000 people or more per square mile based on the U.S. decennial census. There are currently 17 MPOs in Pennsylvania. The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) required states to establish a transportation planning process for areas outside of the urbanized boundaries. In Pennsylvania, the non-metropolitan areas are covered by RPOs which function with the same status and similar structure as MPOs (Figure 1: Pennsylvania MPOs and RPOs). Chambersburg was one of 36 new urbanized areas nationwide identified by the 2010 U.S. Census, and therefore the Franklin County MPO transitioned from RPO to MPO status by resolution adopted in May 2013.

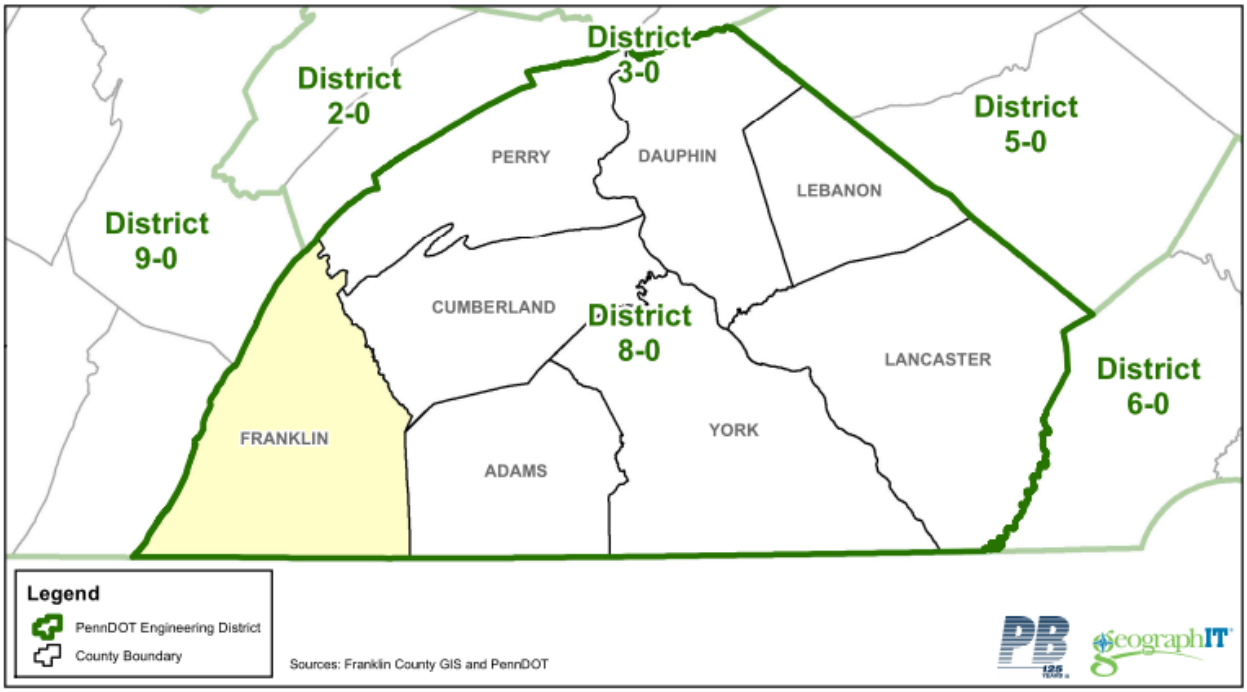
Figure 1: Pennsylvania MPOs and RPOs



Franklin County Rural/Metropolitan Planning Organization

The Franklin County Rural Planning Organization (RPO), formed in May 2009, provided guidance on the development of this Long-Range Transportation Plan (LRTP). The purpose of the former RPO and the newly established Franklin County MPO is to guide decision-making for transportation planning and programming activities throughout Franklin County (Figure 2: Franklin County and PennDOT District 8-0). The MPO is staffed by the Franklin County Planning Commission (FCPC) and Pennsylvania Department of Transportation (PennDOT) District 8-0 and is responsible for preparing a LRTP, developing an annual unified planning work program (UPWP), and managing the transportation improvement program (TIP). The UPWP is developed each year to identify work tasks that the Franklin County MPO will accomplish to meet the goals and objectives outlined in the LRTP. The TIP is a capital funding program which contains all surface transportation projects eligible for federal funding and programmed for implementation over the next four years. The Franklin County MPO currently receives approximately $11.8 million annually to advance transportation improvement projects throughout the region.

Figure 2: Franklin County and PennDOT District 8-0



The RPO was comprised of the Advisory and the Policy boards. The Advisory Board provided planning and technical support for the Policy Board—the authorizing, decision-making entity. The Advisory and Policy boards represented the county, PennDOT, local government, private industry, and other special interests. The Policy Board held publicly advertised meetings every three months. The current Franklin County MPO consists of a Policy Board to make transportation-related decisions for the region. The members of the MPO Board are provided in Appendix A.

The following individuals were members of the RPO at the time of developing this inaugural LRTP.

RPO Advisory Board Members:

Kerry Bumbaugh, *Quincy Township*
Larry Camp, *resident*
Jason Cohen, *Borough of Mercersburg*
C. Glenn Edgin, *resident*
Kevin Grubbs, *Borough of Waynesboro*
C. Lamar Hollar, *resident*
Dod Kiama, *resident*
John Kohler, Jr., *resident*
Richard Lawyer, *JLG Transportation Logistics*
David Mackley, *Franklin Area Development Corporation*
Craig Musser, *resident*
Andy Paszkowski, *Greene Township*
Frank Stern, *St. Thomas Township*
Odessa Trinkle, *Franklin County Transportation*
Samuel Worley, *resident*

RPO Policy Board Voting Members:

Robert Thomas, *RPO Chairman, Franklin County Commissioner*
Judith Chambers, *Penn State Extension*
Michael Christopher, *Washington Township*
Samuel Cressler, *Southampton Township*
David Keller, *Franklin County Commissioner*
William McLaughlin, *Borough of Chambersburg*
Meribeth Raves, *PennDOT Central Office*
Charles Sioberg, *Martin & Martin Engineering, Inc.*
Dennis Sloand, *PennDOT District 8-0*
John Van Horn, *Letterkenny Industrial Development Authority*
Robert Ziobrowski, *Franklin County Commissioner*

RPO Policy Board Ex-Officio Members:

Honorable Richard Alloway, *Senate District 33*
Justin Batiuk, *PennDOT District 8-0*
Honorable Robert Casey, *United States Senate*
Honorable Bob Kauffman, *State Representative, 89th District*
John Kennedy, *PennDOT District 8-0*
Honorable Mark Keller, *State Representative, 86th District*
Jim Arey, *PennDOT Central Office*
Honorable Dan Moul, *State Representative, 91st District*
Honorable Todd Rock, *State Representative, 90th District*
Honorable Bill Shuster, *9th Congressional District of PA*
Kathy Dimpsey, *FHWA*

What is the LRTP?

The LRTP is the guiding policy plan from which the TIP and UPWP for an MPO or RPO are developed. The plan advances the overall movement of people and goods for the region and identifies existing conditions, trends, and transportation needs and opportunities for the next 20 years. The LRTP considers the interrelated nature of transportation and land use decisions and their potential impacts within the region—impacts to the community, economy, and environment. The LRTP is to be updated every four years in order to reflect important changes in transportation, population, and land use trends that may impact the county's future.

The Franklin County LRTP is the county's primary policy document for making transportation decisions that will influence the region's future. This plan is the inaugural LRTP for the MPO and sets forth the foundation for future transportation investments throughout the county. The plan inventories and assesses current land use, traffic patterns, and operations of all transportation modes in the county, and identifies needed improvements to the existing transportation system—highway/bridge, rail, air, and bicycle/pedestrian facilities—for the next 20 years.

This long-range transportation plan also serves as the transportation element of the Franklin County Comprehensive Plan (Figure 3: The County Comprehensive Plan and the LRTP). The LRTP meets the eight federal planning factors that were established by the *Moving Ahead for Progress in the 21st Century Act* (MAP-21)—the federal transportation authorization legislation passed in July 2012, and successor to the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU). Future updates to the LRTP must comply with MAP-21 (or the transportation authorization legislation in effect at that time).

MAP-21 guides the transportation planning and programming processes for all states and MPOs throughout the country. The eight planning factors of MAP-21 are:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility of people and for freight.
- 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.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.

Figure 3: The County Comprehensive Plan and the LRTP

As the transportation element of the county's comprehensive plan, the LRTP must also meet the requirements of the Pennsylvania Municipalities Planning Code (MPC). Article III of the MPC requires that the comprehensive plan include *"a plan for the movement of people and goods, which may include expressways, highways, local street systems, parking facilities, pedestrian and bikeway systems, public transit routes, terminals, airfields, port facilities, railroad facilities, and other similar facilities or uses."*

Franklin County LRTP Planning Process

The LRTP process was initiated in June 2011 and the RPO Policy Board established an Advisory Committee to help shape and guide the development of this plan. This committee, which included the following individuals and represented varied interests, generally met on a regular, bi-monthly basis starting in July 2011.

LRTP Advisory Committee Members:

- Robert Thomas, *Franklin County Commissioner and Chairman of RPO*
- Judy Chambers, *Pennsylvania State University Extension Agent*
- David Mackley, *Franklin County Area Development Corporation*
- Mike Christopher, *Washington Township Manager*
- Sam Cressler, *Southampton Township Supervisor*
- Brad Graham, *Antrim Township Administrator*
- Joel Fridgen, *Greencastle-Antrim Chamber of Commerce*
- George Pomeroy, *Shippensburg University Professor*
- Larry Camp, *RPO Advisory Board Member*
- Barry Drexler, *Greater Chambersburg Partnership*
- Stacy Gregson, *Senator Alloway's Office*
- Phil Wolgemuth, *Chambersburg Borough Planner*
- Del Martin, *WCN Properties (Freight & Logistics)*
- Greg Cook, *Guilford Township Supervisors (Chairman)*
- John Van Horn, *Cumberland Valley Business Park*

The Advisory Committee meetings were supplemented by participation in the regular RPO Policy Board meetings throughout the process, and periodic input provided to the Franklin County Council of Governments (COG) to secure local municipal input into the planning process beyond the municipal members of the RPO Board.

The meetings of the Advisory Committee and Policy Board generally focused on individual modes to facilitate development of a truly multimodal LRTP. As such, there were meetings specifically focused on highway/vehicular travel, freight movement, transit, non-motorized travel, and aviation. In addition, midway through the planning process it became clear that reducing congestion and improving air quality through enhanced management of the traffic signals throughout the county was a key priority, so there was a focused planning effort targeting this issue which included a series of meetings throughout Summer 2012.

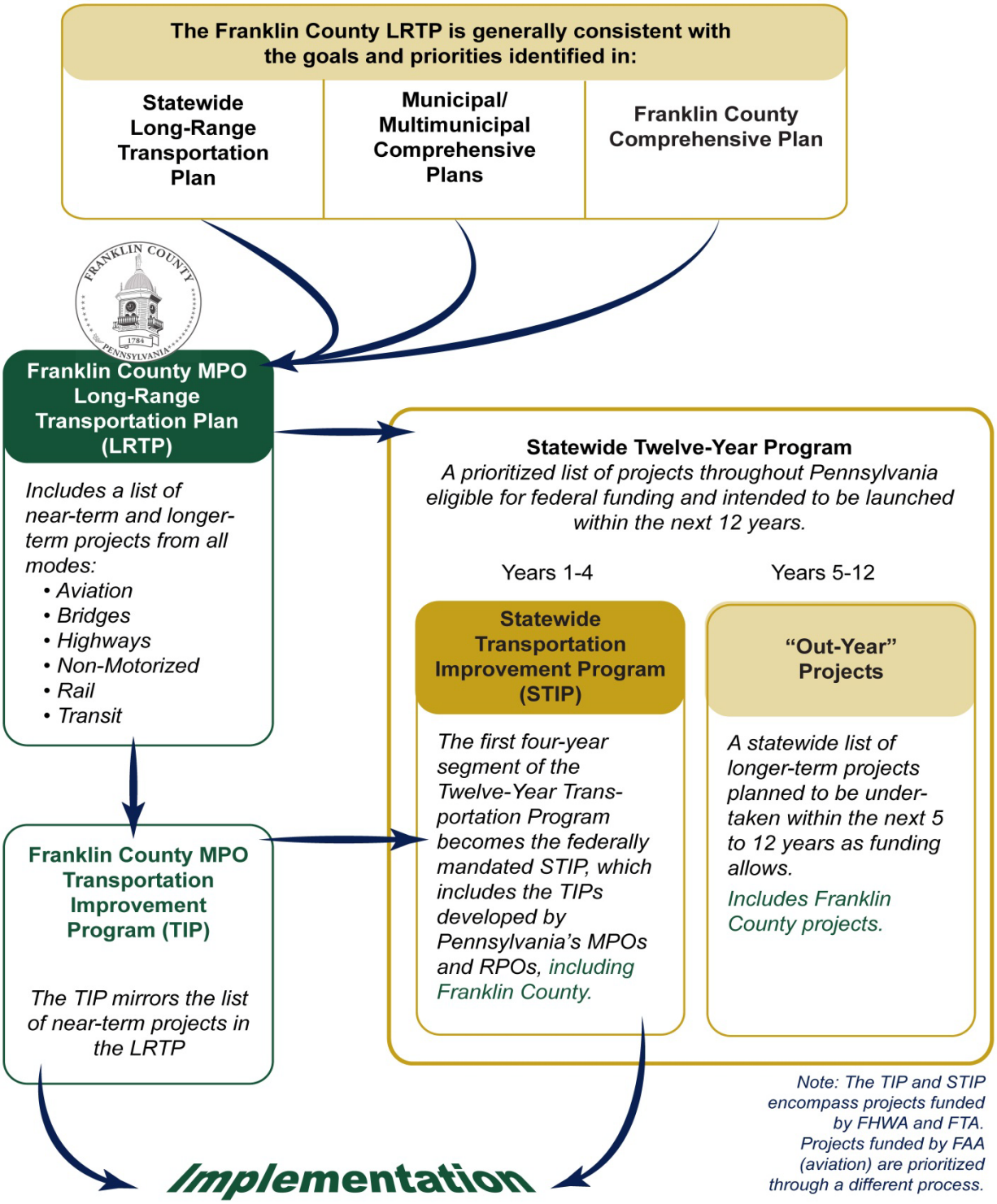
The Advisory Committee was first charged with identifying transportation goals and objectives for Franklin County. These goals were selected and prioritized by ranking a compilation of transportation goals identified in the Pennsylvania Mobility Plan (the Commonwealth's LRTP), the Franklin County Draft Comprehensive Plan, and other MPO/RPO LRTPs (Figure 4: The Franklin County MPO Transportation Planning Process: Goals to Projects). Each member of the Advisory Committee reviewed these goals and had the opportunity to add goals to the ranking list. High, medium, and low priority goals were then identified based on the tabulation of ranking

results from committee members. These goals and their supporting objectives are found in the Plan Goals section of the LRTP.

The planning process also incorporated a direct outreach effort to all of the municipalities in Franklin County to solicit input into transportation needs through PennDOT's LPN (Linking Planning and NEPA (National Environmental Policy Act)) Level 1 Form. Hard copy versions of the Level 1 Form were distributed to all municipal governments and the submitted transportation needs are summarized in the Action Plan portion of the LRTP. Similarly, meetings were held with District 8-0 to discuss high priority needs for the roadway system. The input secured from the District is also summarized in the Action Plan.

Transportation data was collected and analyzed for each respective mode and presented to the Advisory Committee and RPO Board for their evaluation. Meeting participants provided valuable input based on local knowledge and individual perspectives. This information was then used to help identify current and projected transportation needs. Draft plan documents were also shared with the committee and other stakeholders for review and comment. The LRTP provides the end result—a detailed analysis of existing conditions and trends relating to transportation and an Action Plan that includes a fiscally constrained approach for meeting the goals for the future Franklin County transportation system.

Figure 4: The Franklin County MPO Transportation Planning Process: Goals to Projects



Public Participation

The Franklin County RPO/MPO adopted an official Public Participation Plan (PPP) in February 2013. The PPP brings consistency in outreach practices, ensures public awareness of key strategies and projects, and provides a flexible approach to addressing environmental justice principles. Public outreach efforts related to the development and adoption of the LRTP are in compliance with the recently adopted PPP. Sample outreach materials are provided in Appendix B. Updates to the LRTP will similarly include public outreach as outlined in the official PPP.

In the absence of an adopted PPP, the public outreach efforts were focused through participation in the publicly advertised RPO meetings, Advisory Committee meetings, COG meetings, and the regular activities and outreach efforts of the Franklin County Planning Commission (FCPC). These meetings were held throughout the roughly 18-month schedule at least every other month. A section of the FCPC website also identified the fact that the LRTP planning effort was under way and offered input and comment opportunities. Also, since the LRTP serves as the transportation element of the County Comprehensive Plan and much of the comprehensive plan efforts coincided with the LRTP, the outreach efforts of the comprehensive plan further supplemented the LRTP activities.

A side benefit of the RPO meetings was the routine participation of the local newspaper, the Public Opinion, at many of the bimonthly meetings. There were a number of articles published on the LRTP effort which were then circulated throughout the county. Such articles helped advertise the effort and make the public aware of the oversight role of the FCPC as the most direct route for input into the process.

Municipal input was sought at numerous times throughout the planning effort, including direct email communications soliciting input into the transportation goals and objectives and transportation needs. The municipal outreach also included presentations to the Franklin County COG, which includes representation from 19 of the county's 22 municipalities, five school districts, and the county government. By soliciting municipal input directly for the LRTP, locally-elected officials were kept aware of the LRTP status and content. The municipal outreach became a cornerstone in the effort to make the general public aware of the planning effort through discussions at local municipal meetings.

The meetings and outreach efforts were further supplemented by a series of stakeholder interviews focusing on local representatives with specific local knowledge of the various transportation modes addressed in the LRTP. Examples of stakeholder interviewees include representation from the authority that manages Chambersburg Airport, the Franklin County demand response transit service provider, Norfolk Southern and CSX representatives, Chamber of Commerce and other economic development organizations, bicycle/pedestrian organizations, PennDOT District 8-0, and others.

There were two special outreach efforts that were also addressed throughout the development of the LRTP. These include Environmental Justice (EJ) populations and tribal consultation. The research and outreach conducted to address potential concerns of these populations are outlined below. Further enhancements to EJ and tribal outreach efforts have been addressed

through the development of the PPP in early 2013, so that all updates of the LRTP will incorporate input from these groups to the maximum extent practicable.

Environmental Justice

The Federal Highway Administration (FHWA) has long embraced non-discrimination policy to make sure federally-funded activities (planning through implementation) are not disproportionately adversely impacting certain populations. These populations include low income persons and populations as defined by the U.S. Department of Health and Human Services (HHS) Poverty Guidelines, and minority persons and populations (Black, Hispanic, Asian American, American Indian, and Alaskan Natives). As such, public involvement and outreach for the LRTP must adhere to Presidential Executive Order 12898, Environmental Justice.

- Black – a person having origins in any of the black racial groups of Africa.
- Hispanic – a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Asian – a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- American Indian and Alaskan Native – a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition.
- Native Hawaiian or Other Pacific Islander – a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- Low income – a person whose household income (or in the case of a community or group, whose median household income) is at or below the HHS poverty guidelines.

Franklin County's racial and ethnic composition is 92 percent White, followed by 4.3 percent Hispanic or Latino, and 3.1 percent African American. In comparison, Pennsylvania is 81 percent White, 5.7 percent Hispanic or Latino, and 10.8 percent African American. The LRTP process identified EJ populations through a comparison of the racial and ethnic composition of the county to the population composition of each municipality. Research undertaken by FCPC staff during the LRTP process revealed that the bulk of the Hispanic population in Franklin County resides in Chambersburg Borough (15.7 percent). As such, FCPC staff was able to distribute a Spanish-language flier announcing the planning process and providing contact information as the best available means of contact to the Hispanic population. Similar notifications were distributed to announce the availability of the draft LRTP.

Low income populations were also identified for Franklin County. Low income populations are defined by the FHWA for transportation planning purposes as families of four with a household income that is below the poverty guidelines set by HHS. The 2011 HHS poverty guideline for a family of four is $22,350. In Franklin County, a few areas were identified with slightly elevated percentages of people falling into this category. Outreach efforts in addition to the activities

described above that are intended to reach this population include public notices of the draft LRTP comment period provided to the Franklin County Human Services Department, employment offices, and public libraries.

Tribal Consultation

As part of the LRTP development and public outreach process, consultation with federally-recognized tribes that once resided in the Franklin County region was initiated by email to each tribe. Several environmental laws require tribal consultation during project development. Although Pennsylvania does not have current tribal lands, historic properties may be located on ancestral, aboriginal, or ceded lands affected by PennDOT projects. Fourteen federally-recognized tribes have been identified by PennDOT and FHWA for consultation purposes in Pennsylvania. The following tribes have been identified as having possible historic ties to Franklin County and were notified by email on February 10, 2012, and March 18, 2013.

- Absentee-Shawnee Tribe of Oklahoma
- Delaware Nation
- Eastern Shawnee Tribe of Oklahoma
- Seneca-Cayuga Tribe of Oklahoma
- Shawnee Tribe
- St. Regis Mohawk Tribe
- Tuscarora Nation

Plan Goals and Performance Measures

LRTP Goals and Objectives

The goals and objectives to guide the path for future transportation investment were based on input received from the LRTP Advisory Committee, RPO Board, and municipalities throughout the county. Potential goals and supporting objectives for each goal were evaluated by the committee to identify high, medium, and low priority transportation goals for the region.

Highest Priority:

Goal 1: Emphasize the preservation of the existing transportation system

Objective1.1: Prioritize improvements that seek to maintain or improve the quality of the existing transportation system

Goal 2: Encourage an integrated transportation and land use planning process throughout Franklin County

Medium Priority:

Goal 3: Increase the safety and security of the transportation system for motorized and non-motorized users

Objective 3.1: Identify and reduce potential conflicts between applicable modes throughout the transportation system

Objective 3.2: Identify and implement solutions that reduce or eliminate hazards

Goal 4: Support the economic vitality of the metropolitan area

Objective 4.1: Provide a transportation system that is safe and efficient for economic development that is consistent with local and county plans

Objective 4.2: Accommodate freight demands with minimized conflicts with other vehicular and non-motorized traffic

Goal 5: Increase the accessibility and mobility options available to people and for freight

Objective 5.1: Promote and increase the use of alternative modes of travel

Objective 5.2: Incorporate applicable modal needs into transportation system improvements

Objective 5.3: Identify needed non-motorized system improvements and seek to identify financial and/or institutional implementation mechanisms

Goal 6: Promote efficient system management and operation

Objective 6.1: Address factors that regularly result in congestion

Goal 7: Enhance the integration and connectivity of the transportation system

Objective 7.1: Identify and eliminate connectivity gaps in the transportation system

Lower Priority:

Goal 8: Protect and enhance the environment

Objective 8.1: Protect key natural resources identified through local and county comprehensive plans and related documents

Objective 8.2: Enhance the transportation system to improve air quality and support energy conservation

Objective 8.3: Maintain quality of life through integrated transportation and land use planning

Coordination with Other Plans

The process to identify goals and objectives for the Franklin County LRTP started with a review and comparison of goals and objectives from other related planning documents and policies to ensure general consistency. This review included:

- MAP-21 Federal Planning Factors
- Pennsylvania Mobility Plan
- Pennsylvania Livability Principles and Themes (Keystone Principles and Smart Transportation)
- Franklin County Comprehensive Plan

MAP-21 Federal Planning Factors

The following eight federal planning factors are identified in the MAP-21 Act passed in July 2012. These factors replace the planning factors identified in the previous transportation authorization bill, SAFETEA-LU (although they are almost identical).

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 of 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 of the transportation system, across and between modes, for people and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.

Pennsylvania Mobility Plan

The statewide Long-Range Transportation Plan for Pennsylvania, the *Pennsylvania Mobility Plan*, contains five goals to establish transportation priorities and guide transportation investment throughout the state. The goals of the Franklin County LRTP are complimentary to the following goals set forth for the state.

1. Move people and goods safely and securely.
2. Improve quality of life by linking transportation, land use, economic development, and environmental stewardship.
3. Develop and sustain quality transportation infrastructure.
4. Provide mobility for people, goods, and commerce.
5. Maximize the benefit of transportation investments.

Pennsylvania Livability Principles and Themes

PennDOT encourages MPOs and RPOs to consider the incorporation of livability principles and themes to better integrate land use and transportation planning. Livability principles support smart growth and sustainability to build better communities. In Pennsylvania, two statewide initiatives—Keystone Principles & Criteria and Smart Transportation—focus on smart growth and sustainability. The Keystone Principles & Criteria encourage targeted investments that foster sustainable economic development and conservation of resources in Pennsylvania's diverse communities. Smart Transportation is about partnering to build great communities for future generations of Pennsylvanians by linking transportation investments with land use planning and decision-making. The goals of the Franklin County LRTP are consistent with the principles and themes of these two initiatives.

Keystone Principles

- Redevelop First
- Provide Efficient Infrastructure
- Concentrate Development
- Increase Job Opportunities
- Foster Sustainable Businesses
- Restore and Enhance the Environment
- Enhance Recreational and Heritage Resources
- Expand Housing Opportunities
- Plan Regionally; Implement Locally
- Be Fair

Smart Transportation Themes

- Money counts
- Choose projects with high value-to-price ratio
- Enhance the local network
- Look beyond level-of-service
- Safety first, and maybe safety only
- Accommodate all modes
- Leverage and preserve existing investments

- Build towns and not sprawl
- Understand the context; plan and design within the context
- Develop local governments as strong land use partners

Franklin County Comprehensive Plan

The Franklin County Comprehensive Plan was updated concurrently with the development of the LRTP. The goals and objectives of the Comprehensive Plan were examined to ensure that the goals and objectives of the LRTP were complementary to the future vision for the county. In particular, it was essential to coordinate the development of the LRTP with the future land use scenario identified in the Comprehensive Plan. The future land use scenario sets the stage for future transportation assumptions and anticipated investments.

Outreach and Cooperation Goal: Engage in outreach, education, communication, and cooperation within the county.

Land Use and Housing Goal: Foster the continued livability and success of urban communities and of communities embedded within the rural landscape.

Resource Management Goal: Facilitate the protection and promotion of the county's rich natural resources, recreation opportunities and history.

Economic Development Goal: Promote economic opportunities while retaining agriculture and community character.

Transportation and Infrastructure Goal: Use a balanced approach in the development of transportation, infrastructure, and energy systems.

Performance Measures

Bridge and Pavement Performance Measures

Performance measures have been established by PennDOT for pavements and bridges to provide MPOs, RPOs, and PennDOT Engineering Districts with key measures to drive investment decisions in meeting PennDOT's overall asset management strategy. The consideration of these measures was included in the development of performance measures for the Franklin County LRTP. PennDOT's annual update and reporting process begins on March 31 to identify conditions of the previous calendar year. A report is then prepared and distributed each year to the MPOs, RPOs, and districts.

PennDOT's *2011 Performance Measures Annual Report* distributed in May 2012 provides the performance measure data and targets for reducing structurally deficient (SD) bridges as shown in Figure 5: Franklin County Performance Measures for Bridges. The overall statewide goal in the reduction of SD bridges is to achieve 8.3 percent SD deck area by 2033 while extending the life of the bridges that are not currently SD. Figure 6: Franklin County Performance Measures for Pavement (IRI and OPI) provides the pavement—International Roughness Index (IRI) and Overall Pavement Index (OPI)—performance measure data and targets identified for Franklin

County. IRI is a global standard for measuring pavement smoothness. OPI, a Pennsylvania specific measure, 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 a videolog process. Additional bridge and pavement performance measures are provided in the annual report. The MPO will work with PennDOT toward meeting the 2015 targets for improving bridge conditions and pavement performance.

Figure 5: Franklin County Performance Measures for Bridges

Franklin County Performance Measures for Bridges		
	2015 Target	Actual (2011)
SD State Bridges ≥ 8 ft	32	51
SD Local Bridges ≥ 20 ft	5	11
% SD by deck area for State Bridges ≥ 8 ft	8.0%	18.4%
% SD by deck area for Local Bridges ≥ 20 ft	4.3%	11.3%

Figure 6: Franklin County Performance Measures for Pavement (IRI and OPI)

	Reduce % Poor IRI		Maintain % Good & Excellent OPI	
	2015 Target	Actual (2011)	2015 Target	Actual (2011)
NHS, non-Interstate	1.3%	1.3%	99.8%	98.6%
non-NHS, ≥ 2,000 ADT	12.3%	13.2%	76.9%	81.7%
non-NHS, < 2,000 ADT	31.4%	31.6%	88.8%	89.2%

NHS = National Highway System
ADT = Average Daily Traffic
*Interstate performance measures are not included due to assumption that Interstate needs are identified and programmed through PennDOT's Interstate Maintenance Program.

MPO and LRTP Performance Measures

MAP-21 requires MPOs to develop a performance-based approach to transportation decision-making to support the seven national goals of the federal aid highway program. These performance goals include:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement and Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delays

National performance measures and state performance targets will be established in 2015 as part of MAP-21. MPOs and RPOs, in coordination with PennDOT, will reflect these measures and targets in future LRTP updates. As part of this LRTP, Franklin County RPO has identified performance measures and associated targets to reflect a number of the highest and medium priority goals identified in the plan. The target date set for achieving these performance measures is to coincide with the next formal update of the LRTP, which is estimated to be in 2017. Monitoring of performance measures will be ongoing, and the 2017 LRTP update will be shaped in part by progress achieved toward these goals. The LRTP performance measures and associated targets are identified in Figure 7: LRTP Performance Measures.

Figure 7: LRTP Performance Measures

Performance Measure	How	Target (2017 unless otherwise noted)	Baseline (2011 unless otherwise noted)	Data Source
Goal: Emphasize the preservation of the existing transportation system				
Reduce the number of structurally deficient bridges	Continue to program priority SD bridges on the TIP	state bridges = 32 (by 2015)	state bridges = 44	PennDOT Performance Measures Annual Report
		local bridges = 5 (by 2015)	local bridges = 10	
Reduce the percentage of structurally deficient bridge deck area	Continue to program priority SD bridges on the TIP	state bridge SD deck area = 8% (by 2015)	state bridge SD deck area = 18.4%	PennDOT Performance Measures Annual Report
		local bridge SD deck area = 4.3%	local bridge SD deck area = 11.3%	
Reduce poor IRI on roadways to meet statewide goals	Continue to program pavement cycle and capital maintenance projects on the TIP	NHS, non-Interstate = 1.3%	NHS, non-Interstate = 1.3%	PennDOT Performance Measures Annual Report
		non-NHS, ≥ 2,000 ADT = 12.3%	non-NHS, ≥ 2,000 ADT = 13.2%	
		non-NHS, < 2,000 ADT = 31.4%	non-NHS, < 2,000 ADT = 31.6%	
Maintain good & excellent OPI on roadways	Continue to program pavement cycle and capital maintenance projects on the TIP	NHS, non-Interstate = 99.8%	NHS, non-Interstate = 98.6%	PennDOT Performance Measures Annual Report
		non-NHS, ≥ 2,000 ADT = 76.9%	non-NHS, ≥ 2,000 ADT = 81.7%	
		non-NHS, < 2,000 ADT = 88.8%	non-NHS, < 2,000 ADT = 89.2%	
Goal: Encourage an integrated transportation and land use planning process throughout Franklin County				
Increase number of approved new/updated municipal comprehensive plans, transportation studies, and/or implementation tools developed to improve the integration of transportation and land use planning	FCPC as lead facilitator of land use/transportation strategies	Continued trend of increase in number of plans, studies, and ordinances	n/a	Comprehensive Plan and Ordinances submitted to county for review

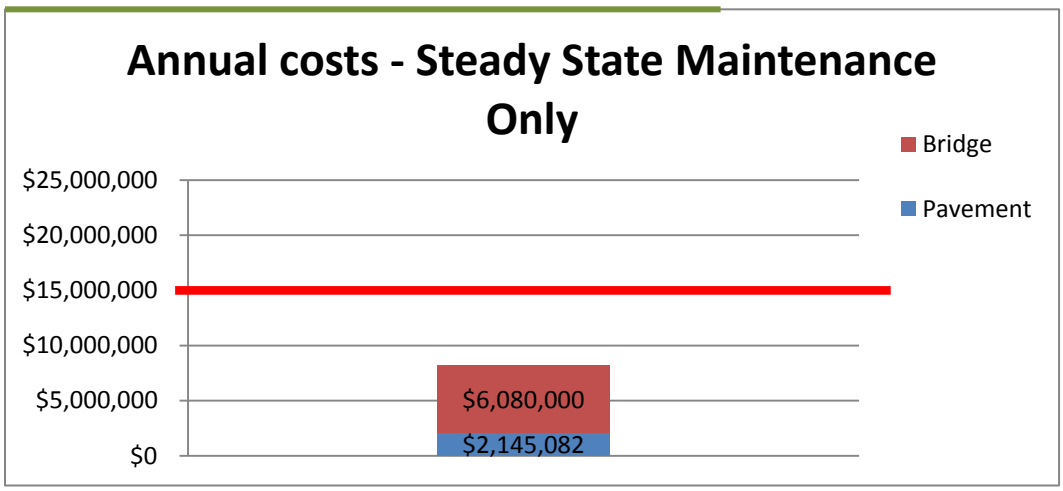
Performance Measure	How	Target (2017 unless otherwise noted)	Baseline (2011 unless otherwise noted)	Data Source
Increase number of approved land development plans that incorporate a connected street network and pedestrian/bicycle accommodations	FCPC as lead facilitator of land use/transportation strategies	Continued trend of increase in number of approved plans	n/a	Subdivision and land development approvals submitted to county for review
Increase in improved freight access for industrial properties	FCPC as lead facilitator of land use/transportation strategies	80% of new industrial land development has direct access to existing freight infrastructure (major collector/arterial roads, rail facilities, etc.)	n/a	Subdivision and land development approvals submitted to county for review
Increase use of *Commuter Services of PA* Rideshare Program throughout Franklin County	FCPC as lead facilitator of land use/transportation strategies and FCPC coordination with Commuter Services of PA rideshare program	30 businesses/ 1,400 employees in Franklin County	10 businesses/ 631 employees in Franklin County	*Commuter Services of PA* statistics
Goal: Increase the safety and security of the transportation system for motorized and non-motorized users				
Decrease 5-year average fatalities	Programming of priority safety projects on the TIP	Continued trend to decrease fatalities	25 (2007-2011)	Franklin RPO Highway Safety Guidance Report, PennDOT Bureau of Maintenance and Operations, Highway Safety Section
Decrease 5-year average major injury crashes	Programming of priority safety projects on the TIP	Continued trend to decrease major injury crashes	43 (2007-2011)	PennDOT Bureau of Highway Safety and Traffic Engineering
Decrease 5-year average pedestrian and bicycle crash-related injuries	Programming of priority safety projects on the TIP	Continued trend to decrease pedestrian and bicycle crash related injuries	36 (2007-2011)	PennDOT Bureau of Highway Safety and Traffic Engineering

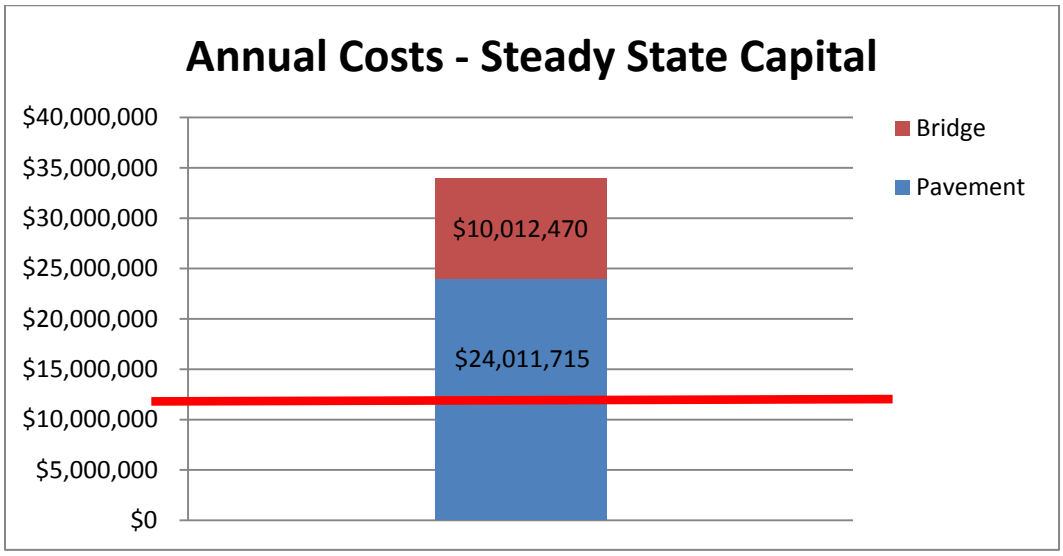
Performance Measure	How	Target (2017 unless otherwise noted)	Baseline (2011 unless otherwise noted)	Data Source
Decrease 5-year average of crashes involving horse and buggy	Programming of priority safety projects on the TIP	Continued trend to decrease number of crashes involving horse and buggy	2 (2007-2011)	PennDOT Bureau of Highway Safety and Traffic Engineering

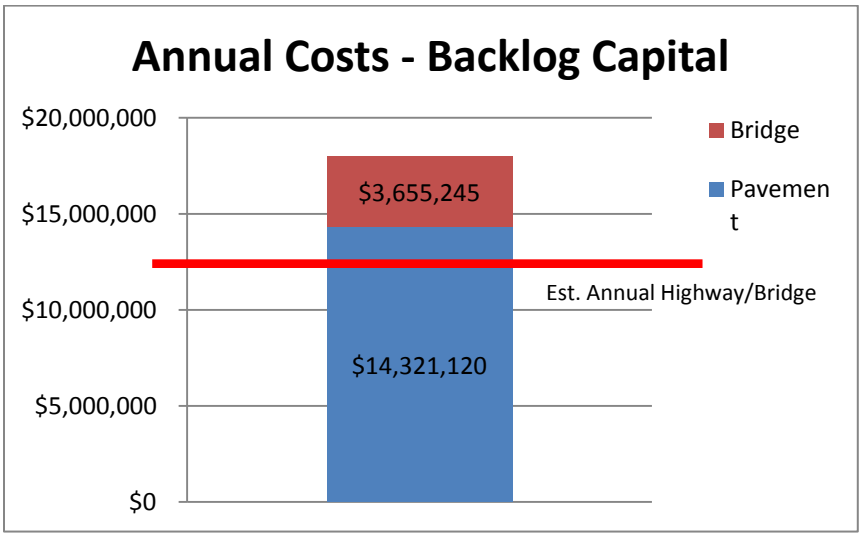
Asset Management

PennDOT provides guidance and methodology for use in determining financial needs to maintain transportation assets throughout the Commonwealth. The resource requirements for maintaining existing highway and bridge assets are developed by PennDOT using this methodology and are provided to each MPO and RPO. The most current Asset Management Data (2011 pavement data and December 2010 bridge data) provided by PennDOT for Franklin County identifies a total annual cost of $54.1 million required to maintain the state highway and bridge system. An additional $2.5 million is needed for signals, signs, guiderails, and other highway-related maintenance needs. Figure 8: Annual Maintenance Costs shows the costs associated with maintaining the existing system at a steady state through maintenance and capital projects, and the costs associated with backlog capital, in comparison to the $11.9 million annual highway and bridge base funding allocation for Franklin County. Steady State Maintenance refers to the estimated annual cost of performing cyclical maintenance and maintaining the system. Annual Steady State Capital refers to the costs associated with cyclical capital projects such as resurfacing and reconstruction necessary to keep the system in good repair. Annual Backlog Capital is the cost to perform cyclical capital projects that were not completed previously as part of the maintenance cycle. As illustrated in Figure 8: Annual Maintenance Costs, it is apparent that the annual cost of addressing capital and backlog capital maintenance needs far exceeds current available funding.

Figure 8: Annual Maintenance Costs







System Overview

Highlights

A number of key transportation trends were identified as part of the evaluation of existing transportation system issues/opportunities and trends analysis. Highlights of the existing system and emerging trends are identified below, followed by a detailed discussion of each mode.

Highway and Bridge

- The congestion management study outlines corridors within the county that would benefit from signal retiming. Implementation has begun through the use of available Congestion Mitigation and Air Quality (CMAQ) funding, and other identified signal improvements can be programmed in the future as money is made available.
- The I-81 Point of Access Study outlines a number of improvements that will be needed in conjunction with the new Guilford Springs Road interchange. It is anticipated that several of these improvements will be funded through future private development.
- Franklin County is falling behind in several pavement and bridge asset management targets identified in the *2011 Performance Measures Annual Report.* Focused efforts are needed to maintain these facilities.
- Improvements to non-interstate roadways are required to meet the Overall Pavement Index (OPI) goals. Twelve percent of the roadways fall outside the goals for Good and Excellent ratings. A number of these roads are out-of-cycle or past the design service life, defined as 40 years.
- Of the SD bridges, 4 are currently in construction and 16 are identified on the current TIP. The majority of the remaining state bridges are identified by the district on the priority bridge list for improvements. State and local bridge improvements will be added to future TIP updates as funding is made available.

Freight

- MAP-21 places a special emphasis on routes traversed by the heaviest payloads (gravel, sand, grain, etc.). A national Truck Size and Weight Study will likely steer future federal policies regarding these types of trucks.

- As freight uses in Franklin County continue to cluster near the CSX Intermodal Terminal and the Norfolk Southern facility, direct links between distribution/industrial facilities and Interstate 81 should be considered to minimize impacts on local traffic.

- Opportunities exist to generate future private investment within Franklin County to facilitate the distribution of goods destined to New England, New York, Philadelphia, Baltimore, or Washington, D.C., by leveraging existing assets in the county, including geographic location, doublestack clearance, existing public/private partnerships, and competing railroads that may provide for lower operating costs.

Transit and Ridesharing

- The majority of the labor force residing in Franklin County also works within the county (44,473). Of the commuters who work outside of Franklin County, most commute to Cumberland County (3,342), followed by Adams County (948). There are also a notable number of commuters coming into Franklin County from surrounding counties.

- There is a significant portion of residents in Franklin County that work in the Hagerstown metropolitan area or other destinations in Maryland. There are 10,269 commuters who live in Franklin County and work in Maryland, while only 3,010 commute from Maryland to Franklin County for work. The share of commuters traveling from Franklin County to Maryland is far greater than to any other surrounding Pennsylvania county (10,269 compared to 5,362).

- The *Regional Transit Coordination Study*, completed in Summer 2011, identified a longer-term recommendation for regional transit coordination that serves Franklin County with service to Harrisburg. This recommended transit corridor, traveling primarily along I-81, could be served by commuter bus, with stops at several park-and-ride locations. A first step would be to initiate a Chambersburg shuttle to Carlisle and then eventually extend Capital Area Transit (CAT) Route #81 to Chambersburg.

- Other than providing service from CAT from the north, additional transit options can be enhanced by providing transportation alternatives to the south, since many people moving to Franklin County from the Hagerstown area continue to work in Maryland. Coordination with York County MPO, Adams County RPO, and Rabbit Transit to evaluate transit opportunities could result in additional commuting options to the east and west.

- While ridership on the system provided by Franklin County Transportation, the region's demand response transportation service, has been fairly steady in the past five years, additional service is likely to be needed as the population continues to age.

Non-Motorized

- Pedestrian crash incidents along routes where pedestrian activity is highest should be reviewed and mitigated where possible.
- Pedestrian and bicycle connections to schools located in the most densely populated areas should be maximized to encourage walking or biking.
- Franklin County should continue to leverage and promote its existing trail network, which includes regionally- and nationally-significant recreational assets.
- The widening of road shoulders (where practicable) along routes where buggy traffic is highest should significantly enhance the safety of motorized and non-motorized traffic.

Aviation

- The Pennsylvania Statewide Airport System Plan (PSASP) recommends reclassification of the Franklin County Regional Airport to a Basic Functional Level Airport. The airport will serve general aviation aircraft along with some business, commercial, and military aircraft.
- Long-range plans for the development of the airport are designed to bring the facilities into compliance with existing FAA, state, and local requirements. These improvements include turnaround and runway extension, rehabilitation of on-site buildings, and construction of a new hangar and maintenance building.

Highway and Bridge

Overview

Franklin County's highway network includes the Pennsylvania Turnpike (I-76), I-81, 15 state routes, 2 US routes (US 30 and US 11), and more than 100 local roads. Based on mileage, local roads represent the majority (62 percent) of the system, however, only 12 percent of the daily vehicle miles traveled (DVMT) in Franklin County are on local roads. The majority of travel occurs on I-76 and I-81, which traverse the county. These two routes accommodate 38 percent of the county's DVMT, but only account for 2 percent of roadway mileage in the county.

There are a total of 411 state- and locally-owned bridges in Franklin County. The PennDOT Bridge Management System (BMS) identifies 306 bridges greater than 8 feet and 15 bridges 8 feet or less in length on the state-owned network. Fourteen percent of the bridges greater than 8 feet in length are structurally deficient. On the locally-owned network there are 90 bridges that are greater than or equal to 20 feet in length, of which, 11 percent are structurally deficient. An unknown number of local bridges with a total length of less than 20 feet are also located throughout the county. PennDOT has been working with the RPO/MPO to provide a more complete asset inventory of bridges and other roadway features.

Ensuring the safety of motorists is fundamental. The number of reported crashes in Franklin County decreased by 13 percent during the five-year period of 2006 to 2010. In 2010, a total of 1,397 crashes were reported in Franklin County. Although Franklin County crashes have been on the decline, the number of crash-related deaths in the county has remained relatively constant at an average of 21 fatalities each year. Roughly 40 percent of these fatalities involved alcohol.

Issues and Opportunities

Two recent transportation studies have reported system deficiencies and areas for improvement. The County Congestion Management Evaluation Study and I-81 Point of Access Study provide detailed analysis, identification of specific transportation issues, and recommended corrective actions. This section provides a brief summary of each study. In addition, the RPO requested municipalities and PennDOT District 8-0 to identify potential transportation improvement needs. The recommended transportation improvements are provided in the Action Plan section of the LRTP.

County Congestion Management Evaluation Study

During the initial stages of developing Franklin County's LRTP, the RPO identified the need to improve the operation of the county's rather complicated system of traffic signals. The RPO recognizes that Franklin County has the opportunity to enhance mobility, safety, and incident response through a series of traffic signal system improvements. Significant advances in congestion management and air quality can be achieved through short-term, low-cost signal retiming projects. Longer-term investments in traffic communications infrastructure and proactive management practices will also support mobility and safety as the region continues to grow. These types of improvements often can provide benefits that are not feasible through traditional road construction projects.

Based on the overall volume, truck percentages, crash cluster locations, and potential for existing and future congestion, the following corridors were identified for congestion management strategies:

1. Walker Road/Norland Avenue from the I-81 interchange to Scotland Avenue [8 signals]
2. Wayne Avenue (State Route (SR) 0316) from Garber Road/Kriner Road to 4th Street (SR 0317) including the I-81 interchange [8 signals]
3. Buchanan Trail (SR 0016) from Grindstone Hill Road (SR 2025) to Antrim Way (SR 0011) including the I-81 interchange [3 signals]
4. 2nd Street (SR 011) from E. McKinley Street (SR 0318) to Philadelphia Street (SR 0011) and Main Street (SR 0011) from South Street (0324) to Philadelphia Street (SR 0011) [14 signals]
5. Lincoln Highway (SR 0030) from West Side Plaza to Ragged Edge Road including the I-81 interchange [26 signals]

The majority of the corridors include an intersection at an interchange with I-81. The interstate is used for the majority of truck travel through the county, and the points where the arterials and collector roads intersect with the interstate can be prone to congestion. Route 11, a one-way pair through the Borough of Chambersburg, was also selected because it is frequently used as an alternative to I-81 during incidents on the interstate.

I-81 Point of Access Study

A feasibility and point of access study dated April 2011 was approved by FHWA in December 2011. The study area extended along I-81 from Chambersburg near Exit 14, Wayne Avenue Interchange, to Marion near Exit 10, Marion Interchange, and the area west of Route 11 to the area east of I-81. The study area is primarily within Guilford Township. A portion of Chambersburg Borough is also within the north end of the study limits.

The stated project purpose is to accommodate existing and proposed development by providing mobility and connectivity to I-81 while improving corridor-wide safety for both commuter and truck traffic. The proposed development that is occurring in the corridor between US 11 and I-81, from Chambersburg to Marion, consists of distribution centers, warehouses, light industry and business parks, and the CSX Intermodal Yard.

The stated project need includes:

- Existing access to I-81 for commuter and truck traffic causes conflicts on the local roadway system.
- Future (2030) access to I-81 will cause substantial congestion on the local roadway system.
- Truck traffic from the CSX intermodal yard will substantially add to future congestion.
- There are safety concerns related to the substantial number of at-grade railroad crossings (nine on Norfolk Southern and three on CSX) in the study area.

The feasibility study evaluated the following alternatives:

- No-Build
- Transportation Systems Management (TSM)
- TSM and Widening Improvements
- Guilford Springs Road Interchange
- Lighthouse Road Interchange
- Collector-Distributor Road
- Southbound I-81 Access Ramps at Guilford Springs Road with Selected TSM Improvements

The Guilford Springs Road Interchange option was the selected alternative. This alternative provides the ultimate solution to address the mobility and safety issues associated with the total build-out of the commercial/industrial development in the study area. In conjunction with Smart Transportation guidelines, the report proposes right-sizing the improvements utilizing a phased approach to comply with progressive development and land use changes.

Inventory

The project team prepared roadway, traffic signal, and bridge inventories for Franklin County using information obtained from PennDOT's Roadway Management and Bridge Management Systems (RMS and BMS), and the County Congestion Management Evaluation Study.

Roadways

In 2010, a total of 1,684 linear miles of roadway comprised Franklin County's roadway system (Figure 9: Roadway Mileage). Sixty-two percent of the roadway miles are locally-owned, 36 percent are PennDOT-owned, and the remaining 1 percent is owned by other state agencies and the PA Turnpike Commission.

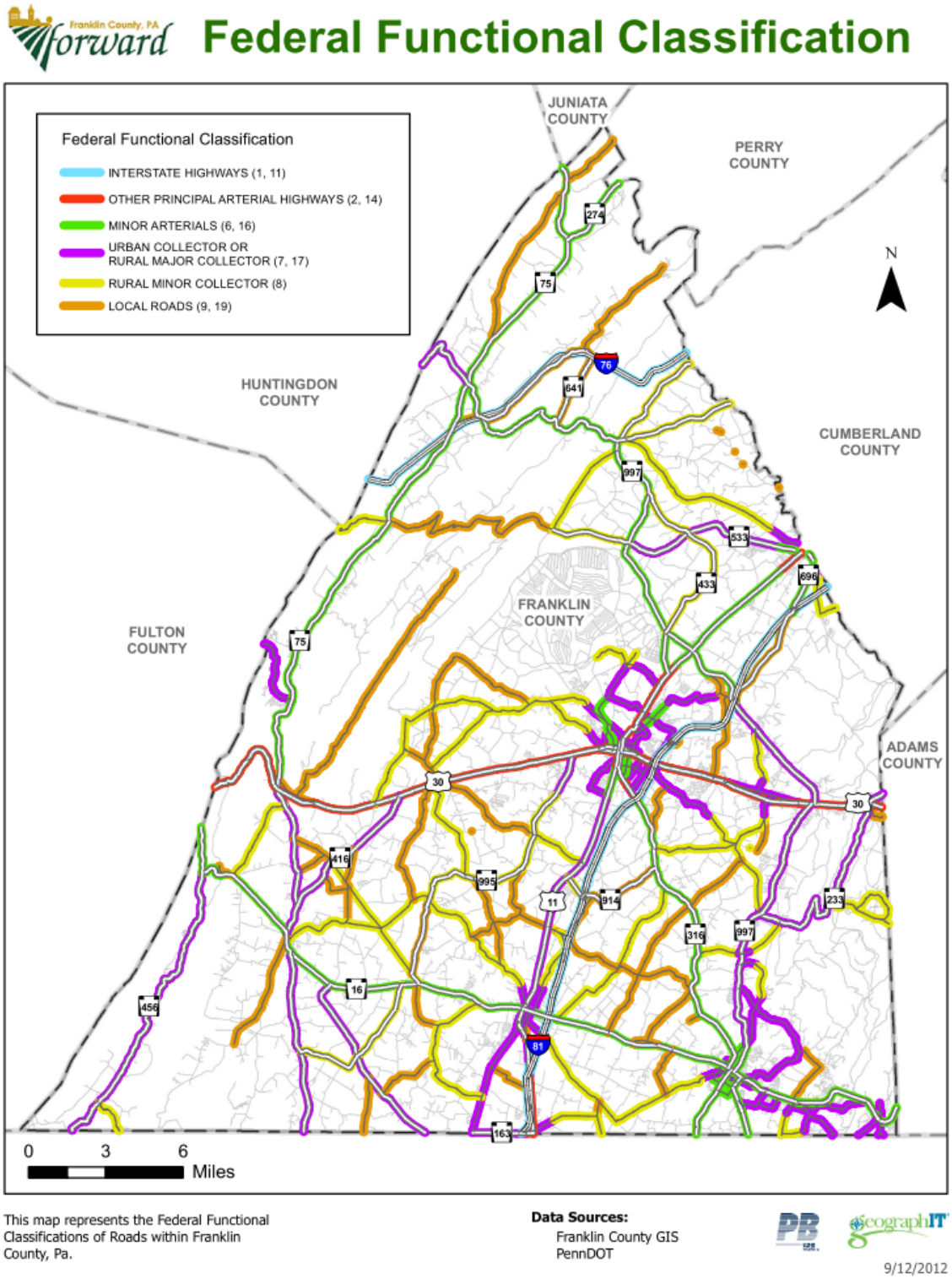
Figure 9: Roadway Mileage

Record Year	PennDOT Linear Miles	Other Agencies' Linear Miles*	Turnpike Linear Miles	Toll Bridge Linear Miles	Local Municipal Linear Miles	Total Linear Miles
2010	613.72	12.33	14.90	0.00	1,043.05	1,684.00

*Includes state and federal agency miles

The map shown in Figure 10: Federal Functional Classification Map identifies the federal functional classifications assigned to interstates and state-owned roadways in Franklin County. The functional classification of a roadway may change over time based on changing traffic conditions. The highlighted roads on the Functional Classification Map represent routes on the Federal Aid System (with the exception of rural minor collectors and local roads). These routes are eligible for federal funds.

Figure 10: Federal Functional Classification Map



This map represents the Federal Functional Classifications of Roads within Franklin County, Pa.

Data Sources:
Franklin County GIS
PennDOT

9/12/2012

In 2010, the federal aid system represented 365.7 linear miles and the non-federal aid system represented 1,318.3 linear miles of roadway in the county. Figure 11: Mileage by Federal Classification shows the total linear miles by federal classification.

Figure 11: Mileage by Federal Classification

Record Year	FEDERAL AID LINEAR MILES					Non-Federal Aid Linear Miles		Total Linear Miles
	Interstate	Other Frwy/ Expwy	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	
2010	40.7	0.0	41.0	124.3	159.7	147.2	1,171.1	1,684.0

The comparison of total roadway miles versus DVMT by functional classification is illustrated in Figure 12: Roadway Mileage and DVMT by Functional Classification. Although only 2 percent of the roadway mileage in Franklin County is classified as interstate (PA Turnpike and I-81), they account for 38 percent of the overall DVMT. Conversely, 70 percent of the roadway mileage is classified as local, yet only carries 12 percent of the DVMT. In addition to DVMT, high traffic volumes also indicate where the majority of travel occurs. As illustrated in

Figure 13: Traffic Volume Map, the majority of the average daily traffic occurs on I-81, US 11, US 30, and SR 16.

Figure 12: Roadway Mileage and DVMT by Functional Classification

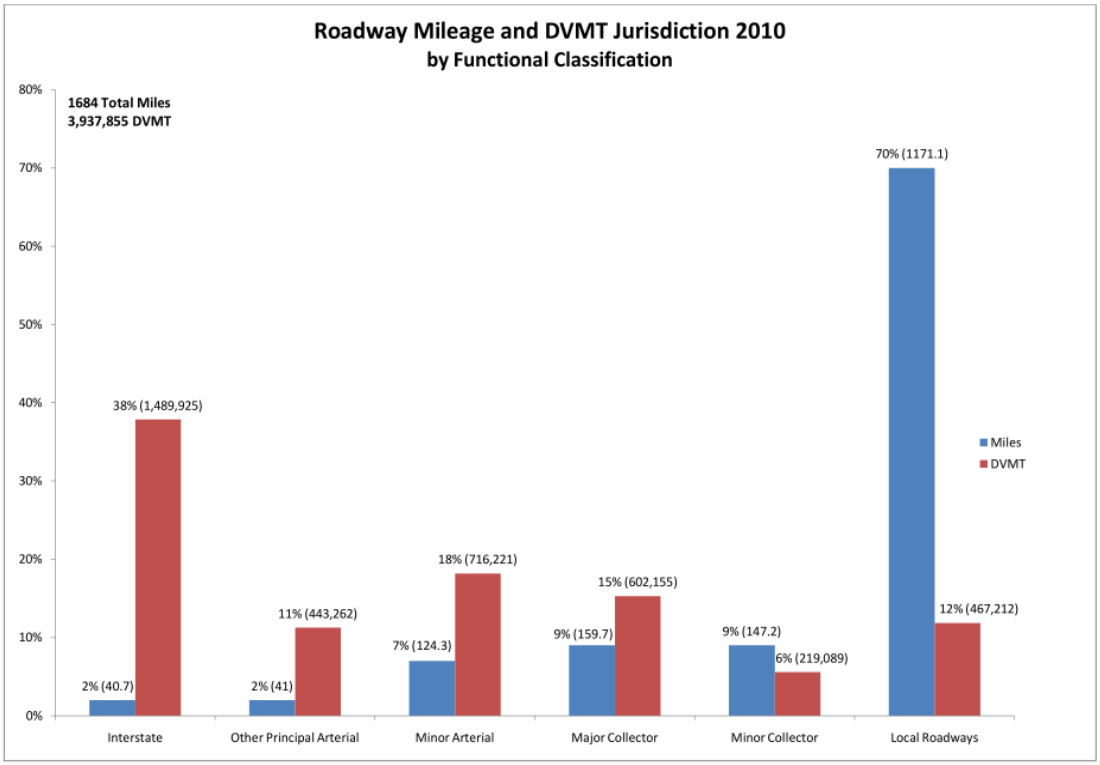
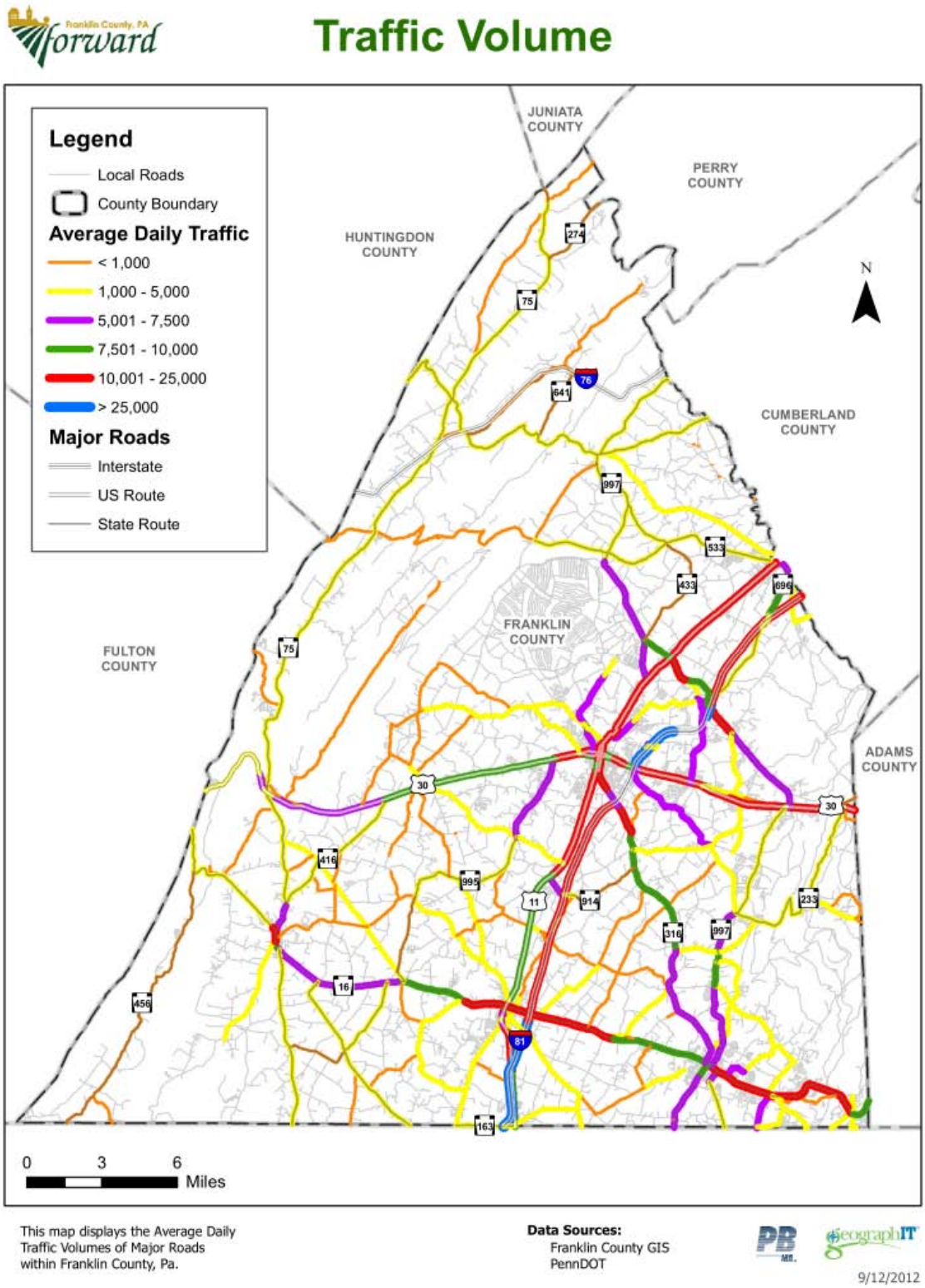
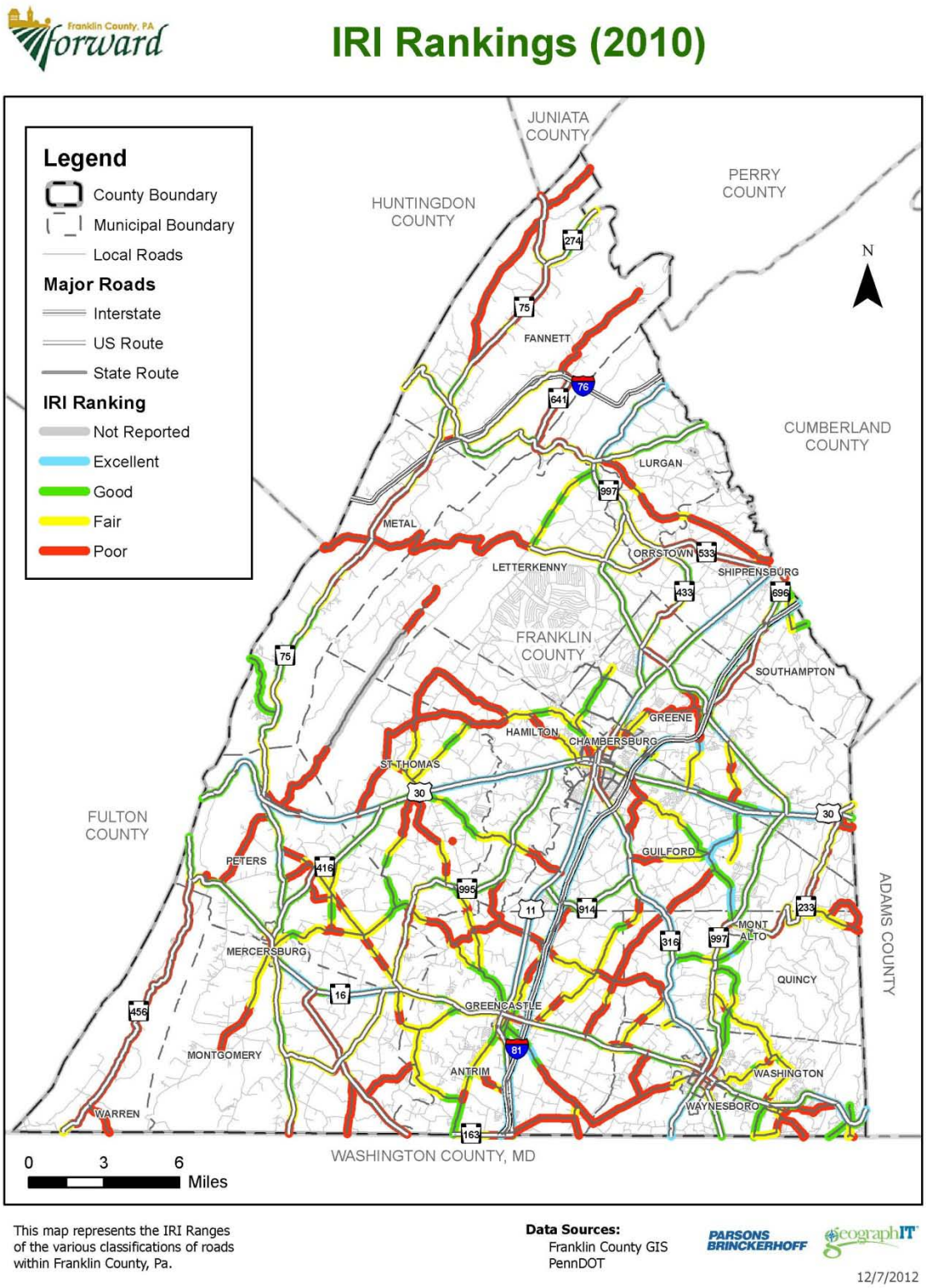


Figure 13: Traffic Volume Map



Pavement performance is an indicator of roadway condition. Pavement performance is evaluated by PennDOT by using the International Roughness Index (IRI), a worldwide standard for measuring pavement smoothness. The index measures pavement roughness in terms of the number of inches per mile that a laser, mounted in a special van, jumps as it is driven down a stretch of highway. The lower the IRI number, the smoother the ride, and the better the pavement condition. Figure 14: IRI Map illustrates the pavement performance in 2011 for the NHS system throughout the county. According to PennDOT's *2011 Performance Measures Annual Report – Pavements* for Franklin County, 62 percent of the tested NHS and non-NHS segment miles have a good or excellent IRI rating and 38 percent have a fair or poor IRI rating.

Figure 14: IRI Map



This map represents the IRI Ranges of the various classifications of roads within Franklin County, Pa.

Data Sources:
Franklin County GIS
PennDOT

PARSONS BRINCKERHOFF
cographIT

12/7/2012

A descriptive summary of the key features for I-81, US 30, US 11, and the 15 state routes is provided in Figure 15: Roadway Key Feature Summary. This summary identifies roadway characteristics including the number of lanes, roadway width, ADT, resurfacing history, average IRI, and functional classification.

Figure 15: Roadway Key Feature Summary

Roadway	Limits/Location	Functional Classification	Key Features
US-11	Maryland State Line to Cumberland County Line via Antrim Township, Guilford Township, Greene Township, and Southampton Township	Rural Major Collector, Principal Arterial, and Minor Arterial	• 2 lanes; pavement width varies from 24 to 51 feet. • Average ADT of 10,000 vehicles. • The section from seg. 320 to seg. 370 has not been resurfaced since 1990, 1993, or 1996 and has an average roughness index number of 200. • The section from seg. 90 to seg. 110 has not been resurfaced since 1954 and has an average roughness index number of 173. • The remaining sections of US-11 have an average IRI number below 100.
SR-16	Fulton County Line to Adams County Line via Washington Township, Antrim Township, Montgomery Township, and Township of Peters	Minor Arterial	• 2 lanes; pavement width varies from 20 to 62 feet with exception of 3 lanes from seg. 630 to seg. 670, pavement width varies from 37 to 61 feet. • ADT ranges from 4,500 to 19,700 vehicles with an average of 9,500 vehicles. • Large sections have not been resurfaced since 1998. • The average IRI number for SR-16 is 111. Seg. 360-390 and seg. 540-550 have an IRI number above 175.
US-30	Fulton County Line to Adams County Line via Greene Township, Guilford Township, Hamilton Township, Saint Thomas Township, and Township of Peters	Principal Arterial	• 1 to 3 lanes; pavement width varies from 12 to 68 feet. • ADT ranges from 2,900 to 18,500 vehicles with an average of 9,400 vehicles. • All of approximately 1 mile of US-30 has been resurfaced since 2005. • The average IRI for US-30 is 78. No segments have a roughness index number above 175.

Roadway	Limits/Location	Functional Classification	Key Features
SR-75	Huntingdon County Line to Cumberland County Line via Lurgan Township, Fannett Township, and Metal Township	Interstate Highway	• 2 lanes; pavement width varies from 20 to 38 feet. • ADT ranges from 685 to 5,000 vehicles with an average of 2,100 vehicles. • The section from seg. 170 to seg. 280 was resurfaced in 2009. The remaining sections of roadway have been resurfaced between 1965 and 2002. • The average IRI number for SR-75 is 147. Seg. 750-890 and seg. 510-580 have an IRI above 175.
I-81	Maryland State Line to Cumberland County Line via Antrim Township, Guilford Township, Greene Township, and Southampton Township	Interstate Highway	• 2 to 3 lanes; pavement width varies from 24 to 40 feet. • ADT ranges from 18,800 to 26,900 vehicles with an average of 22,000 vehicles. • All of I-81 has been resurfaced since 2003. • The lowest average IRI of any roadway in the county. Average IRI of 52. • The highest truck percentage of any roadway in the county at 26%.
SR-163	Along Maryland/Pennsylvania State Line, near US-11 and I-81	Rural Major Collector	• 2 lanes; pavement width varies from 20 to 34 feet. • ADT ranges from 2,600 to 4,900 vehicles with an average of 3,000 vehicles. • The section from seg. 50 to seg. 60 was resurfaced in 1988. The remaining sections of roadway were resurfaced in 1999. • The average IRI for SR-163 is 184.
SR-233	Mont Alto to Adams County Line via Quincy Township, Guilford Township, and Greene Township	Rural Major Collector	• 2 lanes; pavement width varies from 20 to 37 feet. • ADT ranges from 640 to 2,350 vehicles with an average of 1,450 vehicles. • The section from seg. 210 to seg. 220 was resurfaced in 2008. The remaining sections of roadway were resurfaced in either 1994 or 1995. • The average IRI for SR-233 is 160.

Roadway	Limits/Location	Functional Classification	Key Features
			Seg. 50-60 have an IRI above 175.
SR-274	SR-75 to Perry County Line in Fannett Township	Minor Arterial	• 2 lanes; pavement width varies from 20 to 23 feet. • Average ADT of 225 vehicles. • All of SR-274 was resurfaced in 2010. • The average IRI for SR-274 is 128. No segments have an IRI above 175.
SR-316	Maryland State Line to US-11 via Washington Township, Quincy Township, and Guilford Township	Minor Arterial	• 2 lanes; pavement width varies from 22 to 50 feet. • ADT ranges from 5,000 to 10,000 vehicles with an average of 7,200 vehicles. • The section from seg. 320 to seg. 360 was resurfaced in either 1979 or 1998. The remaining sections of roadway were resurfaced in 2002, 2007, or 2010. • The average IRI for SR-316 is 96. Seg. 90, seg. 350-360, and seg. 321-341 have an IRI above 175.
SR-416	Maryland State Line to US-30 via Montgomery Township, Township of Peters, and Saint Thomas Township	Rural Major Collector and Minor Arterial	• 2 lanes; pavement width varies from 20 to 32 feet. • ADT ranges from 2,100 to 3,000 vehicles with an average of 7,200 vehicles. • The section from seg. 240 to seg. 290 was resurfaced in 1966. The section from seg. 60 to seg. 90 was resurfaced in 2010. The remaining sections of roadway were resurfaced in 1991, 1992, or 1993. • The average IRI for SR-416 is 192. Seg. 180-290 have an IRI below 175.
SR-433	US-11 to SR-997 via Greene Township, Southampton Township, and Lurgan Township	Minor Arterial and Rural Minor Collector	• 2 lanes; pavement width varies from 20 to 32 feet. • ADT ranges from 1,000 to 5,900 vehicles with an average of 2,100 vehicles. • The section from seg. 10 to seg. 40 was resurfaced in 1999. The remaining sections of roadway were resurfaced in 2001, 2006, or 2007. • The average IRI for SR-433 is 142. Seg. 80, seg. 100-110, and seg. 150-160 have an IRI above 175.

Roadway	Limits/Location	Functional Classification	Key Features
SR-456	Maryland State Line to SR-16 via Warren Township and Township of Peters	Rural Minor Collector	• 2 lanes; pavement width varies from 20 to 28 feet. • An average ADT of 772 vehicles. • All of SR-456 was resurfaced in either 2006 or 2007. • The average IRI for SR-456 is 222. All segments have an IRI above 175.
SR-533	Upper Strasburg to Adams County Line via Letterkenny Township and Southampton Township	Rural Minor Collector and Rural Major Collector	• 2 lanes; pavement width varies from 20 to 29 feet. • ADT ranges from 1,000 to 4,600 vehicles with an average of 2,200 vehicles. • SR-533 was last resurfaced in either 1992 or 1997. • The average IRI for SR-533 is 190. Seg. 90-220 have an IRI above 175.
SR-641	Huntingdon County Line to Cumberland County Line via Fannett Township and Lurgan Township	Rural Major Collector, Minor Arterial, and Rural Minor Collector (with truck route)	• 2 lanes; pavement width varies from 20 to 34 feet. • ADT ranges from 1,400 to 3,800 vehicles with an average of 2,400 vehicles. • The section from seg. 210 to seg. 300 was resurfaced in either 1971 or 1972. The remaining sections of roadway were last resurfaced in 2001. • The average IRI for SR-641 is 129. Seg. 70 and seg. 110 have an IRI above 175.
SR-696	SR-997 to Cumberland County Line via Greene Township and Southampton Township	Local Road and Minor Arterial	• 2 lanes; pavement width varies from 22 to 46 feet. • ADT ranges from 1,700 to 8,500 vehicles with an average of 3,900 vehicles. • SR-696 was last resurfaced in either 1998 or 2002. • The average IRI for SR-696 is 169. Seg. 20-80, seg. 100, and seg. 150 have an IRI above 175.
SR-914	US-11 and SR-316 in Guilford Township	Rural Minor Collector and Local Road	• 2 lanes; pavement width varies from 20 to 28 feet. • ADT ranges from 856 to 5,900 vehicles with an average of 2,200 vehicles. • SR-914 was last resurfaced in either

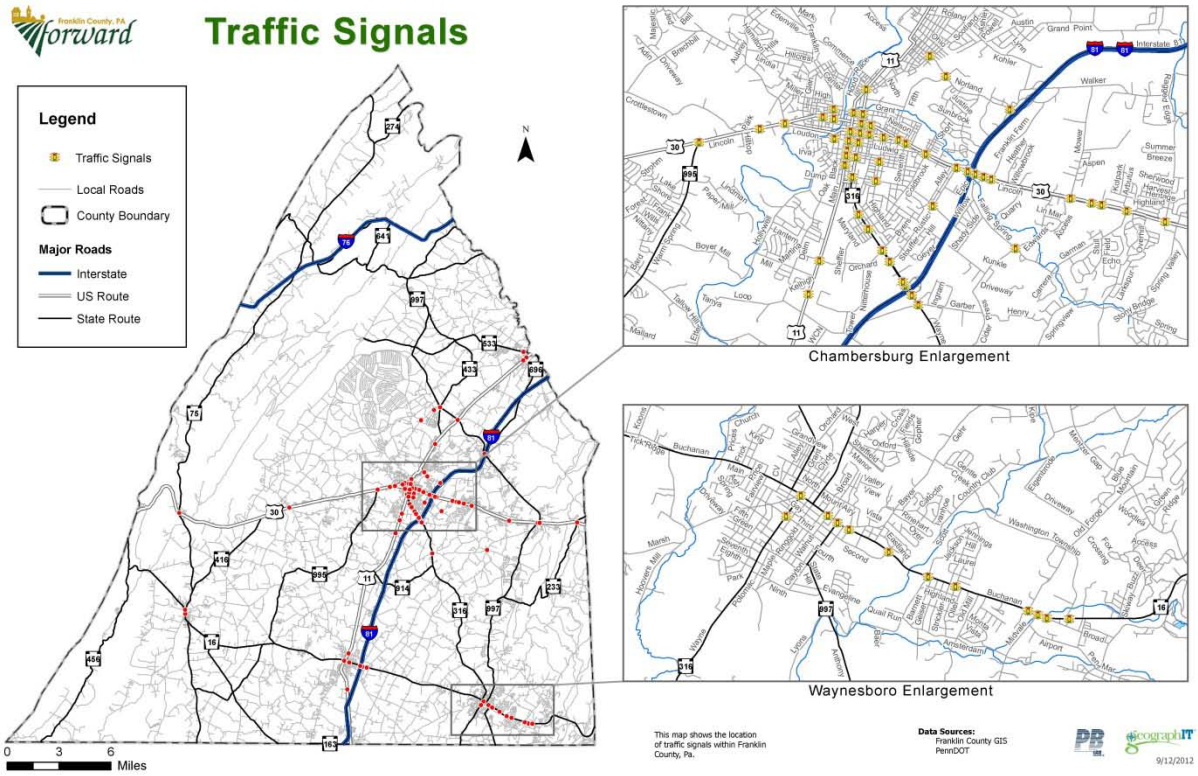
Roadway	Limits/Location	Functional Classification	Key Features
			2006 or 2007. • The average IRI for SR-914 is 104. No segments have an IRI above 175.
SR-995	SR-75 to US-30 via Montgomery Township, Township of Peters, Saint Thomas Township, and Hamilton Township	Rural Minor Collector, Local Road, and Rural Major Collector	• 2 lanes; pavement width varies from 20 to 28 feet. • ADT ranges from 600 to 6,600 vehicles with an average of 2,400 vehicles. • The section from seg. 60 to seg. 110 was resurfaced in 2010. The remaining sections of roadway were last resurfaced in 1993, 1996, 1997, or 1999. • The average IRI for SR-995 is 133. Seg. 50, seg. 160, and seg. 180-190 have an IRI above 175.
SR-997	Maryland State Line to Cumberland County Line via Washington Township, Quincy Township, Guilford Township, Greene Township, Letterkenny Township, and Lurgan Township	Minor Arterial, Rural Major Collector, and Rural Minor Collector	• 2 lanes; pavement width varies from 20 to 69 feet. • ADT ranges from 1,500 to 12,000 vehicles with an average of 5,500 vehicles. • Several sections of SR-997 have not been resurfaced since 1993. The remaining sections of roadway were last resurfaced in 1998, 2000, 2001, or 2008-2010. • The average IRI for SR-997 is 113. Seg. 50-70, seg. 210, seg. 420, and seg. 480-500 have an IRI above 175.

Traffic Signals

The congestion management evaluation study conducted during the LRTP development process provided for an extensive inventory of traffic signals. Franklin County's traffic signal system contains a total of 119 traffic signals, as shown in Figure 16: Franklin County Traffic Signals Map. Seventy-five percent of these traffic signals are concentrated in and around the Borough of Chambersburg and along Route 16 in the boroughs of Greencastle and Waynesboro. The Borough of Chambersburg accounts for 42 percent of the signals in the county's system, with a total of 50 signals within its jurisdiction. A detailed summary of individual traffic signal information is provided in Appendix E: Traffic Signal Summary. The table provides a descriptive inventory for each individual traffic signal and identifies whether pedestrian signals and/or emergency preemption facilities are present at the signalized intersection. Emergency preemption is an enhancement to the traffic signal system to allow emergency vehicles to

manipulate signal timing in order to reduce response time and improve safety through the intersection.

Figure 16: Franklin County Traffic Signals Map



Based on PennDOT data, 90 percent of the county's signals are controlled by Econolite® Controllers. Signal interconnect allows traffic signal controllers at each intersection to communicate with each other. That allows progression of green lights along a corridor without degradation over time (individual controller clocks eventually lose synchronization with each other). If there is a connection from one of the controllers to a centralized computer in an office, many additional opportunities for signal management are possible, such as implementing pre-determined special timing plans along entire corridors. A corridor with good progression will eliminate or significantly reduce unnecessary stops on the corridor, thus reducing vehicle emissions and creating reliable travel times for the traveling public.

Many of the signals in and around the Borough of Chambersburg are part of an interconnected system linked to a central computer at Borough Hall. The borough uses the Econolite Aries® system software to manage the signals on the system. Many of these signals have not undergone a retiming as an interconnected corridor in many years. When changing traffic patterns are not reflected in updated signal timing, system performance is diminished. The Aries® software can only support 24 traffic signals per system, and the borough is already using it to the full capacity. Econolite's successor software to Aries®—Centracs®—provides many

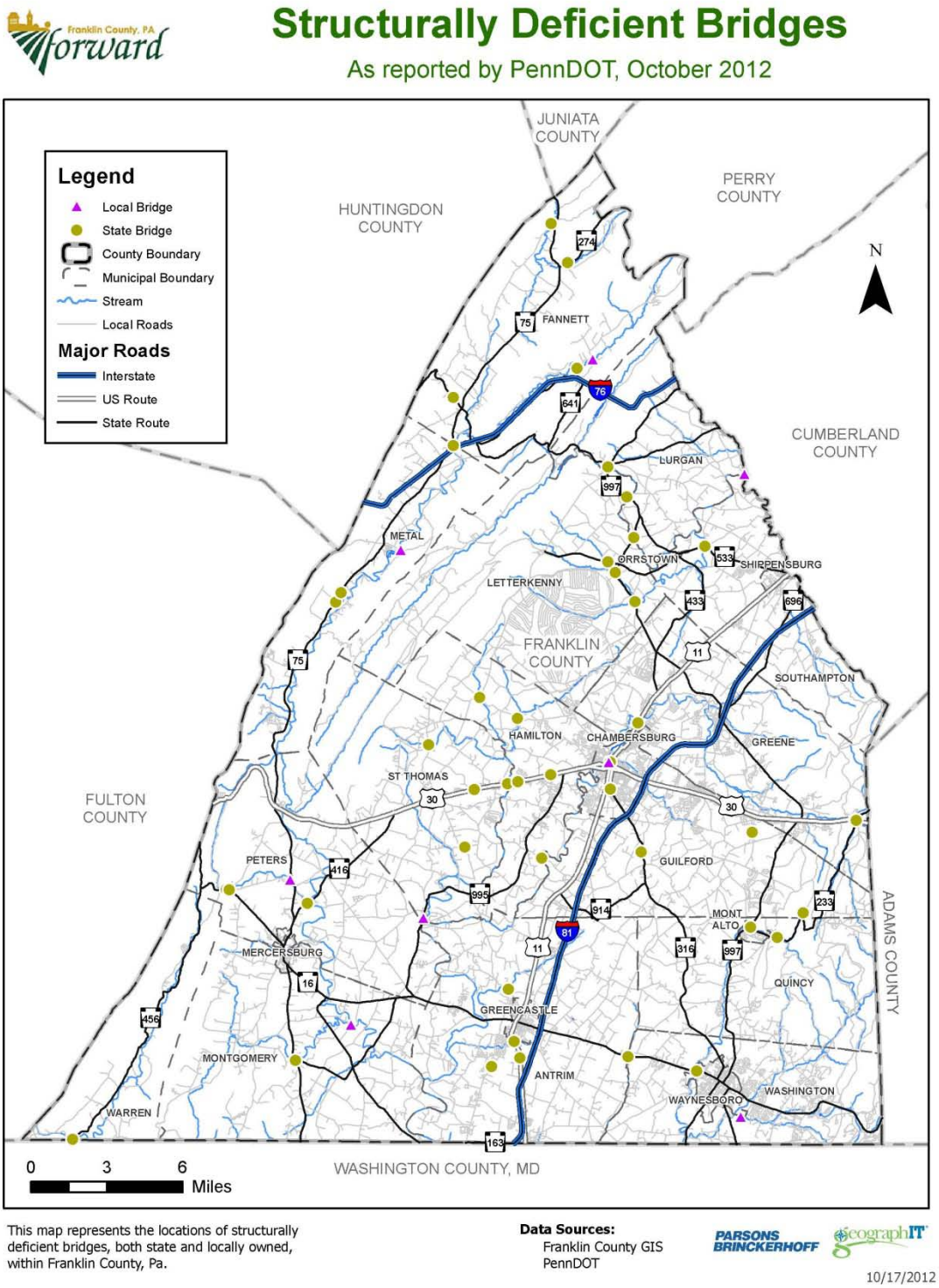
advanced features and is capable of managing hundreds of signals as well as other Intelligent Transportation System (ITS) devices, such as closed circuit television (CCTV) cameras and dynamic message signs (DMS). There are similar systems available from other vendors, but it would be difficult to integrate them fully with the borough's existing Econolite controllers. The borough has inter-municipal agreements with Hamilton Township, Guilford Township, and Peters Township. The majority of those traffic signals also have Econolite controllers.

The current interconnect system in Franklin County is a combination of copper wire, fiber optics, and radio controlled systems. While copper wire is adequate to accomplish coordination, the increased data rates provided by fiber optic interconnect would allow the management system to take advantage of more of the new technology as it becomes available. For example, fiber optic cable will allow many video images to be transmitted to the central control location, providing maintenance and operations staff a remote view of traffic operations or incidents.

Bridges

As of June 2011, data from PennDOT's Bridge Management System (BMS) indicated Franklin County had a total of 411 state and local bridges. Of these bridges, 306 are state bridges greater than 8 feet in length, 15 are 8 feet or shorter, and 90 are local bridges greater than 20 feet. Fifty-four of these state and local bridges are SD and are shown on Figure 17: Structurally Deficient Bridges Map.

Figure 17: Structurally Deficient Bridges Map



This map represents the locations of structurally deficient bridges, both state and locally owned, within Franklin County, Pa.

Data Sources:
Franklin County GIS
PennDOT

PARSONS BRINCKERHOFF
geographIT

10/17/2012

PennDOT BMS provides details for state bridges greater than 8 feet in length and local bridges greater than 20 feet, as shown in Appendix F: State Bridge Information and Appendix G: Local Bridge Information.

*The sufficiency rating ranges from 100 (sufficient) to 0 (deficient). *Structurally Deficient* (SD) indicates that the condition of a bridge consists of a noteworthy defect. Bridges that are SD are often posted with weight or speed restrictions to allow the bridge to remain open until the defect is repaired. A *Functionally Obsolete* (FO) bridge is a structure that was built to standards that predated current design standards. FO bridges may not have sufficient vertical clearance, adequate lane or shoulder widths, or may be susceptible to flooding.

Of the 306 state-owned bridges greater than eight feet in length, PennDOT District data identifies 14 percent (44) as SD and 17 percent (50) as FO (Figure 18: State Bridges within Franklin County). In terms of bridge deck area (square feet), 12 percent of the state bridge deck area in Franklin County is classified as SD (Figure 19: State Bridges by Deck Area). In comparison to District 8-0, Franklin County has a lower share of SD bridges, and is similar in percentage of SD deck area, at 12 percent. Of the 44 SD state bridges in Franklin County, 4 are currently in construction and 16 are identified in the current TIP or TYP. The District's priority bridge list located in the Action Plan section of the LRTP identifies state bridges for improvement over the next 20 years. There are no closed bridges on the state system; however, there are four bridges that are posted for weight restrictions (Figure 20: Posted State-owned Bridges).

Figure 18: State Bridges within Franklin County

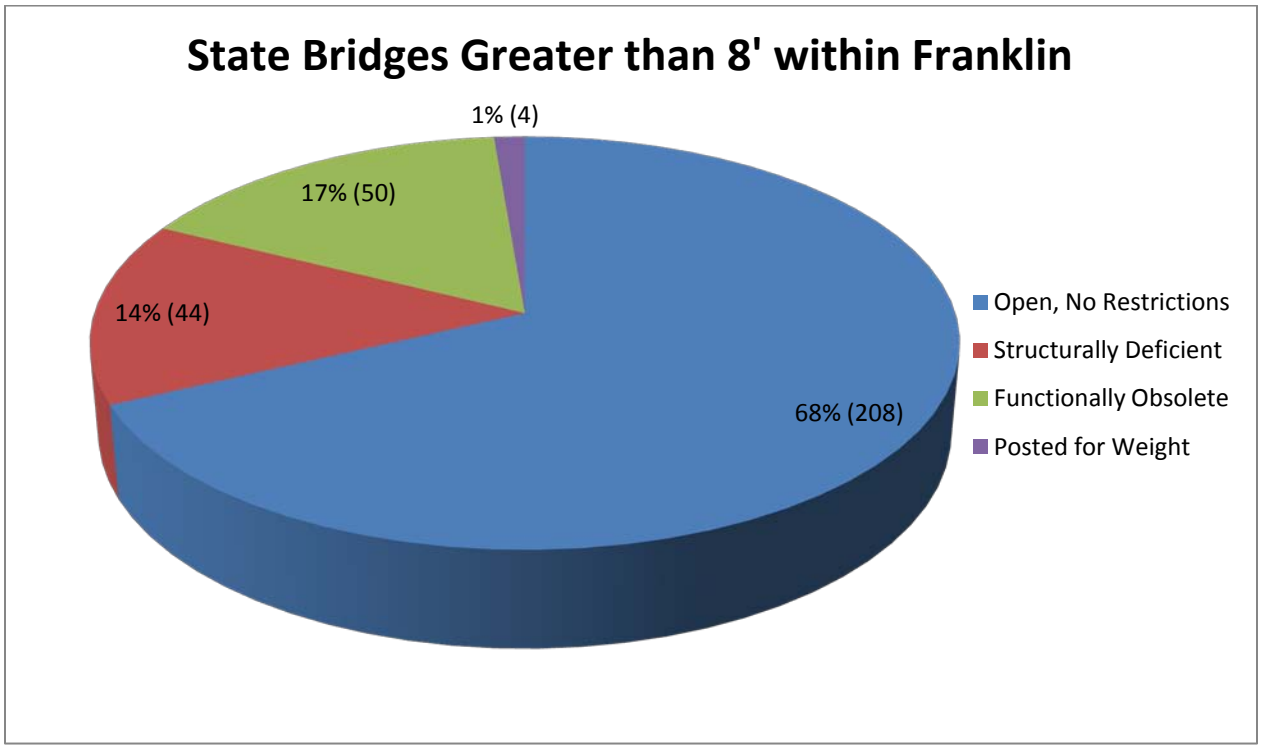


Figure 19: State Bridges by Deck Area

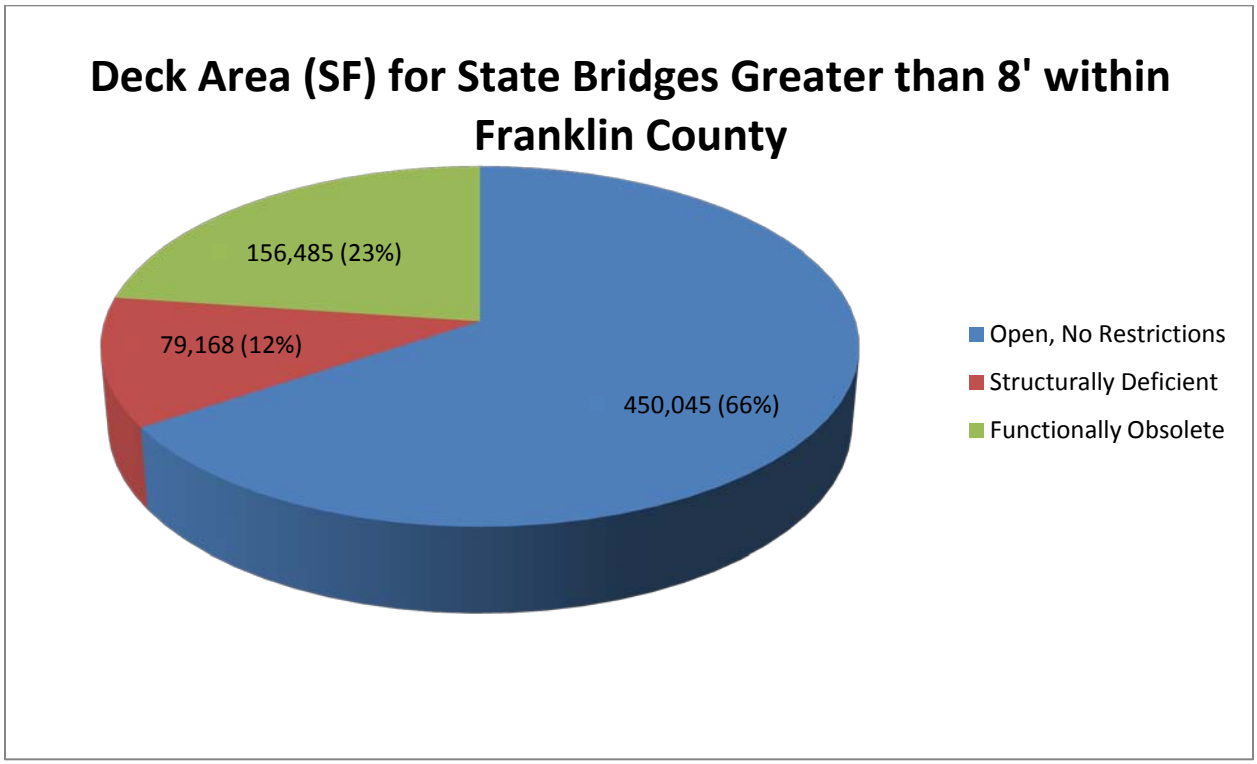


Figure 20: Posted State-owned Bridges

Location	Feature Intersected	Number of Spans	Year Built	Year Reconstructed	Length (feet)	Post Status	Structurally Deficient	Functionally Obsolete
1 mile NE of Orrstown Borough	Muddy Run	3	1940	0	192	Posted for other restrictions	Yes	No
Cove Gap	Buck Run	1	1934	0	21	Posted for other restrictions	No	Yes
0.75 mile E of Turkey Foot	Conococheague Creek	2	1860	0	76	Posted for Load	No	Yes
At Concord	Tuscarora Creek	2	1934	0	67	Posted for Load	Yes	No

Of the 90 locally-owned bridges with a total length greater than 20 feet, 11 percent (10) are SD and 22 percent (20) are FO (Figure 21: Local Bridges in Franklin County). In terms of bridge deck area (square feet), 11 percent of the local bridge deck area is classified as SD in Franklin County (Figure 22: Local Bridges in Franklin County by Deck Area). In comparison to locally-owned bridges in District 8-0, the county has less of a share of SD bridges, with 11 percent compared to 23 percent for the District. The county also has a more favorable share in SD deck area, with 11 percent compared to 21 percent for the District. Six local bridges are posted for weight restrictions and one is closed (Figure 23: Posted and Closed Local Bridges).

Figure 21: Local Bridges in Franklin County

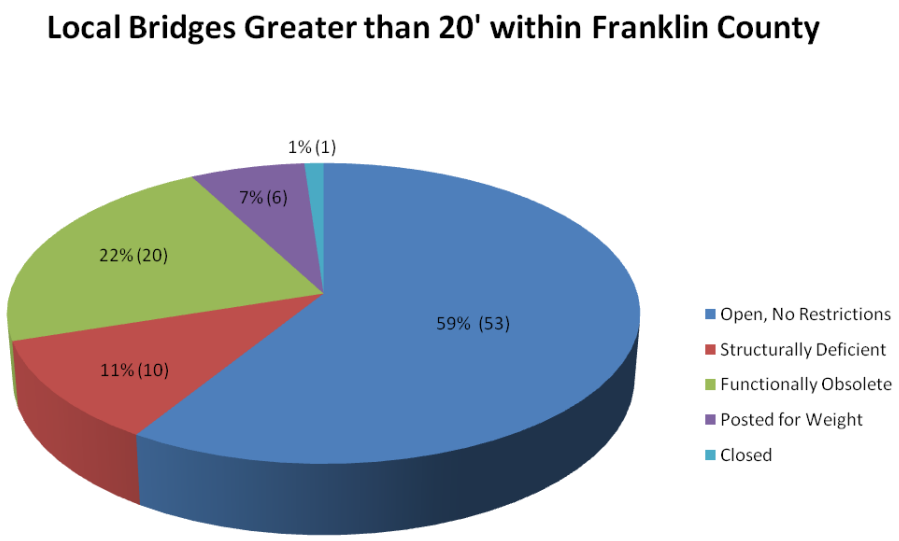


Figure 22: Local Bridges in Franklin County by Deck Area

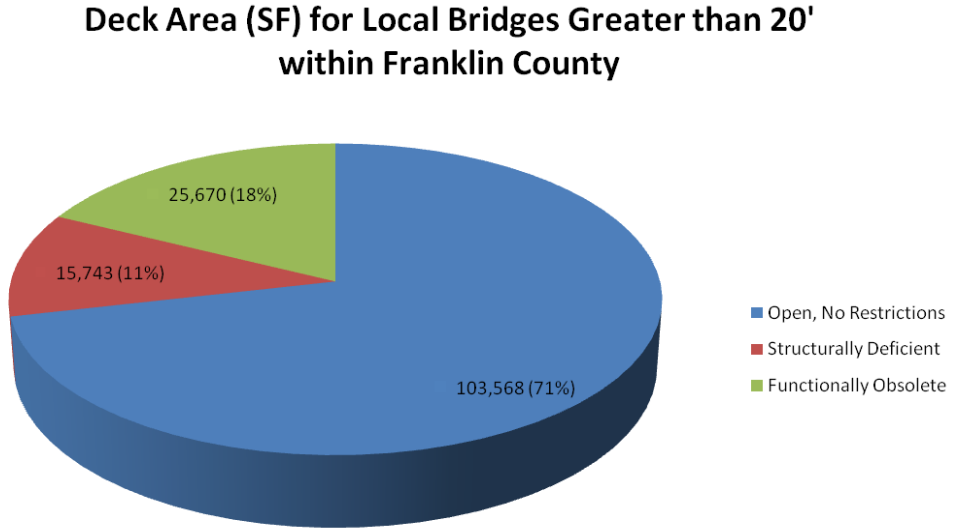


Figure 23: Posted and Closed Local Bridges

Location	Feature Intersected	Number of Spans	Year Built	Year Reconstructed	Length (feet)	Post Status	Structurally Deficient	Functionally Obsolete
1 mile NE of SR 4006	Conococheague Creek, West Br	1	1930	1972	36	Posted for Load	Yes	No
2.3 miles SE of SR 641	Conodoguinet Creek	1	1885	0	109	Posted for Load	Yes	No
0.7 mile N of SR 416	Licking Creek	1	1883	1957	74	Posted for Load	No	Yes
3.5 SE Mercersburg/ Conococ	Conococheague Creek, West Br	2	1904	1963	130	Posted for Load	No	Yes
1 mile SW of SR 4010	Wilson Run	1	1962	0	33	Posted for Load	No	No
Back Creek; Williamson	Back Creek	1	1876	0	119	Closed Bridge	Yes	No
1.8 SE Waynesboro/ Red Run	Red Run	1	1935	1984	36	Posted for Load	Yes	No

Trends

Recent roadway travel and safety trend data (2006 to 2010) for Franklin County was obtained from PennDOT's annual Highway Statistics Reports and crash statistics. This analysis evaluated DVMT, means of travel and crash data over the five-year period.

Travel

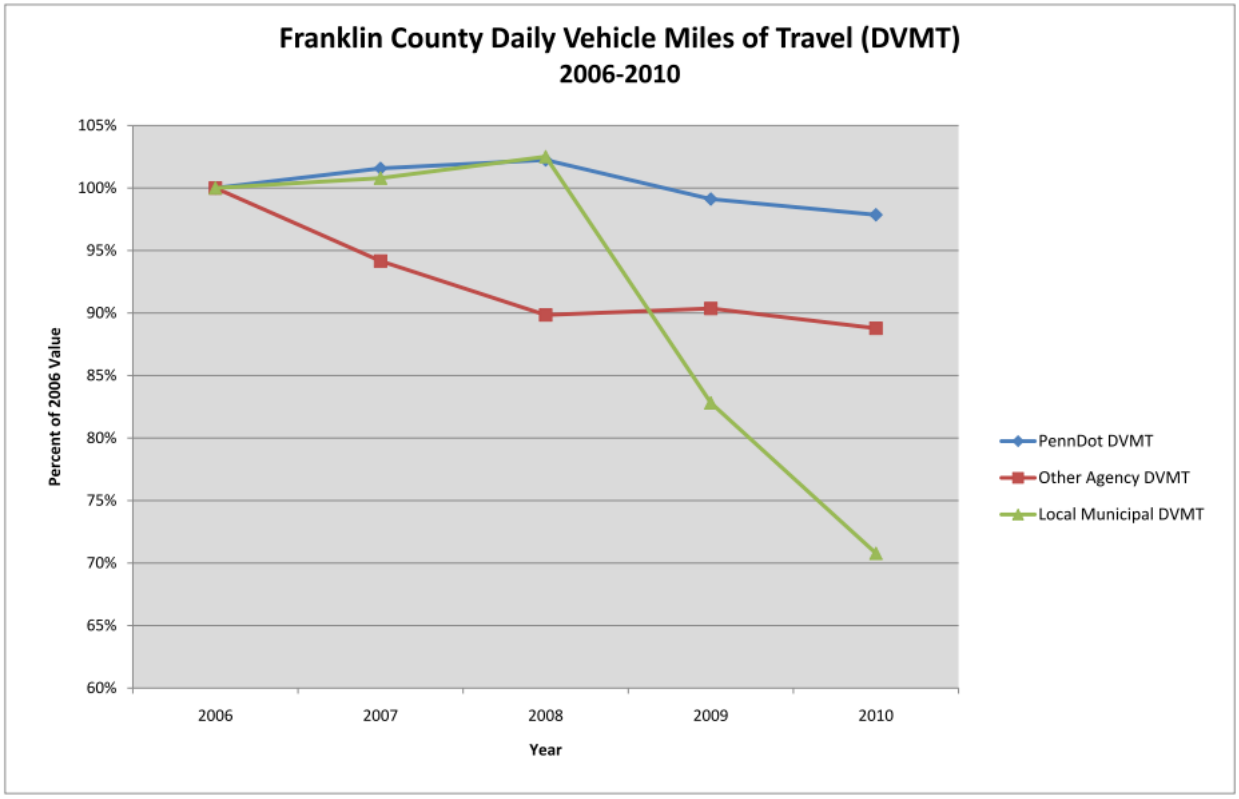
Data from the PennDOT Highway Statistics Reports (2006 to 2010) show the DVMT by functional classification and the total DVMT for each year. The DVMT by functional classification for the five-year period is shown in Figure 24: DVMT by Functional Classification. The local and interstate DVMT experienced the greatest drop in DVMT at 29 percent and 11 percent, respectively. The average total linear DVMT for the five-year time period was 4,185,032.

Figure 24: DVMT by Functional Classification

Record Year	Federal Aid DVMT					Non-Federal Aid DVMT		Total Linear DVMT
	Interstate	Other Frwy/ Expwy	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	
2006	1,678,245	0	446,106	749,896	585,602	242,513	660,103	4,362,465
2007	1,580,192	0	450,774	763,955	595,325	245,844	665,330	4,301,420
2008	1,507,837	0	440,497	766,229	612,815	249,968	676,664	4,254,010
2009	1,516,551	0	453,919	708,827	614,920	228,537	546,653	4,069,407
2010	1,489,925	0	443,262	716,221	602,155	219,080	467,212	3,937,856
Average	1,554,550	0	446,912	741,026	602,163	237,188	603,193	4,185,032

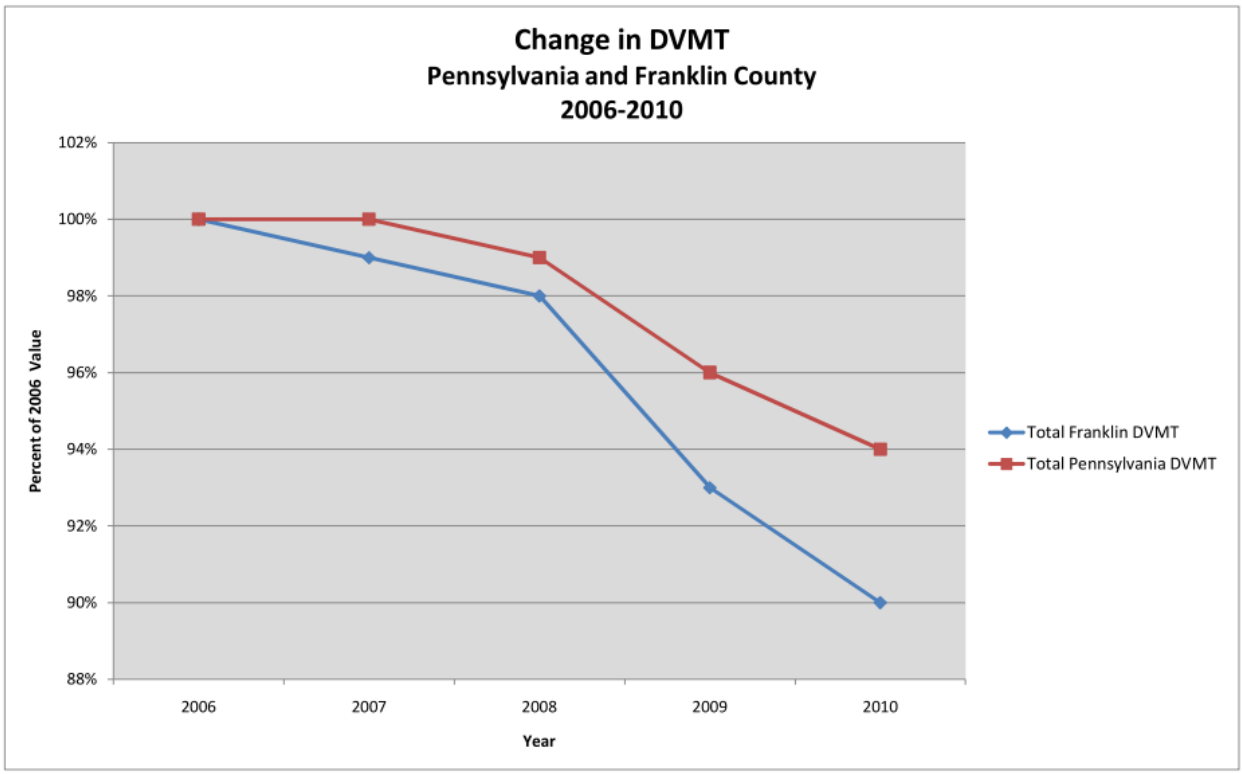
Figure 25: Change in DVMT by Ownership shows the DVMT for Franklin County as a percent of the 2006 value. Overall, DVMT has dropped over the 2006 to 2010 time period. DVMT on the local road system shows the most significant reduction in DVMT with a 30 percent drop between 2006 and 2010. DVMT on PennDOT-owned roadways and other agency-owned routes, such as the Pennsylvania Turnpike, also declined; however, the drop in DVMT has been less severe.

Figure 25: Change in DVMT by Ownership



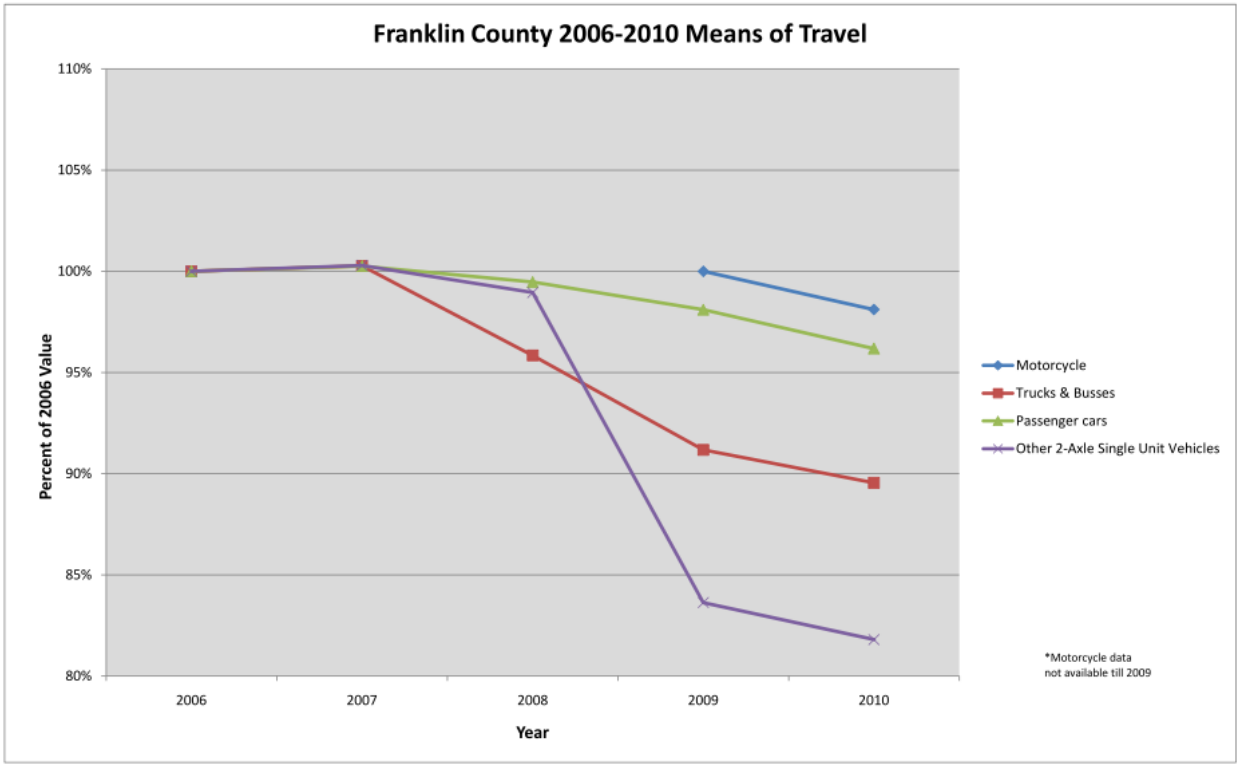
The recent decrease in DVMT from year to year in Franklin County is similar to the decrease in DVMT for Pennsylvania. However, the county experienced a greater decline between 2008 and 2010. Pennsylvania DVMT in 2010 had decreased by 6 percent compared to 2006, while Franklin County DVMT dropped 10 percent. Figure 26: Change in DVMT for Franklin County and Pennsylvania illustrates this change in DVMT.

Figure 26: Change in DVMT for Franklin County and Pennsylvania



Information on the means of vehicular travel is provided in Figure 27: Change in Means of Travel. This graph illustrates how the use of various types of vehicles (motorcycles, trucks and buses, passenger cars, and other two-axle single unit vehicles) has changed compared to 2006. Use of all the vehicular means of travel has declined, with “other two-axle single unit vehicles” (vans, pick-up trucks, and sport/utility vehicles) showing the most significant decline between 2008 and 2009.

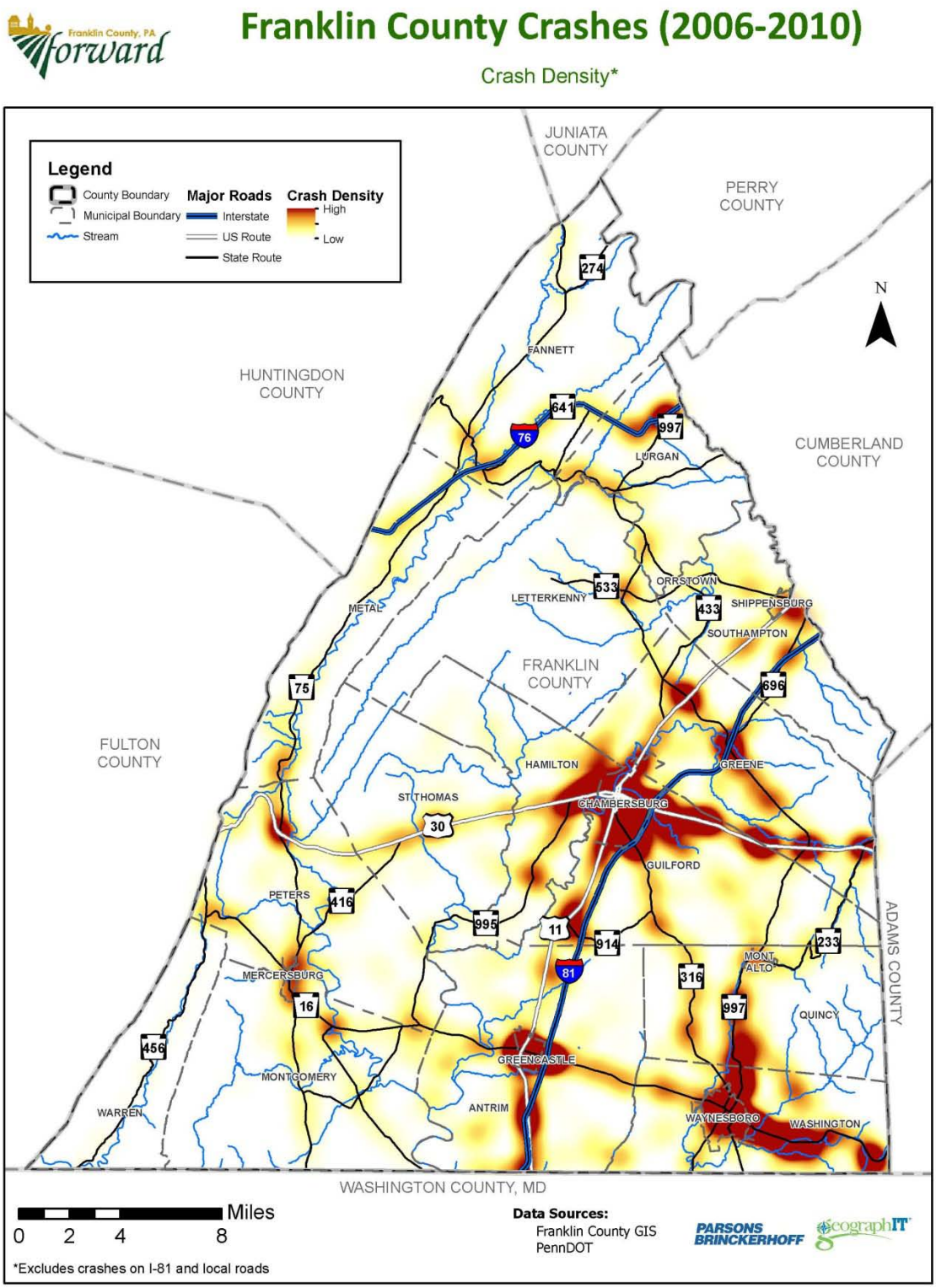
Figure 27: Change in Means of Travel



Safety

A countywide crash analysis was conducted using PennDOT crash data for the five-year period of 2006 to 2010. The analysis allowed the project team to identify potential trends that may indicate safety concerns. Crashes during this time period appear to commonly occur at signalized intersections. The traffic signal system in Franklin County is concentrated within the Borough of Chambersburg, along Route 30, and Route 16 in the boroughs of Greencastle and Waynesboro. Angle and rear-end crashes are the two most common types of crashes on these corridors. Figure 28: Crash Density Map is a “hot spot” crash map illustrating the general location and density of reported crashes.

Figure 28: Crash Density Map



Overall, the number of crashes per year in Franklin County decreased from 2006 to 2010. In 2006 there were 1,613 reported vehicular crashes; by 2010 that number decreased by 13 percent to a total of 1,397 vehicle crashes. The number of fatalities has remained fairly constant at an annual average of 21 fatalities; however, the number of alcohol-related deaths increased from 2006 to 2010. On average in comparison to District 8-0, Franklin County accounted for 7.5 percent of the District's crashes and 9.8 percent of fatalities over the five-year period. PennDOT's goal is to reduce the average fatalities and major injuries by 50 percent over the next two decades.

A summary of crashes in Franklin County and Pennsylvania, including driver or occupant fatalities, pedestrian fatalities, alcohol-related fatalities, and percent of crashes where the occupants wore seat belts, is provided in Figure 29: Franklin County Crash Statistics. In 2012, PennDOT introduced the concept of high crash corridors eligible for Highway Safety Improvement Program (HSIP) funds. Approximately 20 miles along Route 30 have been identified as a high crash corridor for the Franklin County RPO/MPO.

Figure 29: Franklin County Crash Statistics

Year	Crashes		Deaths		Pedestrian Deaths		Alcohol-Related Deaths		Seat Belt Used in Crashes	
	Franklin County	PA	Franklin County	PA	Franklin County	PA	Franklin County	PA	Franklin County	PA
2006	1,613	128,342	23	1,525	2	170	7	545	77%	73%
2007	1,608	130,675	37	1,491	3	155	11	535	80%	75%
2008	1,490	125,327	21	1,468	1	142	8	534	82%	76%
2009	1,415	121,242	19	1,256	0	136	8	449	84%	77%
2010	1,397	121,312	22	1,324	0	148	13	459	83%	77%
Average	1,505	125,380	24	1,413	1	150	9	504	81%	76%

Freight

Overview

Franklin County boasts a geographical advantage for the freight logistics industry, which currently provides thousands of jobs for county residents and is expected to grow as the area's multimodal transfer capacity increases. While the current modal mix of freight movement is dominated by trucks, rail freight movements will likely become more significant as rail network improvements throughout the region and nation are implemented. Further, the CSX Intermodal Terminal and the completion of the Norfolk Southern (NS) Regional Intermodal Facility in 2012 will significantly increase the importance of Franklin County in the national logistics chain.

Trucks move the great majority of freight (both in terms of tonnage and value) within Franklin County, illustrating the importance of the county's highway network. Interstate 81 bisects Franklin County and is the primary route for freight traffic originating in, destined to, or passing through the county. "Last-mile" connections to major freight origins and destinations remain a significant concern for the county, especially the mix of heavy trucks with passenger cars and other local trips passing near I-81.

Issues and Opportunities

Given the expected growth of the logistics industry in the region, Franklin County should leverage existing strengths and enhance areas where improvements are needed. Local stakeholders noted that a key concern within the county is the need to improve last-mile connections between major routes such as I-81 and major freight and intermodal facilities. As freight traffic grows, ensuring that impacts to local traffic flows are minimized is critical to fostering a positive and productive relationship between the logistics industry and local residents.

While freight traffic along I-81 is significant, few opportunities for truck parking were identified within the county. Further, those locations are currently over capacity, indicating that a market exists for increased truck facilities in the region.

As freight-related development and redevelopment opportunities arise, they should be focused near existing and planned intermodal terminals. Additionally, these developments should include appropriate supporting infrastructure improvements linking properties with the county's major highway network.

In order to generate future private investment within Franklin County, local officials should work to market the county as a major distribution center for goods destined to New England, New York, Philadelphia, Baltimore, or Washington, D.C. This includes focusing on inherent advantages that already exist in the county, including location, doublestack clearance, existing public/private partnerships, and competing railroads that may provide for lower operating costs.

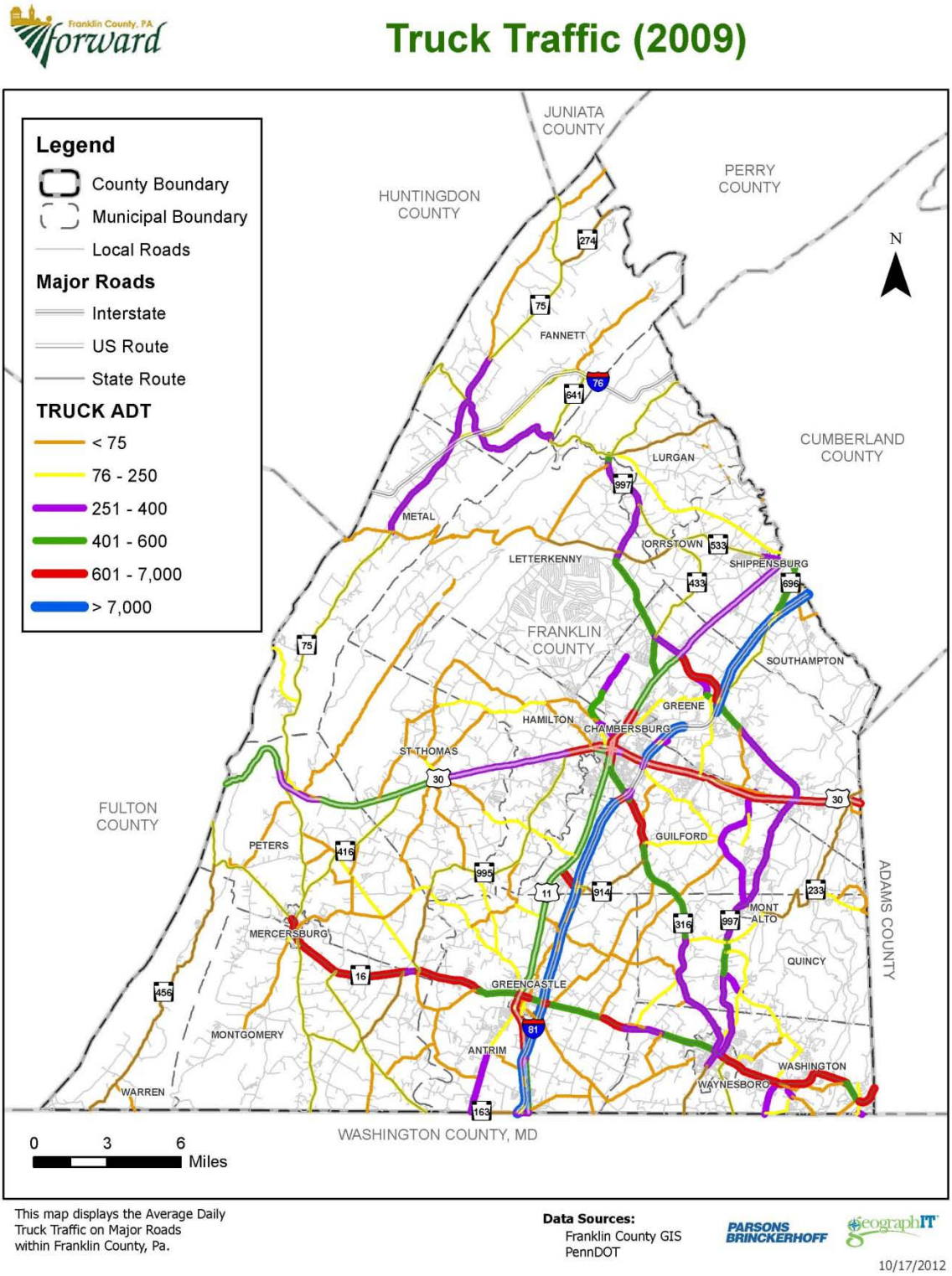
Finally, the county should work with the I-81 Corridor Coalition to continue advancing a regional approach to improvements along the I-81 corridor, including those specifically focused on freight.

Inventory

Two interstate highways traverse Franklin County, providing north-south (Interstate 81) and east-west (Interstate 76) circulation, placing the county in an optimal location within a day's drive of Pittsburgh; Philadelphia; Baltimore; Washington, D.C.; Allentown/Bethlehem; New York City; and Norfolk. Other major routes that serve freight movement within Franklin County include US Routes 11 and 30, which serve local north-south and east-west trips, respectively.

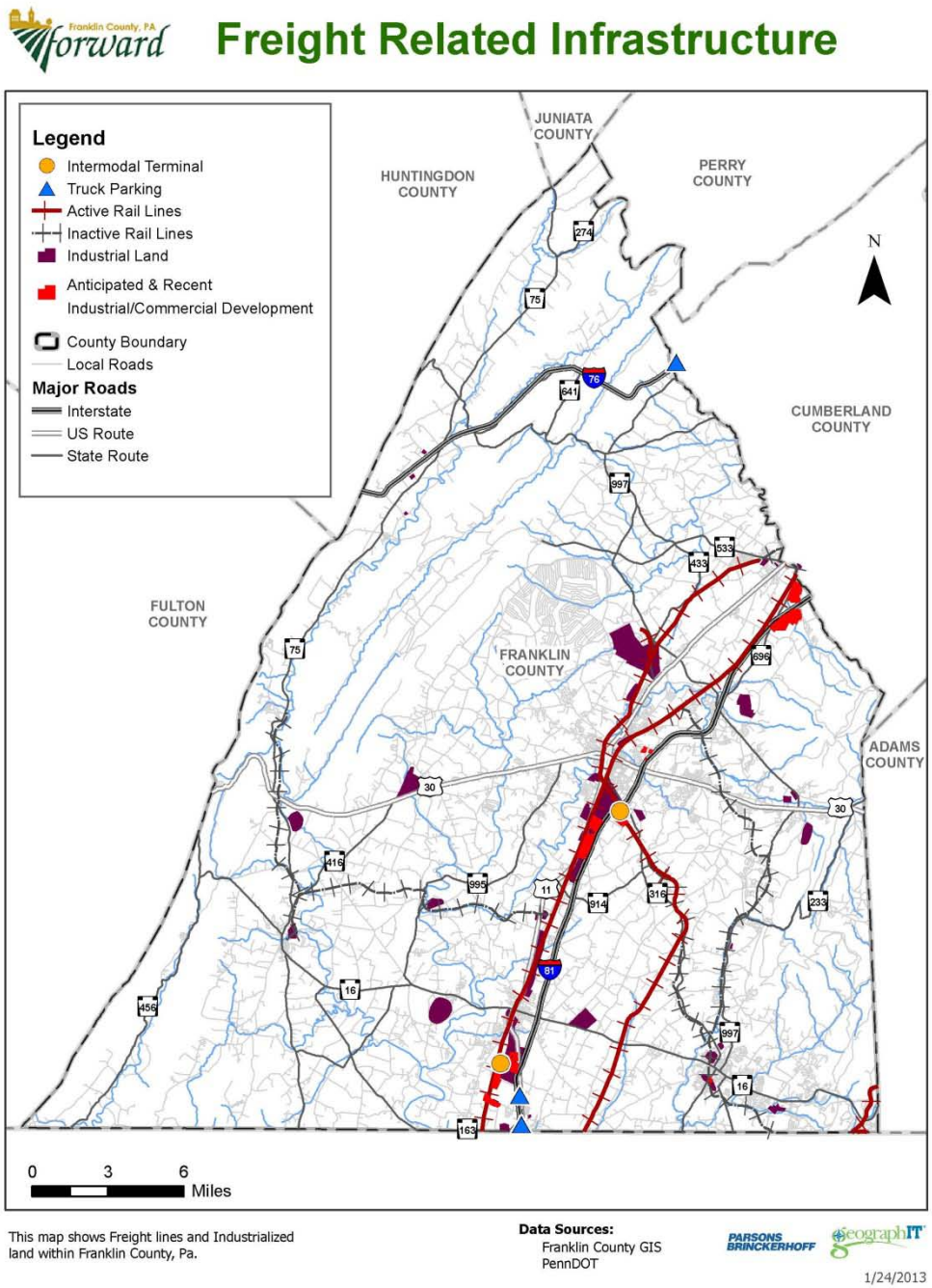
A review of PennDOT traffic volumes and truck percentages indicates the importance of I-81, which has the highest truck volumes in the region, ranging between 10,200 to 11,300 ADT (Figure 30: Franklin County Truck ADT). The highest volumes of I-81 truck traffic are located south of Route 16. Further, US 30, US 11, and SR 16 also carry relatively high volumes of truck traffic, illustrating the many connections made between I-81 and freight facilities or destinations located within the county.

Figure 30: Franklin County Truck ADT



Three active rail lines currently function within Franklin County. The two most significant routes are the Hagerstown Secondary Line (NS) and Lurgan Subdivision (CSX), while a third rail line (Pennsylvania and Southern) links CSX to the Letterkenny Army Depot. Figure 31: Rail and Freight Facilities identifies the location of these rail lines and other existing freight-related infrastructure.

Figure 31: Rail and Freight Facilities



Trends

Future developments in Franklin County are expected to focus on the I-81 corridor, leveraging the existing highway and rail infrastructure and expanding current and planned freight hubs in the region. Much of this growth is being driven by freight-related investments, including the recently completed NS Regional Intermodal Facility. As the cost of fuel remains high, some goods movements have shifted from truck to rail, necessitating investments into rail, including the NS Crescent Corridor and CSX Intermodal Terminal in northwest Ohio.

These investments will allow Franklin County to increase its presence in the goods movement industry, and as improvements are completed, subsequent job growth within the county is expected. A secondary benefit of the shift from truck to rail is an overall reduction in emissions, as one train can carry approximately the same amount of cargo as 280 trucks.

Several nationally recognized retailers maintain large distribution facilities within Franklin County, illustrating the important role that the region plays in the logistics chain. Figure 32: Top Logistics Employers in Franklin County identifies these companies, which include Target, Food Lion, K-mart, and Staples, each of which employs several hundred workers at its facility. Several other companies, including World Kitchen, Ingram Book Company, and National Book Network, also employ several hundred workers in the county.

Figure 32: Top Logistics Employers in Franklin County

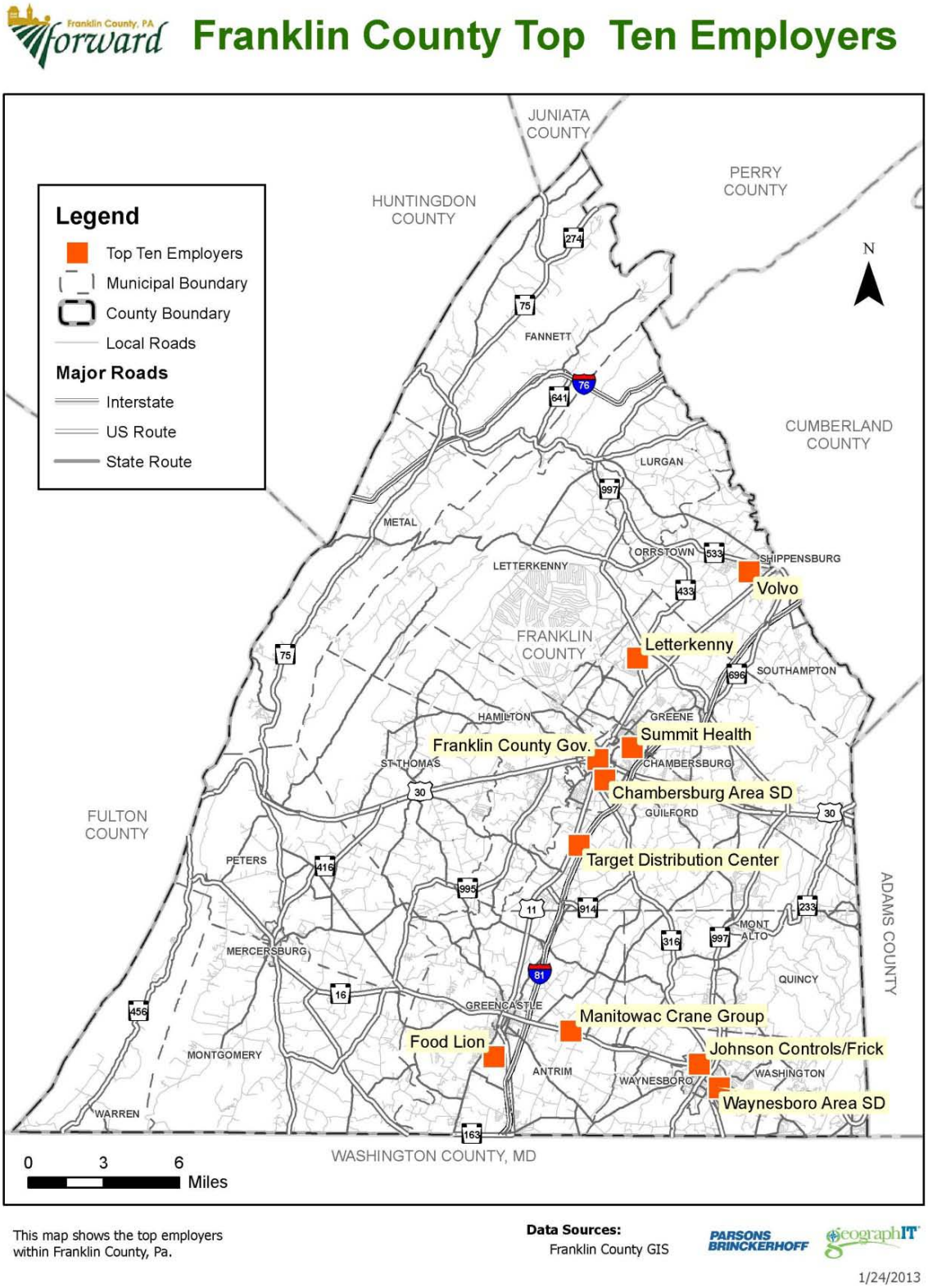
Top Logistics Employers in Franklin County (as prepared by FCADC, Dec 2011)	
Target Distribution Center #589	600
Food Lion, Inc.	600
World Kitchen, LLC	480
Ingram Book Company	350
National Book Network	325
Staples Direct	315
K-Mart Specialty Center	245
Hoffman Transport	130
Ozburn-Hessey Logistics	130
U.S. Xpress Enterprises, Inc.	100

Transit and Ridesharing

Overview

With high automobile ownership rates, a growing population, and a lack of affordable transportation for the general public, the need for transit service in Franklin County is clear. Education on public transit "warrants" (thresholds to be achieved before public transportation can be justified to funding agencies), and operating costs, would be valuable for both the public and elected officials—involvement of commissioners from the beginning is essential. As shown in Figure 33: Franklin County Top Employers, the top employers within the county are located along the I-81 corridor. With local employers such as CSX and NS growing in workforce needs, public transit could provide access to work to more people throughout the county.

Figure 33: Franklin County Top Employers



Franklin County does not have fixed route bus service at the present time; however, other public transportation services exist, including demand response service, private taxi and limousine companies, and charter and tour bus services. In addition to these services, there is one park-and-ride location near Chambersburg, and service from *Commuter Services of Pennsylvania* to provide ridesharing opportunities for people traveling to or from Franklin County for work trips.

Issues and Opportunities

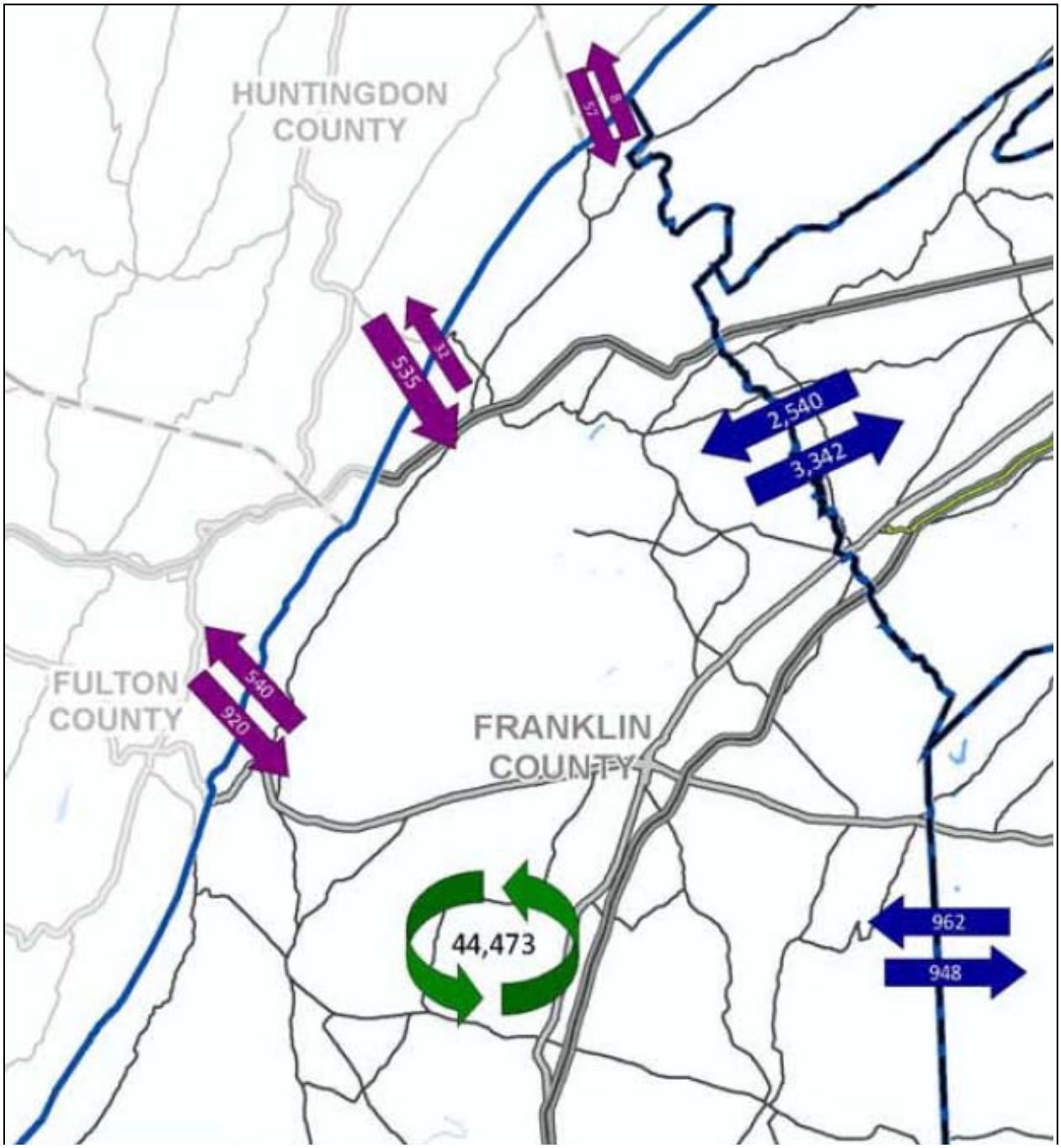
The county previously had fixed-route bus service that served the more populated segments of the county. The Chambersburg Transit Authority (CTA), created in 1991, expanded to include service to Waynesboro in the southern portion of the county in 1997 and operated until July 2004. Low ridership and insufficient funding prompted CTA to stop its operation.[2] Reports from PennDOT's Bureau of Public Transportation (BPT) indicate that ridership on CTA grew by nearly 50 percent while it was in existence, from 61,000 in 2001 to 89,000 in 2003. The agency operated 10 buses with an operating budget of approximately $500,000 in 2003. Buses in Chambersburg ran 12 hours each day Monday through Saturday and six hours on Sunday.

Consequently, there are currently no bus or train connections within the county or inter-county, except one Capital Area Transit (CAT) route #81 that comes close to the county line at Shippensburg to provide bus service to and from Harrisburg. Additionally, the "Maugansville County Commuter" bus route operated by Washington County Transit runs from Hagerstown, Maryland, to the border with Franklin County, near I-81. Maryland Transit Administration (MTA) commuter route #991 runs between Rock Spring Business Park in Maryland and Hagerstown.

The majority of the labor force which resides in Franklin County also works within the county (44,473). Of the commuters who work outside of Franklin County, most commute to Cumberland County (3,342) followed by Adams County (948). There are also a notable number of commuters coming into Franklin County from the surrounding counties of Cumberland (2,540), Adams (962), Fulton (920), and Huntington (535), as shown in Figure 34: Regional Commuter Flow Patterns.

[2] Coordinated Public Transit Human Services Transportation Plan, Franklin County, PA, May 2007, http://web1.ctaa.org/webmodules/webarticles/articlefiles/2007_COORD_PLAN_FRANKLIN.pdf

Figure 34: Regional Commuter Flow Patterns



A significant number of Franklin County residents work in the Hagerstown metropolitan area or other destinations in Maryland. There are 10,269 commuters who live in Franklin County and work in Maryland, while only 3,010 commute from Maryland to Franklin County for work. The share of commuters traveling from Franklin County to Maryland is far greater than to any other surrounding Pennsylvania county (10,269 compared to 5,362).

In comparison to the surrounding counties in Pennsylvania, Franklin County has the lowest percent of commuters using transit (0.3 percent), yet 11 percent of residents carpooled compared to the regional average of 9.6 percent (Figure 35: Commuter Mode Share). This relatively low percentage of public transit use suggests that the lack of public transit service within the county forces residents to seek commuting methods involving the personal automobile (e.g., carpooling).

Figure 35: Commuter Mode Share

County	Transit Share	Carpool Share	Total Commuters
Berks	1.8%	9.4%	190,958
Lebanon	0.5%	9.5%	62,530
Dauphin	2.1%	10.4%	127,508
Perry	0.3%	13.5%	22,028
Cumberland	0.8%	8.7%	113,438
Lancaster	1.2%	9.6%	241,097
York	1.0%	9.1%	209,492
Adams	0.2%	9.8%	50,481
Franklin	**0.3%**	**10.8%**	**67,038**
Regional Average	1.2%	9.6%	-
PA Average	2.5%[1]	9.5%	-

[1] Excludes Philadelphia and Pittsburgh transit figures.
Source: 2005-2009 U.S. Census American Community Survey

Inventory

Demand response service

Franklin County Transportation System is a shared-ride demand response transportation program. It is available to senior citizens, persons with disabilities (PwD), medical assistance clients (through the Medical Assistance Transportation Program (MATP)), mental health/retardation clients (MH/MR), and the general public. Funding is made available through

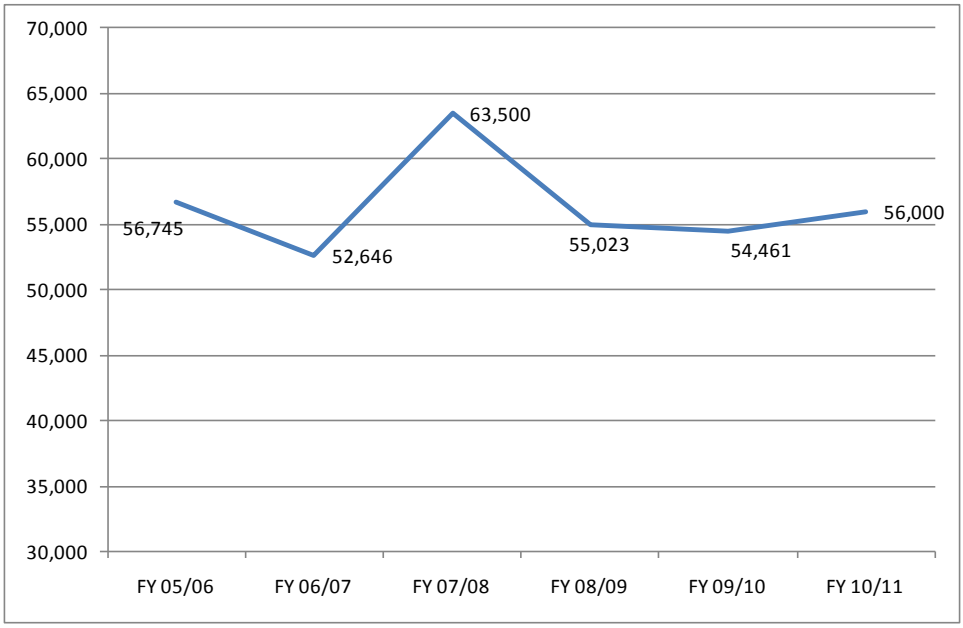
the Pennsylvania Lottery as administered by PennDOT, the Department of Welfare, cooperating agencies, and fares.[3] Transportation service is provided Monday through Friday.

The service is also available to provide senior citizens rides for non-medical trips any day between 10:30 a.m. and 1:30 p.m. Persons with disabilities can use the service to travel to work, medical appointments, and personal errands or outings. For senior citizens, medical assistance clients, and persons with disabilities, the service is either completely or partially subsidized. The list below outlines the one-way fares: [4]

- Senior Citizens: $1.50
- Persons with Disabilities: $2.40
- General Public: $16.00

The agency operates 25 buses and carried 28,592 passengers over the age of 65, and 56,000 passengers of any age, in FY 2010-2011. The number of trips has not changed significantly since 2005, as shown in Figure 36: Annual Ridership on Franklin County Integrated Transportation System.[5] The fleet consists of 12-passenger paratransit vans.

Figure 36: Annual Ridership on Franklin County Integrated Transportation System



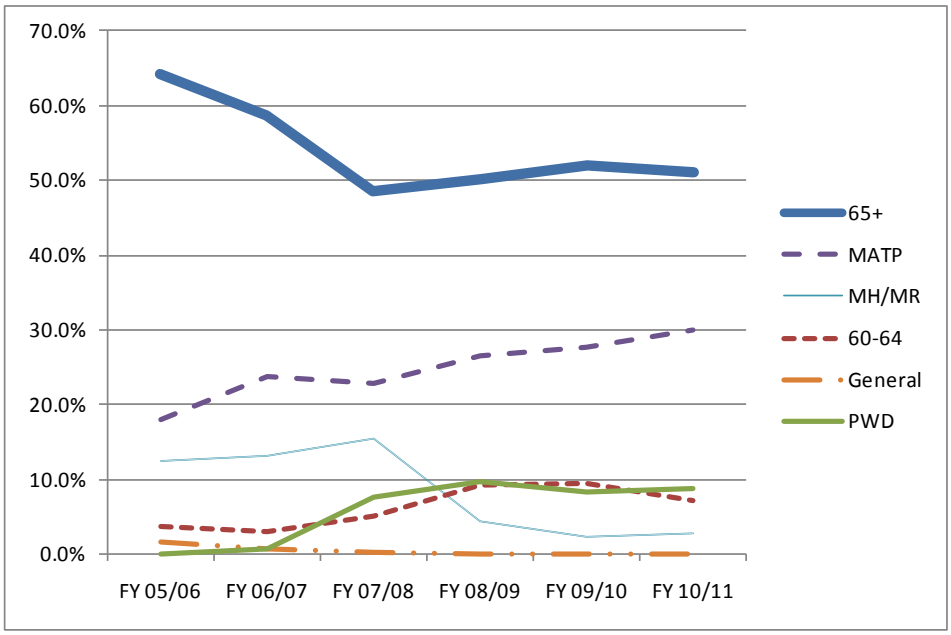
[3] *Ibid.*

[4] http://www.co.franklin.pa.us/Pages/Transportation.aspx

[5] Pennsylvania Public Transportation Annual Report, Fiscal Year 2009-2010

Most passengers using the system are age 65 or older (51.1 percent in FY 2010-2011); however, the number and percent of passengers in this category has been declining since 2005 when nearly 65 percent of the passengers were in this age group. Overall, more MATP passengers have been using the system, increasing from 18 percent in FY 2005-2006 to 30.1 percent in FY 2010-2011. Passengers between 60 and 64 years old, as well as PWD, also accounted for an increase in ridership, increasing to 7.1 percent and 8.9 percent, respectively. Less than one percent of trips are for the general public (Figure 37: Annual Ridership on Franklin County Integrated Transportation Services, by Category).[6]

Figure 37: Annual Ridership on Franklin County Integrated Transportation Services, by Category



Taxicab and limousine services

There are two cab and limousine services in Franklin County: Chambersburg City Cab and Shippensburg Limousine Service.[7] Chambersburg City Cab operates primarily in Franklin County, but as a taxi service takes passengers anywhere as requested. Most of the trips are ordered on the same day and about half of them are to and from Harrisburg International Airport in Middletown, Dauphin County; the remainder of the trips are around Chambersburg, such as trips to the grocery store or appointments.

Shippensburg Limousine Service operates in Cumberland and Franklin counties. The majority of the trips are booked in advance and nearly 90 percent of them are to and from the Harrisburg, Baltimore, or Dulles airports. The remainder of the service is used for special events such as proms and weddings as well as corporate orders.

[6] Based on a phone interview with Franklin County Integrated Transportation Services on September 15, 2011.

[7] Coordinated Public Transit Human Services Transportation Plan, Franklin County, PA, May 2007, http://web1.ctaa.org/webmodules/webarticles/articlefiles/2007_COORD_PLAN_FRANKLIN.pdf

Charter and tour bus services

There are two charter and tour bus services located in Franklin County: D&S Buses Inc. and Ryan Meyers LLC. The majority of buses are used for schools, while some small weekend charter service is available. Most of the charter services are used for special events such as weddings or business meetings.

Rideshare (van/car pools) – Commuter Services of Pennsylvania

Commuter Services of Pennsylvania (Commuter Services) is an organization funded by federal Congestion Mitigation and Air Quality (CMAQ) funds. Through its efforts, Commuter Services works to reduce traffic congestion by helping commuters find transportation alternatives to driving alone, and by reaching out to employers so they can help their workforce find those options.[8] Commuter Services provides services not only to Franklin County residents, but also to residents from other counties (including Maryland) who travel to or through Franklin County for work.

There is a strong interest by employers in South Central Pennsylvania to participate in ridesharing services; 10 employers in Franklin County officially participate in Commuter Services:

- Franklin County Government
- Eldorado Stone
- Johnson Controls
- Knouse Foods
- Letterkenny Army Depot*
- Menno Haven Retirement Communities
- Manitowoc
- Olympic Steel
- Tyco Electronics
- Ozburn Hessey Logistics

*In 2011, 13 federally subsidized 15-passenger vans provided vanpools for Letterkenny Army Depot as part of the Commuter Services ridesharing program.

Most commuters (63 percent) in the ridesharing program who live in Franklin County also work in Franklin County. Of the commuters who work in Franklin County, nearly an equal number come from Franklin County as from outside the county. However, of those who live outside the county, the majority (93 percent) come from locations in Pennsylvania as opposed to the surrounding states of Maryland or West Virginia. Below are the statistics on the labor force using *Commuter Services* in Franklin County.

[8] http://pacommuterservices.com/

Franklin County Statistics for Commuters Using *Commuter Services of PA*

Total commuters living in Franklin County: 515

- Total commuters living in Franklin and working outside of Franklin County: 188 (37 percent)
- Total commuters in database living and working in Franklin County: 327 (63 percent)

Total commuters in database working in Franklin County: 631

- Total commuters in database working in Franklin and living outside of Franklin County: 304 (48 percent)
    - Total commuters in database living in Maryland that work in Franklin County: 16 (5 percent)
    - Total commuters in database living in West Virginia that work in Franklin County: 5 (2 percent)
    - Total commuters in database living in Pennsylvania but not in Franklin County, that work in Franklin County: 283 (93 percent)

Park-and-ride facilities

There is one formal park-and-ride facility in Franklin County—a carpooling location at I-81 and Route 997 near Chambersburg. The facility provides daily commuters with 75 parking spaces and typically reaches an 80 percent capacity level.

Trends

The lack of available public transportation and the rural context of the county suggest that most people use a private automobile to reach their destinations. According to the U.S. Census Bureau's American Community Survey, 84 percent of residents drove alone to work in 2009 versus 80 percent in 2005. Carpooling declined from 13 percent to 8 percent over the same time frame. Figure 38: Commute to Work Data summarizes this information.

Figure 38: Commute to Work Data

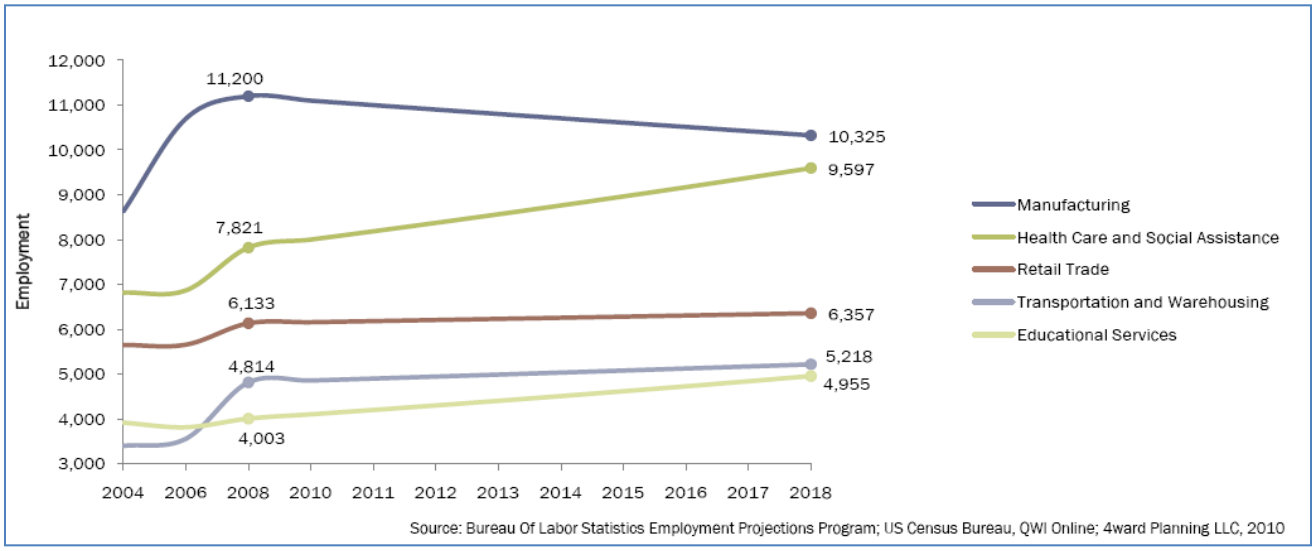
						Percent of Total		Change
	2005	2006	2007	2008	2009	2005	2009	2005-2009
Total	**65,163**	**69,192**	**67,778**	**70,393**	**63,151**			
Drove Alone	52,039	55,932	53,594	57,184	53,035	80%	84%	2%
Carpooled	8,300	7,799	8,783	7,953	4,999	13%	8%	-40%
Public Transit	71	199	267	261	80	0%	0%	13%
Walked	1,518	2,204	1,396	2,315	1,869	2%	3%	23%
Other Means	590	691	1,154	744	599	1%	1%	2%
Worked at home	2,645	2,367	2,584	1,936	2,569	4%	4%	-3%

Source: U.S. Census American Community Survey

Using employment sector projections from the Bureau of Labor Statistics and assuming Franklin County industries follow national growth trends, total employment in the top 10 industries is projected to grow by nine percent over the 2008 to 2018 time period—an increase of nearly 5,000 jobs as shown in Figure 39: Employment Sector Projections.[9] Consistent with the age distribution changes over the next decade, most of the increase in employment will occur in health care and social assistance services. The provision of alternative commuting options to the single occupancy vehicle should be considered.

[9] Franklin County Market Analysis, Prepared For Environmental Planning & Design, LLC, 4WARD PLANNING, January 7, 2011

Figure 39: Employment Sector Projections



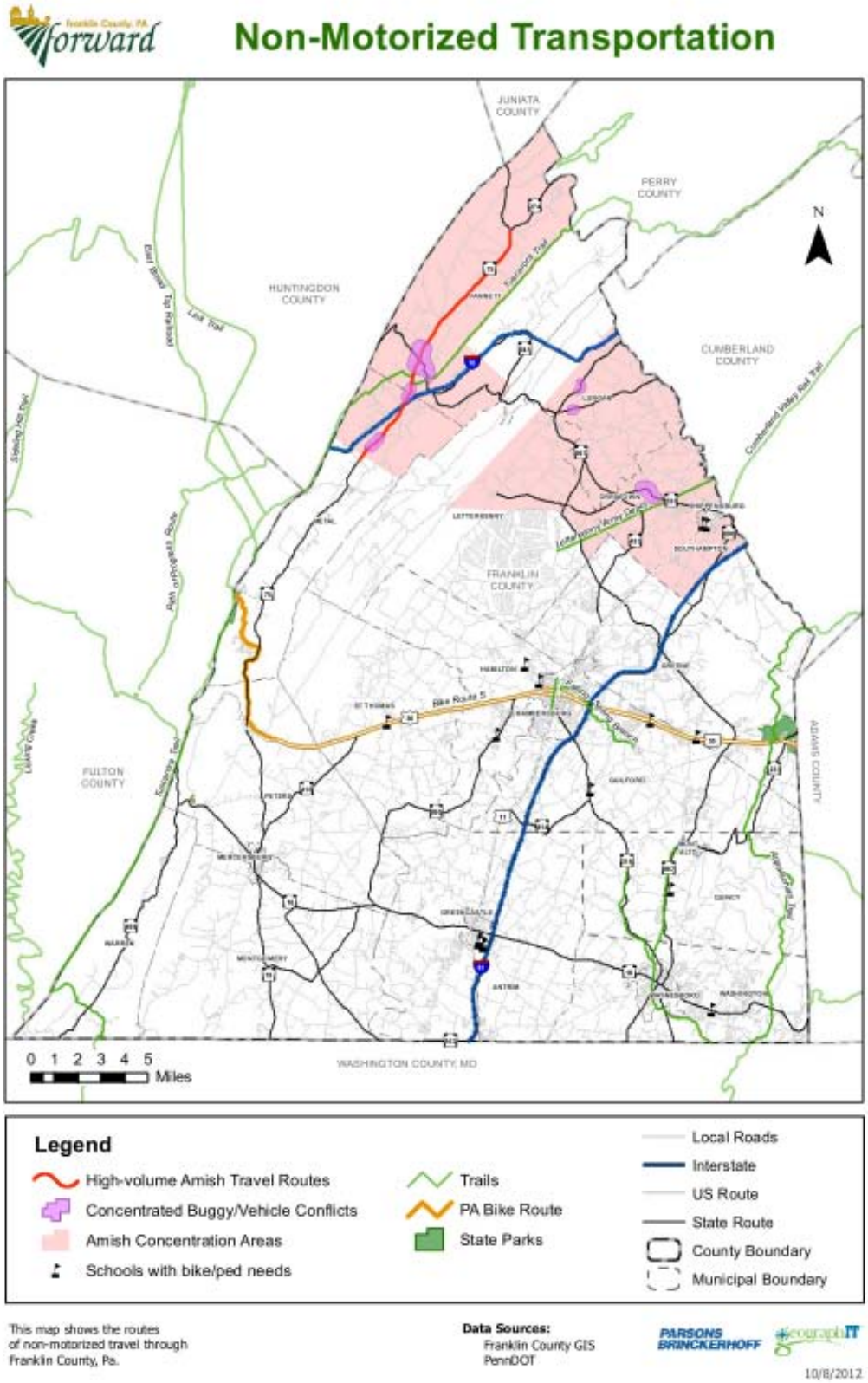
While population is projected to increase in Franklin County from 2010 to 2025, the share of traditional working age residents (20 to 64 years old) is likely to remain constant. However, population over 65 years old is expected to experience the largest increase. This suggests that most future transportation planning efforts should concentrate not only on the commuting patterns but also on providing additional needed transportation services to older individuals as well as other adjustments to the transportation system such as signage, lighting, pedestrian crossings, etc.

Non-Motorized

Overview

Franklin County boasts a multitude of natural and built resources for bicyclist, pedestrian, and horse and buggy use. In Franklin County's densest communities, pedestrians can walk along sidewalks and cross at numerous crosswalks and signalized intersections. Bicyclists can take advantage of Bicycle Route "S" that traverses the entire county as well as the existing grid street network in the county's densest communities. Numerous recreational trails travel throughout the county, including nationally-recognized hiking and bicycling destinations. In northwestern Franklin County, where buggy traffic is heaviest, varying levels of accommodation exist along the county's roadway network, mainly in the form of wide shoulders. Figure 40: Non-Motorized Transportation Map identifies the location of these non-motorized facilities.

Figure 40: Non-Motorized Transportation Map



The sidewalk and crosswalk networks that exist within the county's most dense communities (Chambersburg, Waynesboro, Greencastle, Mercersburg, and Shippensburg) provide pedestrian circulation between residential areas and major destinations, including parks, schools, and shopping areas. However, busy highways can be barriers to pedestrian movement. For these locations, especially those along US Route 30, pedestrians should be provided with highly visible crosswalks, adequate crossing times at signalized intersections, and separation from traffic where possible.

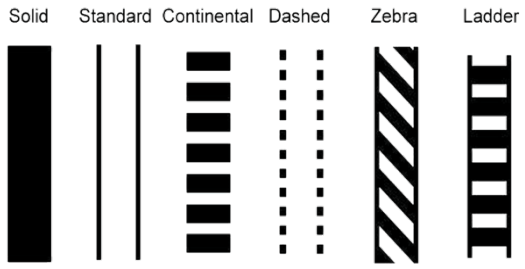
On-road bicycle routes are not as prevalent throughout the county, though Pennsylvania State Bicycle Route "S" bisects the county primarily along US Route 30, with the exception of the western section within Franklin County, where it crosses SR 75 (Path Valley Road) and Richmond Road before entering Fulton County.

Recreational trails traverse the county, primarily in southeastern Franklin County via the Appalachian Trail, and along the western border of the county (with Fulton County) via the Tuscarora Trail. These trails are nationally-recognized destinations for hiking and bicycling and attract numerous visitors from within and outside of Franklin County. Numerous other trails provide local communities with recreational assets that take advantage of the county's topography.

Issues and Opportunities

Improvements for pedestrians and bicyclists should focus on lower cost but highly-effective implementable projects, including enhanced signing, striping, and connectivity. Pedestrian improvements should focus on improved crossings near pedestrian traffic generators on the most heavily traveled routes within the county. At locations where higher pedestrian traffic volumes are expected, higher visibility crosswalks (Continental, Zebra, or Ladder styles illustrated in Figure 41: Crosswalk Types[10]) should be considered.

Figure 41: Crosswalk Types



Numerous crosswalk striping types are available to differentiate areas where highly visible crossings are appropriate.

Further, given the number of highly worn crosswalks within Franklin County, new crosswalks should be striped using longer-lasting Thermoplastic materials. Advance warning signage along

[10] Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations Final Report and Recommended Guidelines: FHWA-HRT-04-100, September 2005

the most highly traveled routes should be considered. For example, a motor vehicle traveling along Potomac Street entering downtown Waynesboro from the south is given no visual cues that pedestrians may cross the roadway until the vehicle has reached a crosswalk. Potential improvements may include the installation of “Crosswalk Ahead” (MUTCD W11-2/W16-9P), or in-street “Yield to Pedestrian” (MUTCD R1-6) signage.

Bicycle improvements should focus on improving overall connectivity for major trip generators. Bicyclists can be encouraged to use the existing grid networks in the most densely populated areas within the county to reduce interactions with vehicular traffic on heavily traveled state highways. Wide, bicycle-compatible shoulders should be provided along major connecting routes where practicable, and “Share the Road” signage (MUTCD W11-1/W16-1P) can be installed to inform motor vehicles of the potential for bicycle traffic along these routes.

A feasibility study for walking and bicycling opportunities in the Montgomery Township, Peters Township, and Mercersburg communities, *The Montgomery, Peters, Mercersburg Connection (MPMC)*, was completed in August 2012. This study recommends a network of sidewalks, paths, trails, and use of existing low-volume roads to provide safe and convenient walking and/or bicycling access within and between the three municipalities. A four-phase implementation plan identifies improvements to facilitate non-motorized transportation through a network of walking and biking routes to connect people with area schools, local attractions, and popular surrounding destinations.

Other future bicycle or pedestrian improvements should focus on schools throughout the county where surrounding residential density is greatest and existing connections are insufficient to meet potential demand. The county can investigate grant and reimbursement programs to fund potential improvements, including the Safe Routes to School (SRTS) program, which aims to provide funding for targeted improvements focusing on safety.

In addition, the Greene Township Trail Feasibility Study, completed in January 2013, analyzed the potential connection of the Chambersburg Rail-Trail; existing multi-use trails in adjacent Guilford Township; and several bicycling, equestrian, and hiking trails (including the Appalachian Trail) within Caledonia State Park and Michaux State Forest. The study recommends the implementation of an 18-mile-long multi-use trail through Greene Township, primarily along the Conococheague Creek, to create a complete trail system by connecting the existing Chambersburg Rail-Trail with Caledonia State Park.

Improvements to key buggy routes within the county may include providing widened shoulders for slower traffic or the removal or reduction of vertical crest curves. Appropriate signage (MUTCD W11-14) has already been installed along some of these routes, but further installation of these signs at locations where buggies are most at risk can be an effective way to reduce potential crashes.

"Crosswalk Ahead" signage: MUTCD W11-2 (top) and W16-9P (bottom)

Buggy signage already installed along many of Franklin County's rural routes.

Horse-Drawn Vehicle signage: MUTCD W11-14

In-street "Yield to Pedestrian" signage: MUTCD R1-6

"Share the Road" signage: MUTCD W11-1 (top) and W16-1P (bottom)

Inventory

Using aerial photography, the project team performed a general review of pedestrian conditions in the vicinity of schools within Franklin County based on readily available data sources. This included a review of the general surroundings of the school to determine whether or not pedestrian or bicycle connectivity would be expected. Locations classified as "rural" include those where few non-motorized school-based trips would be expected. "Suburban" schools are those which would have a limited number of non-motorized school-based trips from adjacent residential areas, but few trips beyond short lengths. "Small Town" schools are urban in character but have small numbers of residents from which to draw pedestrian or bicycle trips. Finally, "Urban" schools generally exist within a traditional network with a large number of residential areas to draw users from. Schools highlighted in Figure 42: Walking and Biking Connectivity to Schools and Figure 40: Non-Motorized Transportation Map should be considered for priority improvements, given the potential to serve walkers or bicyclists from adjacent residential neighborhoods.

Figure 42: Walking and Biking Connectivity to Schools

School	Municipality	Context	Connectivity	Other
Chambersburg Middle School North	Chambersburg	Urban	Yes	
Chambersburg High School	Chambersburg	Urban	Yes	
Chambersburg Middle School South	Chambersburg	Urban	Yes	Adjacent signalized intersection
Andrew Buchanan Elementary School	Chambersburg	Urban	Yes	
Franklin County Learning Center	Chambersburg	Rural	No	
Falling Spring Elementary	Chambersburg	Rural	No	
Benjamin Chambers Elementary	Chambersburg	Urban	Yes	
Guilford Hills Elementary	Chambersburg	Suburban	No	Adjacent to US Route 30 / West Main St intersection
New Franklin Elementary	Chambersburg	Rural	Limited	
Marion Elementary	Chambersburg	Small Town	Limited	
Thaddeus Stevens Elementary	Chambersburg	Suburban	No	Located in light industrial area
Montessori Academy of Chambersburg	Chambersburg	Rural	No	
Franklin County Career and Technology Center	Chambersburg	Rural	No	
Cumberland Valley Christian School	Chambersburg	Urban	Limited	
Corpus Christi School	Chambersburg	Urban	Yes	Located on US Route 11
Greencastle-Antrim High School	Greencastle	Urban	Yes	
Greencastle-Antrim Middle School	Greencastle	Urban	Yes	
Greencastle-Antrim Primary School	Greencastle	Urban	Limited	

School	Municipality	Context	Connectivity	Other
Greencastle-Antrim Elementary School	Greencastle	Urban	Limited	
Scotland Elementary School	Greene	Small Town	Yes	
Fayetteville Elementary School	Greene	Small Town	Limited	US 30 is a barrier between school and residential area
Grandview Elementary	Greene	Rural	No	
Hamilton Heights Elementary	Hamilton	Suburban	Limited	
South Hamilton Elementary	Hamilton	Suburban	Limited	
Lurgan Elementary School	Lurgan	Rural	No	
Shalom Christian Academy	Marion	Rural	No	
Mercersburg Academy	Mercersburg	Small Town	Yes	
Mercersburg Elementary School	Mercersburg	Small Town	Yes	
Fannett Metal School	Metal	Rural	No	
Montgomery Township Elementary School	Montgomery	Rural	No	
James Buchanan Middle School	Peters	Rural	No	
James Buchanan High School	Peters	Rural	No	
Mountain View Elementary School	Peters	Rural	No	
Mowrey Elementary School	Quincy	Rural	No	
Nancy Grayson Elementary	Shippensburg	Suburban	Yes	Adjacent to signalized intersection
Shippensburg Middle School	Shippensburg	Suburban	Limited	Adjacent to US 11
Shippensburg High School	Shippensburg	Suburban	Limited	Adjacent to US 11
St. Thomas Elementary School	St. Thomas	Small Town	Limited	
Hooverville Elementary	Washington	Suburban	Limited	Adjacent to state highway
St. Andrew School	Waynesboro	Urban	Yes	Adjacent to state highway
Waynesboro Area	Waynesboro	Suburban	Yes	

School	Municipality	Context	Connectivity	Other
High School				
Waynesboro Area Middle School	Waynesboro	Suburban	Yes	
Summit View Elementary School	Waynesboro	Suburban	Yes	
Fairview Elementary School	Waynesboro	Urban	Yes	

Statewide, Bicycle Route "S" is the longest bicycle route in Pennsylvania, extending 435 miles from West Virginia to New Jersey. Within Franklin County, Bicycle Route "S" travels primarily along US Route 30, with the exception of the section within western Franklin County, which travels along State Route 75 and Richmond Road, as illustrated in Figure 40: Non-Motorized Transportation Map.

The existing roadway profile of US Route 30 offers varying levels of bicycle compatibility, generally via six- to eight-foot-wide shoulders. US Route 30 is generally straight and has few significant grade changes, making it an appealing route for bicyclists. However, several areas along this route may be challenging for bicyclists due to a lack of shoulder or conflicts with cross traffic, including:

- US Route 30 WB at East Main Street (Greene Township)
- US Route 30 WB at West Main Street (Greene Township)
- US Route 30 WB/EB between Spring Valley Road (Guilford Township) and Sollenberger Road (Chambersburg Borough)
- US Route 30 WB/EB between west of Jack Road (St. Thomas Township) and west of Pioneer Drive (St. Thomas Township)

While SR 75 and Richmond Road generally have shoulders of varying widths throughout their designation as Bicycle Route "S," several areas have shoulders of less than four feet, creating challenging conditions for bicyclists. Further, unlike US Route 30 these roads are curvy and traverse rolling hills, making them more suitable for advanced riders.

The Appalachian Trail extends more than 2,000 miles from Maine to Georgia, with a nearly 25-mile segment passing through southeastern Franklin County. Within this section, approximately 10 trailheads exist where parking is provided for visitors to the trail, including a major parking area at Caledonia State Park in Fayetteville. The Tuscarora Trail serves as a parallel branch of the Appalachian Trail, running from Shenandoah National Park in Virginia north through West Virginia, Maryland, and ending

The Chambersburg Rail-Trail is an important route that provides off-road connectivity for bicyclists and pedestrians in Franklin County.

in Central Pennsylvania. Within Franklin County, the Tuscarora Trail runs alongside the western border of the county, adjacent to Fulton County. Trailheads for the Tuscarora Trail are more limited, including those at US Route 30 and SR 16 (Buchanan Trail). Other trails located within Franklin County include those in Caledonia State Park (Charcoal Hearth Trail, Midland Trail, Chambersburg Water Line Trail), trailways associated with the Falling Spring Branch, and the Chambersburg Rail-Trail. Franklin County's robust trails network is illustrated in Figure 40: Non-Motorized Transportation Map.

Trends

The project team analyzed five years of crash data for the years 2006 to 2010, inclusive. While pedestrian crashes were scattered throughout Franklin County, the greatest concentrations of these incidents occurred in Chambersburg and Waynesboro, the highest and most densely populated municipalities within the county.

A review of crashes with respect to key pedestrian generators (schools, parks, existing trails) determined that no locations had four or more recorded crashes, and thus there was no obvious correlation between expected pedestrian/bicycle generators and reported crashes.

One corridor (Potomac Street/SR 316) in Waynesboro was identified as having several reported pedestrian crashes. Potomac Street is generally straight and flat, and given the density of residential and commercial uses along Potomac Street throughout Waynesboro, pedestrian traffic would be expected to be high along this route.

Crashes involving a horse and buggy were reviewed during the five-year analysis period as well, all of which occurred in the northwestern quadrant of the county. As noted on Figure 40: Non-Motorized Transportation Map, the most notable crash cluster occurred along Path Valley Road (Route 75) between Upper Strasburg Road and Big Spring Road, an approximately 13-mile segment. This location was cited by the project steering committee as being a major route for buggy traffic, as it is the only north-south route through northwestern Franklin County. The numerous vertical crest curves in this area can make Path Valley Road a challenging roadway for interactions between motor vehicles and slower traveling buggies.

Aviation

Overview

The Franklin County Regional Airport (FCRA), formerly known as Chambersburg Municipal Airport, is centrally located in Green Township, approximately two miles northeast of the Borough of Chambersburg, Pennsylvania. Green Township has enacted airport hazard zoning in accordance with Act 164 to protect and preserve the aviation facility. Since 2004 the airport has been owned and operated by the Susquehanna Area Regional Airport Authority (SARAA), a multi-municipal authority whose mission is to serve the region by providing high quality, efficient airports and promoting regional economic development. Franklin County Regional Airport is a public use airport and is primarily used by general aviation aircraft. There is no scheduled passenger service at FCRA.

PennDOT's *Economic Impact of Aviation in Pennsylvania Study*, completed in 2011, states that the airport generates more than 30 jobs that represent more than $500,000 in annual payroll taxes and approximately $1.8 million in economic activity within the state.

Issues and Opportunities

In December 2004, SARAA formed a study advisory group to develop an Airport Action Plan. The plan, updated in June 2008, indicates that the airport is currently classified by the Pennsylvania Statewide Airport System Plan (PSASP) as a Limited Functional Level Airport. The PSASP recommends reclassification of FCRA to a Basic Functional Level Airport. The airport will serve general aviation aircraft along with some business, commercial, and military aircraft.

The Airport Action Plan does not expect that the airport will undergo a significant change of operational capability for the 15-year study period from 2005 through 2020. The document provides a long-range plan for development of the airport that is designed to bring the facilities into compliance with existing FAA, state, and local requirements. The recommended improvements identified in the Airport Action Plan are provided in the Action Plan section of this LRTP.

Inventory

The National Plan of Integrated Airport Systems (NPIAS) lists the role of the Franklin County Regional Airport as a basic utility general aviation airport. The NPIAS identifies nearly 3,400 existing and proposed airports that are significant to national air transportation and thus eligible to receive federal grants under the Airport Improvement Program (AIP). The FAA is required to provide the U.S. Congress with a five-year estimate of AIP eligible development every two years. The NPIAS comprises all commercial service airports, all reliever airports, and selected general aviation airports.

Airside facilities at FCRA include a single 3,300-foot-long and 75-foot-wide runway (6-24) laid out in a northeast-southwest direction. Both runway ends have a turnaround. A single-lane 30-foot-wide taxiway provides access from the runway to the aircraft parking ramp and hangar areas.

According to the most recent FAA Form 5010 records, dated November 2011, based aircraft include 13 single-engine and 2 twin-engine planes. Annual operations at FCRA are approximately 12,200, with activities such as recreational flying, agricultural spraying, corporate/business flying, aerial inspections, and various community events. FCRA is home to the only full-service skydiving center in south central Pennsylvania, the Chambersburg Skydiving Center. Lighting consists of stake-mounted Low Intensity Runway Lights (LIRL) with direct burial cable, including threshold lights and low intensity taxiway lighting. The NAVAIDs include an airport rotating beacon and two-box Visual Approach Slope Indicator (VASI) on the left of Runway 24.

Landside facilities include an 1,150-square-foot one-story administration building, nine T-hangar units, and 11,730 square feet of conventional hangar space. Sixteen paved aircraft tie-down spaces and 21 automobile parking spaces are available. The airport is less than five miles from Interstate 81 and access to the terminal building is via Route 11 (Philadelphia Road), then west on Salem Road and south on Airport Road.

Trends

Franklin County Air Service

According to a recent study completed by the Susquehanna Regional Airport Authority's (SARAA's) marketing department, there has been a shift in airport choices from Hagerstown Airport toward the larger hub airports over the last 10 years as Hagerstown has lost air service. Figure 43: Franklin County Business and Resident Air Travel shows the change in preferences of Franklin County travelers from 2000 to 2010.

Figure 43: Franklin County Business and Resident Air Travel

	Year 2000	Year 2010
Tickets Purchased by Franklin County Businesses and Residents	37,100	45,000
Baltimore/Washington International Airport (BWI)	52%	55%
Washington Dulles International Airport (IAD)	10%	26%
Harrisburg International Airport (MDT)	14%	21%
Hagerstown Regional Airport (HGR)	20%	1%

Baltimore/Washington International Thurgood Marshall Airport (BWI)

The Maryland Aviation Administration (MAA) anticipates continued growth at two percent per year for the next 10 years at BWI. MAA is focusing on international markets such as Europe, the Caribbean, and Latin America. Significant change is not anticipated for the domestic carriers.

BWI is an easy access airport with adequate parking facilities for those who choose to drive. There is a project under way to complete a secure connector between the B/C concourses that will eliminate the need to re-enter security in these areas, thereby facilitating passenger movement between concourses.

Washington Dulles International Airport (IAD)

In recent years, Washington Dulles International Airport (IAD) has undertaken an aggressive capital improvement program. International traffic is more likely to see change within the 20-year planning window. The airport is gate-constrained during the early morning and late evening windows when international arrivals and departures are at their peak. The following discusses the various international markets that service Dulles:

1. Europe – Anticipate steady to moderate growth. In Europe, carriers are consolidating and connecting through key cities. This market is not growing as quickly as it had in the past, but steady moderate growth is expected.
2. South America – While Dulles has some flights to this market, other cities, such as Miami, Atlanta, and Houston are better positioned for jumping off into this market.
3. Africa – Dulles is poised for a high percentage of growth on flights to Africa. The capital to capital relationship makes growth to this market from the Dulles service area attractive.
4. Asia – Anticipate more nonstop flights to Asia. India in particular is viewed as a growth market.

Harrisburg International Airport (MDT)

SARAA continues to seek air service development opportunities and recently established a Revenue Guarantee Fund to assist carriers who want to establish new service into Harrisburg International Airport.

Hagerstown Regional Airport (HGR)

Hagerstown Regional Airport currently has year-round air service that offers a commuter connection to BWI four times daily on a nine-seat aircraft. This is a subsidized service through the Essential Air Service Program.

Their approach to future air service is three-fold:

1. Strive to offer a strong regional connection on a minimum twice daily schedule that offers significant national and international connectivity, particularly to the business sector.
2. Expand Seasonal/Leisure service to at least one more destination.
3. Continue to offer a gateway for Corporate/General Aviation service within the region.

Environmental Resources

Transportation projects may impact a variety of natural and human environmental resources. These resources include the built communities we live in, cultural/historic resources, recreational areas, wetlands and water sources, air, agricultural and forested areas, open/green space, and threatened and endangered species. SAFETEA-LU required consultation with the regulatory and resource agencies "responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan." This consultation is to include a "comparison of transportation plans to inventories of natural or historic resources, if available." At the time of development of this LRTP, regulations for the implementation of MAP-21 had yet to be issued.

A federal requirement of the LRTP is to include an environmental overview and identification of potential environmental mitigation activities to restore and maintain the environmental functions affected by the LRTP. Environmental mitigation activities are those actions that are designed to avoid, protect, minimize, or compensate the impacts to the human and natural environment. These activities may take the form of policies, programs, or specific strategies.

Since the LRTP serves as the transportation element of the County Comprehensive Plan, the land coverage, natural resources, and agricultural resources maps in the Comprehensive Plan serve as an environmental overview for the LRTP. These maps help facilitate the identification of areas to avoid and protect as potential transportation improvement projects are proposed for the LRTP and TIP. The Comprehensive Plan identifies a number of strategies for protecting and enhancing Franklin County's human and natural environment. The following strategies are identified in the plan.

- Promote conservation of quality farmland and prime agricultural soils.
- Champion for local land use controls that promote balanced growth and conservation.
- Support revitalization of core communities.
- Work with landowners to ensure prompt and sufficient reforestation of woodlands that have been timbered.
- Support preservation of sensitive natural resources.
- Continue funding of agriculture preservation initiatives.
- Encourage strategies and/or policies that emphasize conservation of existing county character: small towns; rural areas; and positive, memorable views.

NEPA

The National Environmental Policy Act (NEPA) of 1969 mandates federal agencies to use an interdisciplinary approach to identify and consider potential environmental impacts of their actions. Any action that adversely impacts the environment (natural, social, and economic) is required to include mitigation activities to restore and maintain the environment. The transportation project development process includes an analysis of environmental impacts and reasonable alternatives to those actions. The goal of NEPA environmental analysis is to find an alternative that best fulfills the purpose of a project and meets the project's needs, with the least impact to the environment, at a reasonable cost. NEPA is the "umbrella" law that directs the lead governmental agency to consider impacts to environmental resources specifically regulated by other federal and state laws, such as:

- Section 4(f) of the U.S. Department of Transportation Act, which considers impacts to publicly-owned parks and recreation lands, wildlife and waterfowl refuges, and historic properties.
- Section 6(f) of the Land and Water Conservation Fund Act, which considers impacts to grant-assisted public recreation lands.
- Section 7 of the Endangered Species Act, which considers impacts to threatened and endangered species.
- Section 106 of the National Historic Protection Act, which considers impacts to cultural resources.
- Section 404 of the Clean Water Act, which considers impacts to wetlands and waters of the United States.
- State laws such as PA Chapter 93, which sets water quality standards for waters of the Commonwealth.
- The Farmland Protection Policy Act, enacted to prevent the unnecessary or irreversible conversion of prime and unique farmland soils to nonagricultural uses.

Potential Mitigation Measures

Transportation investments within the region can have a direct, indirect, or cumulative impact on the sensitive resources protected under NEPA. In Franklin County, these resources likely include agriculture, surface water, historic resources, and public-owned parks and recreational lands. Consultation with state and federal regulatory and resource agencies is necessary to assist in the identification of potential environmental impacts and mitigation activities. Conducting this consultation during the LRTP development process helps link the transportation planning process with the analysis of potential adverse impacts from individual projects under NEPA during project development.

Transportation Impacts

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.

- *40 CFR SS 1500-1508*

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 and Environmental Impact Statement (EIS) projects), as well as review potential environmental concerns related to projects identified within an LRTP. Presentations of the LRTP and/or project-level impacts are at the discretion of PennDOT. The Franklin County LRTP was presented to the ACM in May 2013 and the following programmatic commitments were agreed to:

- Continue to use the Linking Planning and NEPA (LPN) system to identify land use/agriculture areas and opportunities to avoid, mitigate, and minimize impacts as proposals move from the LRTP to the TIP;
- Work with PennDOT to identify potential wetland banking sites or other mitigation measures identified jointly by the resource agencies and District 8-0;
- Work with the PA Historical and Museum Commission on an approach to cultural and historic preservation and advanced mitigation;
- Investigate opportunities during planning and programming to avoid 4(f) properties for those proposals indicating a potential use of 4(f) properties; and
- 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.

Due to PennDOT's and the MPO's focus on asset management and maintenance first, with little, if any, right-of-way acquisition, the majority of projects identified in this LRTP will likely not require substantial mitigation efforts. Small-scale mitigative actions most likely will occur at proximate individual project locations. Given the environmental priorities in the county as expressed in the Comprehensive Plan (farmland conservation, core community revitalization, and woodland preservation), enhancements to the county's farmland preservation program,

land use planning strategies as expressed in the Action Plan, and woodland preservation/enhancement are the most likely mitigation areas for the LRTP and associated projects.

Land Use Management

The Comprehensive Plan sets forth an important land use and housing goal of fostering the continued livability and success of urban communities and of communities embedded within the rural landscape. The plan identifies various landscapes, or land use patterns, that exist within the county. These landscapes include core communities, suburban non-residential, suburban residential, rural residential, agricultural areas, woodland resources, Letterkenny, and agricultural and woodland corridors. Transportation improvements should respect the land use contexts unique to each of these identified landscapes. The Comprehensive Plan promotes reinvestment in existing communities, siting new development where adequate public infrastructure exists, ensuring access management and land use controls are put in place to establish land use compatibility, preservation of open space and natural resources, and conservation-oriented development.

A countywide build-out analysis was conducted as part of the County Comprehensive Plan effort. This analysis included the evaluation of potentially developable land in the context of anticipated infrastructure patterns. This analysis also considered the patterns of existing land use, zoning, and potential market activity. A future land use and housing plan for 2025 was developed to set forth policy to guide land use and supporting infrastructure decisions for the county. The future land use plan specifically outlines agriculture and woodland corridors along major transportation routes. This plan is illustrated in the Future Land use and Housing Map: 2025 of the County Comprehensive Plan. These mixed-use, rural corridors encompass smaller village centers and include sections of Route 30, Route 316, Route 16, and Route 175. Coordination between the county and municipalities to implement the land use management recommendations in the Comprehensive Plan relating to appropriate development densities, parking, signage, and access management along these corridors is encouraged. In addition, the LRTP Action Plan identifies the Franklin County Planning Commission serving as the primary resource for education and coordination.

Security and Evacuation Plan

MAP-21 identifies the security of the transportation system as a separate planning factor for consideration in the LRTP. The Franklin County Emergency Services Department has developed and maintains a Franklin County Emergency Operations Plan that serves to coordinate hazard mitigation activities. The plan establishes an incident command system to coordinate emergency and evacuation responsibilities among the various emergency responders. The MPO will communicate with the Emergency Services Department to ensure that the plan remains current.

Air Quality

The Clean Air Act Amendments of 1990 (CAAA) require transportation planning and programming to be consistent with air quality goals. States and MPOs (and in Pennsylvania, RPOs) which are considered as nonattainment or maintenance areas must comply with air quality standards. Nonattainment areas are geographic areas that do not meet the federal air quality standards for eight-hour ozone and/or $PM_{2.5}$ (particulate matter less than 2.5 µm in diameter). Maintenance areas are areas that were formally nonattainment but currently meet the federal air quality standards. If no violations of air quality standards have been found, the area is considered to be in compliance or attainment with federal air quality standards. Transportation conformity ensures federal funding from FHWA and FTA is directed to projects that are consistent with air quality standards. Air quality evaluations for an LRTP determine the total emissions projected for on-road mobile sources identified in the plan. This evaluation dictates whether transportation control measures must be implemented to meet conformity standards set by EPA. Franklin County is considered to be a maintenance area for ozone, therefore projects listed in the LRTP must meet air quality requirements.

Action Plan

Planning Strategies

Maintaining a well-integrated land use and transportation approach to overall planning is critical to success in the implementation of the LRTP. This goal was integral in the decision to prepare an LRTP that serves as the transportation element of the broader Franklin County Comprehensive Plan. The focus of the land use element of the Comprehensive Plan is to direct development activity in such a way as to revitalize and enhance existing communities and growth centers, while discouraging sprawl that places an increasing burden on the transportation system and other infrastructure. Furthermore, regulation and management of the land development process may serve as a critical funding tool in securing private dollars in making key transportation and infrastructure improvements. Given the importance of integrated planning, there are a number of recommended broader-scale land use and transportation and infrastructure planning strategies for the MPO to coordinate through FCPC and the county's municipalities as part of the LRTP.

- FCPC should maintain a role as the lead facilitator of land use/transportation strategies that apply throughout the county. Specific strategies that can be adopted at the county and/or municipal level for which FCPC may act as the lead include:
    - Countywide and/or municipal access management ordinances following the guidance provided through PennDOT Publication 574. Development along Route 30 east of I-81 has been completed in such a way as to provide reasonable access management, but adoption of ordinances that are consistent with Pub 574 would enhance the degree of access management and provide consistency across Franklin County. Effective access management can have a significant role in improving the operation of the transportation system.
    - Countywide and/or connectivity ordinances following the guidance provided through PennDOT Publication 731. Preliminary analysis conducted through the planning process revealed the significant number of cul-de-sac and similar type streets that significantly impact the connectivity, both vehicular and non-motorized, of the transportation system. Local connectivity ordinances help manage the operation of the transportation system by providing alternative routes of travel and lessening the burden on arterial streets.
    - Countywide and/or local official map ordinances in accordance with the guidance in PennDOT Publication 703. Official maps that depict the transportation-related needs identified in the LRTP and local comprehensive plans help ensure their implementation as part of the land development process, thereby providing a public-private partnership in funding. Many of the non-programmed project needs and concepts identified in the LRTP may be fully or partially

implemented through official map ordinances, thereby lessening the financial burden on the MPO.

- The MPO and FCPC should also continually monitor and update the Comprehensive Plan in accordance with MPC requirements, and the LRTP in accordance with federal planning requirements. Such updates will provide for monitoring of changes in development patterns and transportation system needs and adjustments in the planning and project implementation measures for both documents.

Transportation Improvements

Highway and Bridge

Current Transportation Project Programming

Clearly, given the condition of the existing roadway system, concern for traveler safety, and the desire for a transportation system that meets the ever-increasing needs for economic development, the associated costs for transportation improvements in Franklin County greatly exceed the funding currently expected to be available through the Transportation Improvement Program (TIP). The RPO adopted the 2013 TIP during the development of this plan, thereby establishing a fiscally-constrained program for the next four years (2013–2016). However, federal planning regulations require that the LRTP, with its 20-year planning horizon, also be fiscally constrained. Toward that end, PennDOT has provided guidance indicating that the level of funding in the future years of the plan should remain relatively level at approximately $12 million per year.

Current guidance from PennDOT, FHWA, and FTA recommends that at a minimum, 90 percent of MPO/RPO funding for projects is to be dedicated to system preservation, including 85 percent of bridge improvement funding for structurally deficient bridges. As a partner in the planning process, PennDOT District 8-0 not only works closely with the Franklin County RPO in the development and adoption of the TIP, but also maintains a 12-year program that quantifies funding needs for projects that are initiated, but not fully funded through the current four-year TIP. The program, including the recently adopted TIP as the first four years, is included in Appendix H: Franklin County 12-Year Program.

Future Transportation System Needs

A review of the 12-year program reveals that the second and third four-year time periods focus on fully funding projects from the TIP, but do not identify additional projects for the full allocation of available funding (approximately $12 million per year). This leaves transportation funding available to identify transportation needs while maintaining fiscal constraint. As such, the remainder of this section of the plan focuses in the identification of roadway and bridge proposals that may be evaluated using the *DecisionLens* criteria developed during the LRTP planning process.

The initial step in the development of evaluation criteria included a review of the goals and objectives established at the initiation of the LRTP process, including the federal planning factors, and the project selection criteria adopted by the RPO Board soon after its initiation in 2009. Draft evaluation criteria were put in the *DecisionLens* software and a series of meetings were held with the RPO Board to review, refine, and adopt as a part of the LRTP. A summary of the approved criteria is provided below. The weights associated with each criterion can be reviewed by contacting the FCPC staff who maintain the *DecisionLens* model.

Criteria for the Prioritization of Transportation Projects

- ✓ Consistency with County Goals and Objectives (project aligns with county goals/policies)
- ✓ Consistency with Local Goals and Objectives (project aligns with local goals/policies)
- ✓ Local Commitment (project is supported through local resources)
- ✓ System Preservation (project helps meet optimal replacement cycle for asset maintenance)
- ✓ Environment (the potential impact of project on natural and manmade environments)
  - Social Impact
  - Air Quality
  - Natural Resources
- ✓ Accessibility and Mobility (project facilitates improved movement of people and freight)
  - System Management and Operation
  - Integration and Connectivity
  - Providing New Capacity
- ✓ Safety and Security (project improves safety and/or security)
- ✓ Economic Vitality (the impact a project has on the ability to provide jobs or economic benefit)

The role of the MPO is to continually monitor the funding available through the TIP and use *DecisionLens* and the evaluation criteria adopted during the development of the LRTP to match project proposals to address transportation system needs within the available funding. The use of these criteria as improvement proposals compete for available funding helps ensure that the Franklin County TIP will continue to meet the goals and objectives of the LRTP, address the federally-mandated planning factors, and address the asset management approach to programming as set by PennDOT. A funding shortfall is evident through PennDOT's own estimate of $56.6 million in annual maintenance needs for Franklin County to maintain a steady state of system condition and to address capital backlog.

Sources of Roadway and Bridge Needs

There are several sources of roadway and bridge needs that have been identified during the preparation of the plan. Clearly, such transportation needs will change over time and additional needs will continually be identified as conditions change. The five sources of roadway and bridge needs identified during the LRTP planning process include the following and are summarized below:

- District 8-0's listing of priority bridges (in Figure 44: District 8-0 Priority Bridges)
- Projects identified by the PennDOT Interstate Maintenance Program
- Municipal Level 1 Forms submitted as a result of a countywide solicitation conducted by the RPO/MPO
- Recommendations from the Congestion Management Evaluation completed in 2012
- Recommendations from the Point of Access (POA) Study prepared in reaction to existing and future conditions surrounding the Interstate 81 interchanges in central and southern Franklin County

Figure 44: District 8-0 Priority Bridges

Improvement Type	Title	Description	Total
Bridge Preservation	Amberson Road over tributary to Conococheague Creek 1	Bridge preservation on SR 4005 (Amberson Road) over tributary to Conococheague Creek, Fannett Township	$50,000
Bridge Replacement	US 11 Conococheague Creek Bridge	Bridge replacement on US 11 over Tributary to Conococheague Creek, Antrim Township	$471,040
Bridge Replacement	Tributary Conococheague Creek Bridge	Bridge replacement on US 11 over Tributary to Conococheague Creek, Antrim Township	$285,440
Bridge Replacement	Muddy Run Bridge	Bridge replacement on US 11 over Muddy Run, Antrim Township	$600,000
Bridge Replacement	Falling Spring Run Bridge	Bridge replacement on US 11 over Falling Spring Run, Chambersburg Borough	$1,423,276
Bridge Replacement	Wet Weather Stream Bridge	Bridge replacement on US 11 over Wet Weather Stream, Southampton Township	$600,000
Bridge Replacement	West King Street bridge	Bridge replacement on US 11 over Norfolk Southern Railroad, Shippensburg Borough and Southampton Township	$2,500,000
Bridge Replacement	Buck Run Bridge	Bridge replacement on PA 16	$500,000

Improvement Type	Title	Description	Total
		over Buck Run, Peters Township	
Bridge Replacement	E Branch of Little Antiem Creek	Bridge replacement on PA 16 over E Branch of Little Antiem Creek, Washington Township	$1,000,000
Bridge Replacement	Red Run Bridge	Bridge replacement on PA 16 over Red Run, Washington Township	$600,000
Bridge Replacement	Red Run Bridge 2	Bridge replacement on PA 16 over Red Run, Washington Township	$750,000
Bridge Replacement	Red Run Bridge 3	Bridge replacement on PA 16 over Red Run, Washington Township	$600,000
Bridge Replacement	Campbell Run Bridge	Bridge replacement on US 30 over Campbell Run, St Thomas Township	$1,400,000
Bridge Replacement	Williamson Road over Tributary to Campbell Run	Bridge replacement SR 3002 (Williamson Road) over Tributary to Campbell Run	$750,000
Bridge Replacement	Tributary to Back Creek Bridge	Bridge replacement on US 30 over Tributary to Back Creek, St Thomas Township	$1,000,000
Bridge Replacement	Wet Weather Stream Bridge	Bridge replacement on PA 75 over Wet Weather Stream, Metal Township	$450,000
Bridge Replacement	Path Valley Bridge	Bridge replacement on PA 75 over Wet Weather Stream, Metal Township	$320,000
Bridge Replacement	Tuscarora Creek Bridge	Bridge replacement on PA 75 over Tuscarora Creek, Fannett Township	$750,000
Bridge Replacement	Little Antietam Creek	Bridge replacement on PA 233 over Little Antietam Creek, Quincy Township	$400,000
Bridge Replacement	Rocky Mt Creek Bridge	Bridge replacement on PA 233 over Rocky Mountain Creek, Greene Township	$1,100,000
Bridge Replacement	Rocky Mt Rd Bridge	Bridge replacement on PA 233 over Rocky Mountain Creek, Greene Township	$1,088,000
Bridge Replacement	Little Antietam Creek 2	Bridge replacement on PA 316 over Little Antietam Creek, Washington Township	$950,000
Bridge Replacement	Tributary to West Antietam	Bridge replacement on PA 316 over Tributary to West	$850,000

Improvement Type	Title	Description	Total
		Antietam, Quincy Township	
Bridge Replacement	West Branch of Antietam Creek	Bridge replacement on PA 997 over the West Branch of Antietam Creek, Quincy Township	$750,000
Bridge Replacement	Conodoguinet Creek Bridge	Bridge replacement on PA 997 over Conodoguinet Creek, Letterkenny and Lurgan Townships	$850,000
Bridge Replacement	Marsh Run Bridge	Bridge replacement on SR 2002 over Marsh Run, Washington and Antrim Townships	$750,000
Bridge Replacement	Mont Alto Road Bridge	Bridge replacement on SR 2031 (Mont Alto Road) over Tributary to Conococheague Creek, Guilford Township	$450,000
Bridge Replacement	Williamsport Pike Bridge	Bridge replacement SR 3001 (Williamsport Pike) over Tributary to Conocheaque Creek, Antrim Township	$400,000
Bridge Replacement	Stoney Battery Road Bridge	Bridge replacement on SR 3011 (Stoney Battery Road) over Buck Run, Peters Township	$1,152,000
Bridge Replacement	Marsh Run Road Bridge	Bridge replacement PA 16 Buchanan Trail over Marsh Run, Antrim Township	$1,000,000
Bridge Replacement	Lincoln Highway Bridge 1	Bridge Replacement SR 30 (Lincoln Highway) over Tributary to Back Creek, St Thomas Township	$1,000,000
Bridge Replacement	Antietam Creek	Bridge Replacement PA 233 over Antietam Creek, Guilford Township	$200,000
Bridge Replacement	Tributary to Dry Run	Bridge Replacement PA 641 over Tributary to Dry Run, Fannett Township	$200,000
Bridge Replacement	Rolling Road Bridge	Bridge Replacement SR 3028 (Rolling Road) over tributary to Back Creek, St Thomas Township	$200,000
Bridge Replacement	Jack Road Bridge 2	Bridge replacement on SR 3012 (Jack Road) over Conococheague Creek,	$1,484,736

Improvement Type	Title	Description	Total
		Guilford and Hamilton Townships	
Bridge Replacement	Jack Road Bridge	Bridge replacement on SR 3012 (Jack Road) over Tail Race, Guilford Township	$256,000
Bridge Replacement	Spring Run Road Bridge	Bridge replacement on SR 4006 (Spring Run Road) over West Branch of Conococheague Creek, Metal Township	$1,569,000
Bridge Replacement	Dry Run Bridge	Bridge replacement on SR 4007 over Dry Run, Fannett Township	$1,000,000
Bridge Replacement	Fort McCord Road Bridge 2	Bridge replacement on SR 4008 (Fort McCord Road) over Dennis Run, Hamilton Township	$1,500,000
Bridge Replacement	Fort McCord Road bridge 1	Bridge replacement on SR 4008 (Fort McCord Road) over Rocky Spring Creek, Hamilton Township	$1,800,000
Bridge Replacement	Clippenger Road Bridge	Bridge replacement on SR 4018 over Clippenger Road, Lurgan Township	$1,000,000
Bridge Replacement	Tributary to Conodoguinet Creek Bridge	Bridge replacement on SR 4018 over Tributary to Conodoguinet Creek, Lurgan and Southampton Townships	$750,000
Bridge Replacement	Paxton Run Rd Bridge	Bridge replacement on SR 4018 (Paxton Run Road) over Tributary of Conodoguinet Creek, Lurgan Township	$889,063
Bridge Replacement	Maclays Mill Road Bridge	Bridge replacement on SR 4018 (Maclays Mill Road) over Conodoguinet Creek, Southampton Township	$1,841,905

PennDOT Interstate Maintenance Program

PennDOT Central Office (Program Center) manages the interstate system on a statewide basis. In coordination with the MPO/RPOs, PennDOT has identified interstate maintenance needs across the Commonwealth for the 2013-2024 Twelve-Year Program. One project has been identified in the third four-year timeframe (2021-2024) for I-81 in Franklin County. The MPO should continue to work with the PennDOT Program Center to coordinate efforts involving I-81.

- Multimodal Project Management System (MPMS) #92006: I-81 Maryland to Mile 18 ($24,958,422)

Municipal Level 1 Forms

PennDOT's recently enacted Linking Planning and NEPA (LPN) project development process calls for the submission of transportation system needs through one of two primary mechanisms. Many system needs are submitted for MPO consideration through the Level 1 Form submission. These proposals are then evaluated by the MPO for eligibility for federal/TIP funding and movement into the proposal development phase as Level 2 Forms. Conceptual proposal alternatives are then developed and preliminary cost estimates incorporated. Level 2 Forms may also be submitted as asset management alternatives directly by District 8-0 or by the MPO. Not all proposals listed below may be eligible for federal/TIP funding, but have been included to illustrate the identified need and potential support from the MPO.

The following listing summarizes the projects from FCPC-solicited Level 1 Forms submitted by stakeholders and municipalities as this LRTP was being developed. Level 1 Forms submitted prior to the LRTP adoption are included here for reference.

<u>Antrim Township</u>

1. Hykes Rd (T351) & Williamsport Pike (SR 3001) sight distance limitations
2. I-81 Interchange with SR0011 (Exit 3) lack of I-81 southbound access from NB 11
3. SR 2016-SR 3015 intersection visibility limitations
4. Hykes Rd (T351) in need of structural upgrade due to intermodal facility re-routing of traffic
5. SR 16 (Buchanan Trail) improvements

<u>Chambersburg Borough</u>

1. Parkwood Dr extension between Norland Ave & Grand Point Rd (Greene Township) – letter of support
2. US 11 2nd Street and Main Street, US 30 Lincoln Way and Queen Street, and SR 316 Wayne Avenue improvements

<u>Greene Township</u>

1. Construction of Parkwood extension (Grand Point Road (T-524) to borough line)
2. Scotland Main Street (SR 1006) paving
3. Black Gap Road (PA 997) and US Route 30 intersection, add right-turn lane
4. Coffee Avenue (T-830) at PA 997 and PA 433 intersection, add right-turn lane
5. Black Gap Road (PA 997) corridor safety study for speed control and alignment
6. Elimination of Stop Except Right-Turn-Only condition at Walker Road (T-490) and Nolts Drive (T-541)
7. Realignment of Walker Road (T-490) and Mower Road (T-518) intersection
8. Realignment of horizontal curvature on Salem Road (T-529)

<u>Guilford Township</u>

1. New Guilford Springs Road interchange at I-81 (See POA Study summary)
2. SR 0030 – SR 1008 (Main St) safety and capacity concerns
3. Falling Spring Rd/Cider Press Rd/Edwards Ave intersection safety and capacity concerns
4. SR 0914 (Swamp Fox Rd) – I-81 Exit 10 ramp safety and capacity concerns

Hamilton Township

1. SR 995, Leafore Road, and Tallow Hill intersection improvements/roundabout
2. US 30 corridor improvements – Lincoln Highway West

Lurgan Township

1. Bridge #66, Burnt Mill Rd (T-642) over Conodoguinet Creek

Mercersburg Borough

1. Main Street improvements
2. Ft. Loudon Rd (SR 0075) improvements
3. Loudon Rd improvements
4. Oregon Street improvements
5. Park Ave improvements
6. Montgomery, Peters, Mercersburg Connectivity (MPMC) Project – SR 75, SR 16, SR 416

Metal Township

1. SR 75 (Back Rd – Village of Metal) very rough, poor drainage, etc.
2. SR 75 – PA Turnpike interchange sight distance limitations

Montgomery Township

1. Bridge #120, Anderson Road (T-328) over Licking Creek
2. Bridge replacement on Heisey Road (T-330) over West Branch of Conococheague Creek

Southampton Township

1. SR 1005 safety concerns
2. Eastern Connector Road (Possum Hollow Rd to US 11)

St. Thomas Township

1. SR 0030 – Williamson Rd intersection improvement to improve safety

Washington Township

1. Washington Township Boulevard completion suggested to provide needed capacity alternative for Route 16 at Waynesboro
2. Old Forge Road and Washington Township Boulevard intersection improvements/roundabout
3. SR 0016 – SR 2011 intersection safety and capacity concerns

Waynesboro Borough

1. North East Avenue improvements (Country Club Rd to West Main St/SR 16)
2. Roadside Avenue reconstruction (Country Club Rd to West Main St/SR 16)
3. South Welty Rd resurfacing
4. N. Potomac Street reconstruction (Brown St to borough line)
5. E. 2nd Street reconstruction (Waynesboro Middle School to East Main St)
6. Fairview Avenue reconstruction (West Main St to West Eighth St)

The MPO should evaluate all Level 1 Forms in accordance with their adopted procedures and advance appropriate forms to the Level 2 process as appropriate so that specific alternatives and conceptual cost estimates can be developed for TIP consideration. Such projects can then be considered according to the project evaluation criteria and programmed accordingly.

Congestion Management Study Recommendations

Project proposals have been identified including near-term, low-cost signal retiming projects and longer-term investments in communications infrastructure and proactive management practices. These projects are expected to have an impact on congestion management and air quality while supporting mobility and safety as the region continues to grow. Signal and ITS projects often provide benefits that are not feasible to achieve through traditional road construction projects.

Near-Term Signal Improvements

- Buchanan Trail – This project includes the extension of the existing signal at Antrim Church Road/John Wayne Drive and Buchanan Trail to include the northbound ramps of I-81, including detectors on the ramps to prevent backups on the mainline of I-81. In conjunction with this installation, John Wayne Drive will be made one-way away from Buchanan Trail for at least the first few hundred feet. The intersection of Grindstone Mill and John Wayne Drive would be signalized, if warranted, to facilitate truck traffic. ($450,000)

The following list of projects includes updated traffic counts and field measurements and observations to create a simulation model to update the corridor timing plans. The intent of these short-term projects is to improve flow and reduce congestion and emissions as much as possible without physical construction.

The corridors identified for retiming are as follows:

- Wayne Avenue (SR0316) from Garber Road/Kriner Road to 4th Street (SR0317)
- 2nd Street (SR 011) from E. McKinley Street (SR 0318) to Philadelphia Street (SR 0011) and Main Street (SR0011) from Philadelphia Street (SR 0011) to South Street (SR 0324) – 14 signals
- Lincoln Highway (SR0030) from West Side Plaza to Ragged Edge Road including the I-81 interchange

NOTE: Lincoln Highway was broken into three individual segments due to the proximity of the signals to one another. Progression can be lost along a corridor if the distance between signals exceeds a quarter mile.

Intermediate Improvements

- Wayne Avenue – Extend interconnect between Orchard Drive and McKinley Street using fiber optic cable ($215,000)
- Route 11 – Install dial-up equipment to extend interconnect to isolated intersections
- Route 11 – Adaptive traffic signal control along the entire corridor
- Route 30 West End – Extend fiber optic cable from West Side Plaza to Federal Street ($122,500)

Longer-Term Improvements

- Central Traffic Signal & ITS Software Upgrade – to expand the current Chambersburg system to manage a larger number of signals and provide enhanced traffic and incident management capabilities ($115,000)

- I-81 Detours ITS Project – The central management location could provide the opportunity to utilize variable message signs and alternative timing plans to manage traffic more efficiently during incidents on I-81. An alternative signal plan could be initiated remotely to direct traffic from I-81 to the nearest interchange reducing the inconvenience to local traffic ($300,000)

- Solenberger Road – To reduce congestion at Solenberger Road westbound on Route 30, we are proposing to extend the second through-lane from just east of the cemetery through the Solenberger intersection and tie into the existing right-turn lane at the West End Plaza. This project would require Preliminary Engineering to determine the environmental impacts and the extent of the widening necessary with regard to available right-of-way. The concept sketches indicate that additional right-of-way will not be needed. This through-lane extension will allow the signal to be retimed improving the level of service (LOS) from a LOS F to a LOS C. ($200,000 Preliminary Engineering/$1,000,000 Final Engineering & Construction)

Point of Access Study Recommendations

The POA Study identified a series of improvements as part of the selected Guilford Springs Road Interchange Alternative. These projects are listed below with anticipated costs.

1.	Guilford Springs Road Interchange Core Project	$9,900,000
2.	Wayne Avenue Interchange Improvements	$4,400,000
3.	Marion Interchange Improvements	$860,000
4.	Marion Connector Road	$14,000,000
5.	Intersection Improvements	$4,000,000

The phased approach presented below for the Guilford Springs Road Interchange Alternative will provide an opportunity for Guilford Township and the Franklin County Planning Commission to establish a project development plan, by which improvements can be incrementally staged to meet traffic demands and funding availability. The phased approach is as follows:

Short-term Improvements

- Improvements to intersections, including geometric changes and added turn lanes:
    - Geometric improvements to the Kriner Road/WCN Drive Intersection
    - Add turn lanes at the US 11, Guilford Springs Road, and Loop Road intersection
    - Add turn lanes and traffic signals at the Guilford Springs Road and WCN Drive intersection
    - Add turn lanes and traffic signals at the new intersection on Guilford Springs Road with I-81 southbound ramps
    - Add turn lanes at the US 11 and Orchard Drive intersection

    - Add turn lanes at Wayne Avenue, Kriner Road, and Garber Road
- Improvements (lengthening) of acceleration and deceleration lanes on I-81 at the Wayne Avenue and Marion interchanges
- Addition of a southbound off-ramp and a southbound on-ramp on I-81 at Guilford Springs Road

Intermediate Improvements

- Possible closure of at-grade railroad crossings on Lighthouse Road, Overcash Road, Alleman Road, and Third Street to improve safety. The at-grade crossings on Swamp Fox Road would remain open to provide access.
- Construction of the two-lane Marion Connector from Archer Drive to Swamp Fox Road and signalization of the intersection at Swamp Fox Road and the proposed Marion Connector.

Longer-term Improvements

- Improvements to intersections, including added turn lanes and signals:
    - Add turn lanes and signals at the US 11 and Swamp Fox Road intersection
    - Add turn lanes and signals at the southbound I-81 Marion interchange ramps on Swamp Fox Road
- Addition of a northbound off-ramp and a northbound on-ramp on I-81, and signals at Guilford Springs Road to complete the interchange. This addition would require the widening of the Guilford Springs Road Bridge over I-81 at the Guilford Springs Road Interchange.
- Add turn lanes and traffic signals at the intersection of Swamp Fox Road and the I-81 northbound ramps.

The recommendations of the POA study are supported as a combination of programmable and illustrative projects that will have to be implemented through a broad range of funding and planning actions, including the programming of key intersection and roadway improvements, privately-funded transportation improvements, and municipal planning activities to facilitate public and private improvements.

Early actions should be taken by Franklin County and the appropriate municipalities to incorporate the recommended improvements in the POA study into municipal and/or county official map ordinances, so that as much of the work as possible can occur through the land development activities that are critical to the economic development of the region. Such improvements may include the construction of specific improvements and/or the dedication of necessary right-of-way. Improvements that are not privately funded or constructed should then be subjected to the proposal evaluation criteria adopted during the development of this plan, and thereby considered for TIP funding.

Freight

The continued function of the transportation system in Franklin County is not only critical to the county's continued economic development, but to that of the broader region as a whole. As described in the LRTP, the county's combination of interstate and arterial highways and rail systems is the backbone of the local and regional economy. The system, as it currently exists, provides significant multimodal advantages over most other counties in the region. With Franklin County serving as a regional intermodal center, the key to maintaining a safe and effective freight movement system is to monitor and maintain capacity in the linkages between the highway and rail systems (i.e., Interstate 81 interchanges, at-grade roadway crossings, etc.).

There are a number of measures that the MPO should undertake relating to freight movement:

- FCPC should continue to work with local governments to plan and regulate for future freight-related development to be located near existing and future intermodal terminals. Support may include zoning analysis and other planning tools, including official maps, access management ordinances, and connectivity ordinances.

- Franklin County government should continue to coordinate with PennDOT and the I-81 Corridor Coalition to participate in advancing a regional approach to I-81 improvements that will help facilitate freight movement.

- The MPO should consider alternatives for incorporating key freight managers in the regular transportation efforts of the MPO. Roles may include additions to the committee structure and/or regular participation in MPO meetings and activities.

Transit and Ridesharing

The best approach for providing transit and ridesharing activities for Franklin County employers and residents through the 20-year planning horizon centers upon coordination with those providing such services throughout the region. The future for transit and ridesharing in the county can be addressed through the following five key components:

- Enhancing the education and use of Commuter Services of PA – Commuter Services of Pennsylvania is successful in Franklin County and also in the surrounding communities. The MPO should continue to provide funding and technical support to Commuter Services to educate and encourage employers and residents to use the available services and encourage ridesharing. Franklin County currently contributes approximately $87,000 annually and should continue to coordinate with Commuter Services to help ensure that financial needs are met as ridesharing trends change through the planning period. Furthermore, the MPO should continue to maintain communication with Commuter Services through regular participation in MPO meetings.

- The *Regional Transit Coordination Study*, completed in Summer 2011, identified 10 potential corridors for regional transit coordination, including one longer-term

recommended corridor that serves Franklin County with service to Harrisburg. This corridor, traveling primarily along I-81, could be served by commuter bus, with stops at several park-and-ride locations. A first step would be to initiate a Chambersburg shuttle to Carlisle and then eventually extend CAT Route #81 to Chambersburg. In the short term, Commuter Services is interested in finding carpool matches to reach the Shippensburg park-and-ride, where participants could then transfer to the bus to get to their destination in Harrisburg.

- Other than providing service from CAT from the north, additional transit options can be enhanced by providing transportation alternatives to the south by working with the Hagerstown MPO in Maryland. Extending Washington County transit service into Franklin County is instrumental since many people moving to Franklin County from the Hagerstown area continue to work in Maryland.

- In addition to providing commuters with north-south movement, it's important to offer alternatives for commuters needing to go east and west to and from Franklin County. The Franklin County MPO should coordinate with York County MPO and Rabbit Transit to evaluate opportunities due to the extensive transit service offered by Rabbit Transit.

- While ridership on the system provided by Franklin County Transportation has been fairly steady in the past five years, additional service is likely to be needed as the population continues to age. The MPO and FCPC should maintain communications with the transportation service provider and work with them to make sure that needs continue to be identified and addressed.

Non-Motorized

Franklin County has an extensive system of trails; pedestrian activity in numerous urbanized centers; and significant bicycle, pedestrian, and buggy traffic associated with the Plain Sect community. As such, there are a number of design elements that should be incorporated into system improvements in high bicycle/pedestrian/buggy areas and for non-motorized mobility for which the MPO should seek alternative funding opportunities. These improvements include:

- Investigating and working with municipalities to implement low-cost, high-benefit improvements to enhance non-motorized travel, where appropriate. These improvements may include
  - enhanced striping and pavement treatments to increase visibility of pedestrians at crosswalks;
  - advanced warning signage at highly-traveled pedestrian, bicycle, and buggy routes; and
  - an improved connected network for pedestrians and bicyclists by including street connectivity standards, and sidewalk/trail/multi-use path requirements as part of local land use (Subdivision and Land Development Ordinance [SALDO]) regulations.

- Incorporating the widening of roadway shoulders and/or reducing vertical crest curves in the design and construction of programmed transportation improvement projects along key buggy routes.
    - Investigate the need for safety improvements along Path Valley Road (SR 75) between Upper Strasburg Road and Big Spring Road, as it serves as a major north-south buggy route.
- Focusing on bicycle and pedestrian improvements surrounding schools identified as urban, suburban, or small town with a connected/limited-connected street network as identified in the existing conditions summary.
- The MPO should coordinate with Montgomery Township, Peters Township, and Mercersburg to identify funding opportunities to implement the strategies identified in the Montgomery, Peters, Mercersburg Connection (MPMC) Feasibility Study (August 2012 – http://www.mpmcproject.org/)
- The MPO should coordinate with Greene Township to identify funding opportunities for the phased implementation plan identified in a 2013 feasibility study to guide overall trail development. Total estimated trail costs range from $6 million to $12 million, dependent on the selected paving option of crushed stone versus asphalt.

Aviation

Franklin County, while home to only one airport, is centrally located to a number of aviation facilities providing services to county residents and employers. Aviation funding and project programming is not under the purview of the MPO. As such, there are a limited number of aviation action items for the MPO. However, the MPO should invite the Susquehanna Area Regional Airport Authority (SARAA) to participate in MPO meetings that relate to surface transportation needs affecting Franklin County Regional Airport (FCRA) to ensure that the airport can continue to operate effectively and that the regional services under the purview of SARAA continue to meet the needs of the county's residents.

The FCRA Airport Action Plan provides a long-range plan for development of the airport that is designed to bring the facilities into compliance with existing FAA, state, and local requirements. Recommendations from the plan are listed below.

- The MPO should consider inviting a representative from SARAA to routinely participate in MPO Board meetings, either as a regular member or at special purpose meetings held to discuss aviation system needs.

- The MPO should also coordinate with SARAA to periodically evaluate possible roadway system improvement needs and facilitate the completion of the strategies identified in the Franklin County Regional Airport Action Plan.

- Airfield Lighting – replace low intensity runway and taxiway edge lights and threshold lights. This was completed in 2011.

- NAVAIDs – replace the Visual Approach Slope Indicator (VASI) with Precision Approach Path Indicator (PAPI). The Runway 24 PAPI will be replaced in 2012 and the Runway 6 PAPI is planned to be replaced in 2013.
- Installation of an Automated Weather Observation Station (AWOS III) – It is anticipated that this will be completed in 2013.
- Construction of a Partial Parallel Taxiway to Runway 24 – This project should be under design in 2012 and bid in 2013. Additionally a turnaround at Runway 24 is programmed for funding in 2014.
- Extension of runway 600 feet to the west including completion of the parallel taxiway is a long-term project and has not yet been programmed.
- Rehabilitate Mackey Building that houses the skydiving business – This building is currently leased to the Chambersburg Skydiving Center and no upgrades are currently planned.
- Rehabilitate Main Hangar Building – No funding is available for the foreseeable future to accomplish this rehabilitation.
- Demolish and replace FBO Building – This building was repaired in 2005 by the Chambersburg Skydiving Center who leases the building.
- Rehabilitate the Airport Office and T-Hangar Building – This is also leased by the Chambersburg Skydiving Center and there are no current plans to rehabilitate the facility.
- Develop New Fuel Service Facilities – A new refueling concrete pad was constructed in 2009 as part of the apron expansion project. To date no arrangements have been made to install a fueling system.
- Develop additional ten-unit T-Hangar – This is a long-range objective for SARAA and will be developed as interested third-parties emerge.
- Develop a Maintenance Building to store and maintain snow removal and maintenance equipment and materials – In 2004, SARAA erected a steel frame and fabric maintenance building to store snow removal and mowing equipment.

The Airport Layout Plan that is part of the Airport Action Plan provides for additional hangar development and eventual construction of a dedicated general aviation terminal building beyond the years of the proposed Action Plan.

Transportation Funding

Introduction

The LRTP is the overarching document that influences the development of the annual Unified Planning Work Program (UPWP), the Transportation Improvement Program (TIP), transportation studies, and programs throughout the region. Federal guidelines stipulate that all MPO LRTPs provide a list of anticipated investments for the next 20 years. These project lists must be fiscally constrained based on current and anticipated future funding levels. Fiscal constraint means that the project list does not exceed reasonably anticipated funding levels. Existing funding levels and projections provided by PennDOT were used for the Franklin County LRTP. The highway and bridge funding projections are provided in Figure 45: Projected Highway and Bridge Funding.

Figure 45: Projected Highway and Bridge Funding

Annual Expected Base Funding FFY 2013 - FFY 2035 using YOE (3.0% increase factor)			
FFY 2013	$11,896	**FFY 2024**	$14,944
FFY 2014	$11,797	**FFY 2026**	$15,392
FFY 2015	$11,797	**FFY 2027**	$15,854
FFY 2016	$11,797	**FFY 2028**	$16,330
FFY 2017	$12,151	**FFY 2029**	$16,820
FFY 2018	$12,515	**FFY 2030**	$17,324
FFY 2019	$12,891	**FFY 2031**	$17,844
FFY 2020	$13,278	**FFY 2032**	$18,379
FFY 2021	$13,676	**FFY 2033**	$18,931
FFY 2022	$14,086	**FFY 2034**	$19,499
FFY 2023	$14,509	**FFY 2035**	$20,084

Unified Planning Work Program (UPWP)

The UPWP is developed each year to identify work tasks that the Franklin County MPO will accomplish to meet the planning goals and objectives outlined in the LRTP.

Transportation Improvement Program (Years 1-4)

The Franklin County LRTP contains a fiscally-constrained schedule of potential projects for the region over the next 20 years, as well as additional related strategies to help improve the overall transportation system. The Transportation Improvement Program (TIP) lists all surface transportation improvements eligible for federal transportation funds (highway, bridge, rail, bus, and other) by project phase that are to be implemented over a four-year timeframe. All regionally significant projects are also included on the TIP regardless of the allocation of federal

funding. This project list reflects the project priorities and cost estimates as approved by the MPO Policy Board.

At the time of development of this LRTP, SAFETEA-LU legislation expired and its successor, Moving Ahead for Progress in the 21st Century (MAP-21), was passed in July 2012. MAP-21 continues to provide the majority of federal resources to PennDOT through core programs using funding formulas. The core highway programs have been consolidated from seven in SAFETEA-LU to five, as follows:

- National Highway Performance Program
- Transportation Mobility Program
- National Freight Program
- Congestion Mitigation and Air Quality Improvement Program
- Highway Safety Improvement Program

Additionally, MAP-21 consolidates 87 programs under SAFETEA-LU to less than 30 programs. The activities for which dedicated funding has been removed have been consolidated into the very broad core programs, leaving PennDOT with the flexibility to fund these activities as they see fit. Due to the very new nature of the federal legislation, final decisions on the use of the funding programs have yet to be made.

At this time, the distribution of federal funds follows policy decisions and funding formulas that were put into place by PennDOT as part of the *2013 Transportation Program Financial Guidance*. Current guidance from PennDOT, FHWA, and FTA states that at least 90 percent of an MPO's or RPO's funding for projects is to be dedicated to system preservation, including 85 percent of bridge improvement funds for structurally deficient bridges.

The total estimated federal and state funds available through highway/bridge base funding allocations for the Franklin County RPO FFY 2013-2016 TIP is provided in Figure 46: FFY 2013-2016 TIP Funding.

Figure 46: FFY 2013-2016 TIP Funding

National Highway System (NHS)	$8,791,000
Surface Transportation Program (STP)	$8,476,000
State Highway	$2,875,000
Federal Bridge	$9,611,000
State Bridge	$2,380,000
Safety	$2,730,000
CMAQ	$5,563,000
Rail	$610,000
Transportation Enhancements (TE)	$1,176,000
Act 44 Revenue	$5,075,000
Total Projected Revenue	**$47,287,000**

Programmed projects are selected based on priority needs, schedule, and available funding. The Franklin County 2013 TIP update was adopted prior to the finalization of this LRTP. The TIP update process used a project ranking system and evaluation process that focused on adopted selection criteria. The purpose of the project ranking criteria was to ensure that projects being considered for the 2013 TIP met the goals and objectives of the RPO.

Nationally and statewide, current and future transportation needs outpace available funding. Funding limitations have prevented many projects from moving forward. Over the last decade, a "maintenance first" focus has been embraced across the Commonwealth; however, improvements in fuel economy continue to reduce fuel tax revenue while the costs to improve an aging infrastructure continue to rise. The growing need for adding strategic capacity to the overall transportation system to reduce congestion and improve safety should also be considered as part of the transportation funding equation.

Pennsylvania recently examined the transportation funding crisis through an April 2010 Pennsylvania State Transportation Advisory Committee (TAC) report, *Transportation Funding Study*. This study identified a $3 billion annual shortfall in funds required to address transportation needs throughout the Commonwealth. This gap is projected to increase and more than double to $7.2 billion by 2020. As a follow-up to the TAC study, Governor Tom Corbett established the Governor's Transportation Funding Advisory Commission (TFAC) on April 21,

2011. The TFAC released a report in August 2011 recommending a long-term innovative funding package as a solution to Pennsylvania's transportation funding needs. The legislative outcomes from the TFAC recommendations are still pending. The MPO should update the LRTP and its associated programming recommendations, if legislative action alters the available funding.

Other Funding Sources

Liquid Fuels Funding

The Municipal Liquid Fuels Program funds a range of projects to support municipalities' construction, reconstruction, maintenance, and repair of municipal-owned public roads or streets. Funds are only available to municipalities who submit annual reports. Annual allocation of funds is based on eligible mileage and population. Figure 47: Liquid Fuels Allocation, 2012 identifies the liquid fuel disbursements to municipalities in 2012.

Figure 47: Liquid Fuels Allocation, 2012

Municipality	Population	Miles	Liquid Fuels
Antrim	14,893	107.04	$ 432,033.89
Fannett	2,548	29.74	$ 99,636.83
Greene	16,700	104.23	$ 448,894.12
Guilford	14,531	121.56	$ 460,073.12
Hamilton	10,788	68.84	$ 293,376.18
Letterkenny	2,318	40.02	$ 119,825.62
Lurgan	2,151	34.99	$ 106,360.51
Metal	1,866	25.04	$ 80,306.60
Montgomery	6,116	76.41	$ 250,470.00
Peters	4,430	38.23	$ 142,895.27
Quincy	5,541	39.21	$ 159,356.35
Saint Thomas	5,935	55.16	$ 200,314.62
Southampton	7,987	55.81	$ 228,106.75
Warren	369	13.02	$ 34,042.14
Washington	14,009	79.16	$ 357,934.48
Chambersburg	20,268	68.28	$ 413,752.60
Greencastle	3,996	15.45	$ 86,049.67
Mercersburg	1,561	5.60	$ 32,634.43
Mont Alto	1,705	5.59	$ 34,459.56
Orrstown	262	0.04	$ 3,451.70
Waynesboro	10,568	29.89	$ 202,878.31
Total	148,542	1,013.31	$ 4,186,852.75

Marcellus Legacy Fund

Act 13 of 2012 establishes a Marcellus Legacy Fund that allocates a portion of the Marcellus Shale Impact Fee to the Highway Bridge Improvement Restricted Account in the Motor License Fund. These funds are distributed to counties (proportionately based on population) and are to be used to fund the replacement or repair of locally-owned (county, municipal), at-risk, deteriorated bridges. Franklin County's allocation for 2012 is $212,716.

Pennsylvania Infrastructure Bank (PIB)

The PIB is a low interest loan program administered by PennDOT for eligible transportation improvement projects. Loan terms are up to 10 years, and construction projects receive the highest priority. There are four separate accounts to cover highway/bridge, rail freight, transit, and aviation projects.

Public-Private Partnerships (P3)

Although not a revenue source, Act 88 of 2012 allows PennDOT and other transportation authorities and commissions in the state to enter into agreements with the private sector to participate in the delivery, maintenance, and financing of transportation-related projects. A P3 can be used to build new transportation facilities or to improve capacity or performance of the existing system. The P3 can help lower costs and expedite projects.

Transportation Impact Fees

Act 209 of 1990 and Article V-A of the MPC enable municipalities to impose a fee on developers for the construction of necessary transportation infrastructure improvements. Local governments can adopt a local or multimunicipal transportation impact fee ordinance to charge developers a one-time fee toward off-site transportation system improvements required by new development.

Acronyms

ACM – Agency Coordination Meeting

ADT – Average Daily Traffic

ADA – Americans with Disabilities Act

AQ – Air Quality

BMS – Bridge Management System

BPT – PennDOT Bureau of Public Transportation

CAAA – Clean Air Act Amendments

CAT – Capital Area Transit

CMAQ – Congestion Mitigation and Air Quality

COG – Council of Governments

CSX – CSX Corporation

CTA – Chambersburg Transit Authority

DVMT – Daily Vehicle Miles Traveled

EIS – Environmental Impact Statement

EJ – Environmental Justice

EPA – U.S. Environmental Protection Agency

FAA – Federal Aviation Administration

FCADC – Franklin County Area Development Corporation

FCPC – Franklin County Planning Commission

FCRA – Franklin County Regional Airport

FFY – Federal Fiscal Year, from October 1 through September 30

FHWA – Federal Highway Administration

FO – Functionally Obsolete (bridge)

FTA – Federal Transit Administration

HHS – U.S. Department of Health and Human Services

IRI – International Roughness Index

ISTEA – Intermodal Surface Transportation Efficiency Act

ITS – Intelligent Transportation System

LOS – Level of Service

LPN – Linking Planning and NEPA

LRTP – Long-Range Transportation Plan

MAA – Maryland Aviation Administration

MAP-21 – Moving Ahead for Progress in the 21st Century Act: current federal transportation authorization

MATP – Medical Assistance Transportation Program

MPC – Pennsylvania Municipalities Planning Code

MPMC – Montgomery, Peters, Mercersburg Connectivity Project

MPMS – Multi-modal Project Management System: PennDOT's transportation project database

MPO – Metropolitan Planning Organization

MTA – Maryland Transit Administration

MUTCD – Manual on Uniform Traffic Control Devices

NPIAS – National Plan of Integrated Airport Systems

NEPA – National Environmental Policy Act

NHS – National Highway System: a federal classification of highways consisting of the Interstate system and other key roadways

NS – Norfolk Southern Corporation

OPI – Overall Pavement Index

PennDOT – Pennsylvania Department of Transportation

POA – Point of Access

PPP – Public Participation Plan

PSASP – Pennsylvania Statewide Airport System Plan

PWD – Persons with Disabilities

RMS – Roadway Management System

RPO – Rural Planning Organization

SAFETEA-LU – Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users: former federal transportation authorization

SD – Structurally Deficient (bridge)

SR – State Route

SARAA – Susquehanna Area Regional Airport Authority

STIP – Statewide Transportation Improvement Program

TAC – Transportation Advisory Committee

TFAC – Transportation Funding Advisory Committee

TIP – Transportation Improvement Program: a priority list of transportation projects and associated funding developed by a metropolitan or rural planning organization

TSM – Transportation Systems Management

TYP – Twelve-Year Program

UA – Urbanized Area

UPWP – Unified Planning Work Program

VMT – Vehicle Miles Traveled

YOE – Year of Expenditure