northern tier regional planning & development commission

Northern Tier

Bicycle and Pedestrian Plan

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Introduction

THE NORTHERN TIER REGION

The Northern Tier region encompasses five counties in northeastern Pennsylvania: Bradford, Sullivan, Susquehanna, Tioga, and Wyoming. Three of the counties border New York State. The region is primarily rural with low population densities.

The Northern Tier Regional Planning and Development Commission (NTRPDC) serves as the Rural Planning Organization for the Northern Tier. NTRPDC also leads the region's Rural Transportation Advisory Committee (RTAC).

ABOUT THIS REPORT

Purpose

The purpose of this Bicycle and Pedestrian (Bike-Ped) Plan is to assist NTRPDC in its efforts to develop an effective multimodal transportation network, primarily through its transportation program but also as it supports local initiatives for off-road trails.

Multimodal transportation planning, and particularly bike-ped planning, have been emphasized nationally and in Pennsylvania over the past three decades. Federal funding has increased steadily since the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which introduced Transportation Enhancements funding. In response to increased bike-ped travel during the Great Recession (2007-2009), bike-ped projects were eligible for funding under the American Recovery and Reinvestment Act, which brought total funding to a peak in 2009. To date, the federal transportation program does not require planning for bicycle and pedestrian infrastructure but does provide funding opportunities to safely integrate bicycle and pedestrian travel with other modes of transportation.

At the state level, bike-ped planning also remains voluntary, however bicycle and pedestrian modes have received significantly greater attention in recent years under PennDOT Connects, the Pennsylvania Department of Transportation's (PennDOT's) initiative to plan and develop a multimodal transportation system that serves the needs and goals of local communities. This effort reviews local transportation priorities, including bike-ped needs and goals, with local officials before highway and bridge projects are designed to coordinate and optimize related projects.

Planning for off-road bike-ped connections in Pennsylvania was increasing in parallel with federal transportation funds. The statewide greenways plan for both recreational and conservation connections was completed in 2001, followed by more than a decade of county-level greenway plans. Since then, the planning and development of off-road trails have

remained a priority for the Pennsylvania Department of Conservation and Natural Resources (DCNR) and its funding programs.

Because PennDOT's planning partners are asked to help in the identification and implementation of local bike-ped priorities, NTRPDC decided to update its 2001 Bicycle and Pedestrian Plan. Specifically, the plan assesses bicycle and pedestrian facilities, including:

- ✓ Identifying existing facilities, both on-road and off-road;
- ✓ Compiling known gaps and planned facilities;
- ✓ Characterizing bike-ped needs among the population;
- ✓ Identifying strategies to address the gaps and advance planned facilities, prioritized by areas of need; and
- ✓ Providing a practical implementation plan.

Approach

The Bicycle and Pedestrian Plan development was led by NTRPDC, concurrent with development of the Northern Tier's Coordinated Public Transit–Human Services Transportation Plan and its Comprehensive Economic Development Strategy (CEDS).

The Bicycle and Pedestrian Plan development was based on extensive outreach to the general public as well as representatives of public, private, and nonprofit transportation and social service providers. Plan development was guided by a steering committee.

The project involved research and assessment of demographic and transportation data; review of previous plans; outreach to stakeholders throughout the project, including conference calls, telephone interviews, and a stakeholder summit; and outreach to the general public, such as e-mail correspondence, survey distribution, and county-level public meetings.

The multifaceted outreach efforts shaped the plan's goals, strategies, and actions, which are introduced in the following chapter.

PREVIOUS BIKE-PED PLANS AND OTHER IMPORTANT STUDIES

A review of previous plans and studies established a foundation to generate transportation needs and gaps to present to stakeholders for feedback. The bulleted list shows the plans and studies reviewed.

- Northern Tier Bicycle and Pedestrian Plan, 2001
- Bradford County Open Space, Greenways and Outdoor Recreation Plan, 2006
- Mansfield-Richmond-Covington Revitalization Strategy & Mobility Analysis, 2007
- Tunkhannock Area Park & Ride Lot Feasibility Analysis, 2007
- Central Bradford Region Comprehensive Plan, 2008

- Northern Tier Land Use, Transportation and Economic Development Strategy: A Regional Strategy and Action Plan, 2008
- Northern Tier Open Space, Greenway and Recreation Plan, 2010
- Troy Mobility Plan, 2011
- Northern Tier Long Range Transportation Plan 2015 to 2040, April 2015
- Northern Tier Transportation Improvement Program 2019–2022

Key policy and project recommendations highlights from previous plans and studies include:

- Accommodate nonmotorized modes. (Mansfield-Richmond-Covington)
- Identify a network of priority bicycle/pedestrian facilities in the borough. (Troy)
- Improve transportation services and alternatives (pedestrian/bicycle routes) between communities, school and community facilities, and special events. (Central Bradford Region) (Mansfield-Richmond-Covington)
- Implement access management solutions. (Mansfield-Richmond-Covington) (Wellsboro)
- Create a more pedestrian-friendly environment through traffic-calming techniques. (Troy)
- Inventory and upgrade borough sidewalks to provide pedestrian safety, continuity, ADA (Americans with Disabilities Act) compliance, and an acceptable condition. (Troy)
- Improve signalized intersections. (Mansfield-Richmond-Covington)
- Upgrade the Borough's traffic signal equipment and hardware. (Wellsboro)
- Address signing and roadway markings. (Wellsboro)
- Continue Lambs Creek Trail through the Mill Creek area to the Welcome Center to connect the trail to Pennsylvania Bicycle Route G and provide a circular route around Tioga County including the boroughs of Mansfield, Tioga, and Wellsboro. (Mansfield-Richmond-Covington)
- Improve connectivity between existing bicycle and pedestrian facilities. (Long Range Transportation Plan)
- Increase accessibility through new or upgraded facilities in conjunction with planned development. (Long Range Transportation Plan)
- Maintain, enhance, and/or improve connectivity among and access to schools, parks, community centers ("downtowns" and other hubs), and health care centers. (Long Range Transportation Plan)

VISION

The region shares this vision for a bicycle and pedestrian network:

> The bicycle and pedestrian network in the Northern Tier enables people to walk or bicycle safely to reach daily, in-town destinations, to access transit and transportation services where available, and to experience the region's scenic landscape off-road, on foot or bike.

The envisioned network provides bicycle and pedestrian facilities that connect destinations for purposed travel (such as commuting or errands) or for recreational use. For in-town settings, bicycle and pedestrian accommodations include sidewalks, crosswalks, and pedestrian signals as well as shared-use pavement markings and signage. These in-town facilities connect employment centers, school and workforce training sites, shopping and service areas, public and human service agency facilities, and recreation sites. Beyond downtown areas, the network accommodates bicyclists on select roadways or shoulders to support travel to nearby destinations or adjacent towns. Off-road, bicycle and pedestrian trails use former rail lines, utility easements, or newly defined trail easements to connect common destinations.

The network comprises the most practicable linkages in this large rural region to serve all residents with safe travel options, including:

- People who rely on free and low-cost transportation modes.
- People who cannot drive a motorized vehicle due to disability or legal restriction.
- People who choose to walk or bike for personal health benefits and/or environmental reasons.
- People who walk or bike for leisure.

Improving travel safety for bicyclists and pedestrians is a sufficient reason to assess and improve conditions and extend connections where needed, yet the region has even more to gain through a strong bicycle and pedestrian network. Bicycle and pedestrian facilities are a key amenity for retaining and attracting young people and young families as residents—a demographic that has been declining in the region. These same facilities can draw visitors to experience the unique natural and cultural qualities of the region's small towns and rural landscape and bolster tourism spending.

The ideas expressed through this vision have already been embraced by several towns and trail organizations in the region. This plan compiles their planning efforts and organizes regional support for their advancement.

Goals, Strategies, and Actions

GOALS

Overall, bicycle and pedestrian facilities in the Northern Tier's five counties are limited to sidewalk systems in the larger towns and a few off-road trails. Outreach to stakeholders and assessment of data and previous plans identified bicycle and pedestrian needs and planned facilities. To meet the needs and advance planned facilities, the following four priorities, or goals, were identified:

A. **Improve and expand safe places for bicycling.**
B. **Extend accessible pedestrian networks throughout towns, including to destinations at the edge of town.**
C. **Extend, interconnect, and establish new trails.**
D. **Educate and alert all travelers to traffic laws and safe practices for shared-road travel.**

Strategies and action steps to achieve these goals follow. Additional detail, including lead entity and timing, is provided in the Implementation chapter.

STRATEGIES AND ACTIONS BY GOAL

Goal A: Improve and expand safe places for bicycling.

Strategy 1: Raise awareness of on-road bicycling.

Actions:

a) Ensure signs for designated bicycle routes are in good condition.
b) Promote (via Internet) facilities that accommodate on-road bicycling;
c) Share the vision and plan for improving facilities and conditions in existing locations.
d) Use temporary signage (e.g., variable message signs) to alert travelers to new road segments that accommodate bicyclists.

Strategy 2: Assess and improve roadways that bicyclists already use.

a) Develop and implement detailed plans to improve the Bicycle PA routes.
b) Assess scenic corridors as complementary touring routes. Improve these routes as feasible, working with the PennDOT Engineering District via PennDOT Connects or the local municipality (external funding may be required).

c) Assess roads in towns and within ~3 miles for bicycle use and barriers to use and safety, i.e., community bicycle audit; improve as feasible or re-direct bicyclists to a safer, alternative location.

d) Use temporary signage (e.g., variable message signs) to alert travelers to new road segments that have been improved to accommodate bicyclists.

Goal B: Extend accessible pedestrian networks throughout towns, including to destinations at the edge of town.

Strategy 1: Evaluate sidewalk and crosswalk conditions and pedestrian use in towns and along roadways to the edge of town.

a) Conduct community bicycle and pedestrian audits in core communities.

b) Document residents' pedestrian activity (e.g., through outreach in conjunction with community planning efforts) and define needs such as problem locations and missing connections.

Strategy 2: Extend sidewalks and infill gaps in existing sidewalk systems; ensure winter and long-term maintenance.

a) Include sidewalk requirements and standards in land development ordinances applicable to existing towns and adjacent development corridors.

b) Allocate Community Development Block Grant (CDBG) funding to install and/or repair sidewalks that help low- and moderate-income residents reach daily destinations on foot.

c) Share pedestrian needs with PennDOT Engineering Districts via PennDOT Connects for coordination (external funding may be required).

Goal C: Extend, interconnect, and establish new trails.

Strategy 1: Promote use of existing multi-use and pedestrian trails.

a) Centralize (or cross-reference) online information about trails in the region.

b) Publicize online trail information in conjunction with community and regional news outlets.

c) Measure or estimate trail usage, (e.g., biennially) to inform promotional methods and targets.

Strategy 2: Support development of additional trails.

a) Facilitate networking among localized trail development groups to share knowledge and experience.

b) Promote technical assistance programs that help communities and organizations develop trail projects.

Goal D: Alert all travelers to traffic laws and safe practices for shared-road travel.

Strategy 1: Inform travelers through signage and education.

a) Install signage and pavement markings to indicate shared-road use for motorists and bicyclists.

b) Work with local media to promote public understanding of shared-road travel practices, signage and pavement markings, and traffic laws pertaining to bicycle and pedestrian safety.

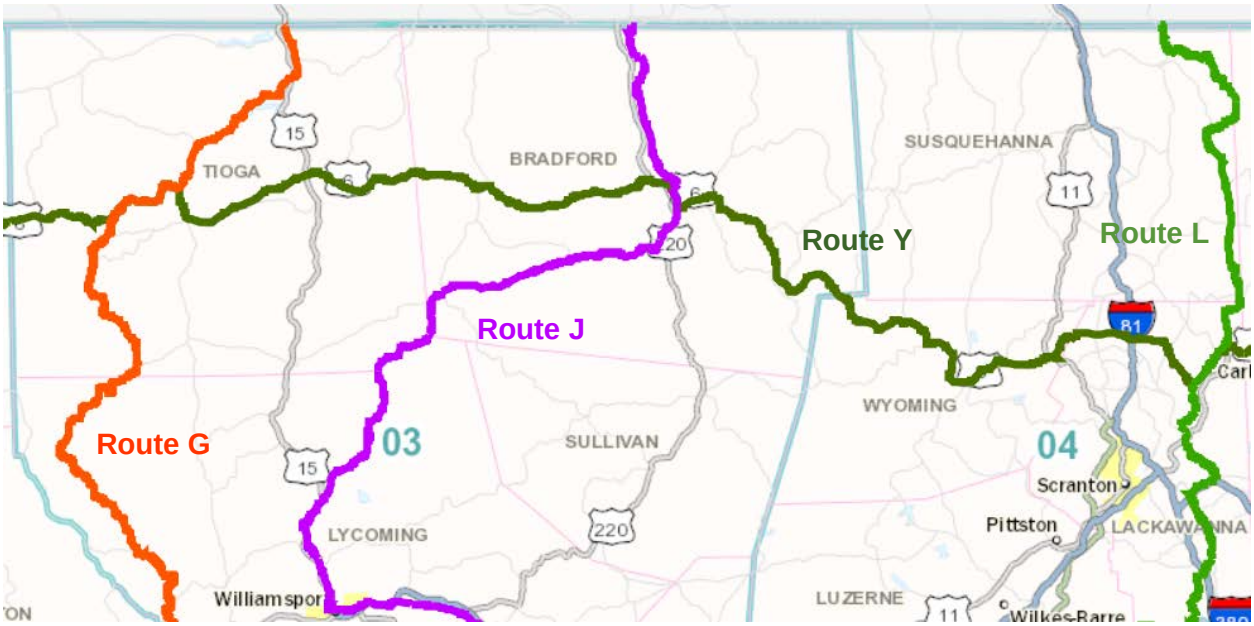
Inventory of Bicycle and Pedestrian Facilities

STATE-DESIGNATED BICYCLE ROUTES

To encourage long-distance bicycling, PennDOT established a system of statewide roadways that can be used for bike journeys. These are designated as nine “BicyclePA” routes and are identified by letters. At present, these roadways are suitable only for bicyclists experienced in on-road, in-traffic conditions. They are not intended for young and inexperienced bicyclists.

Four BicyclePA routes cross the Northern Tier region through Tioga, Bradford, Susquehanna, and Wyoming counties, as shown on Figure 1; there are no designated bike routes in Sullivan County. Beyond Pennsylvania, the routes connect to designated bicycle routes in adjoining states.

Figure 1: Bicycle PA Routes in the Northern Tier



Source: PennDOT

BicyclePA Route G runs generally north/south between Corning, New York, and Cumberland, Maryland. From the south, it follows PA Route 414, continuing north on the Pine Creek Rail Trail through the southwestern portion of Tioga County before joining Bicycle Route Y on U.S. Route 6. It continues north on PA Route 287 through Tioga to Lawrenceville on the New York State border. Approximately 50 miles (21 percent) of the 235 miles of Route G are in the Northern Tier region.

BicyclePA Route J is also a generally north/south route between Sayre and Harrisburg, continuing south toward Baltimore. From the south, it enters Tioga County at its southeastern

border with Lycoming County via PA Route 14, and continues north into Bradford County through Canton, Monroe, and Towanda to the New York State border near Sayre. Approximately 25 percent (55) of the 220 miles of Route J in Pennsylvania are in the Northern Tier region.

BicyclePA Route L runs generally north/south from Binghamton, New York, to Wilmington, Delaware. The stretch in the Northern Tier runs along the eastern edge of Susquehanna County for approximately 32 miles. From the south, Route L begins on PA Route 171 in Forest City and continues through Union Dale and Thompson. Route L then follows SR 4030, crossing into Wayne County briefly. It continues in Susquehanna County on SR 1009 through Lanesboro near the New York State border. Approximately 13 percent of the 225 miles of Route L in Pennsylvania are in the Northern Tier region.

BicyclePA Route Y runs east/west along U.S. Route 6, ultimately connecting New York City and Chicago. Of its 409 miles in Pennsylvania, 125 (30 percent) are in the Northern Tier. From the east, Route Y enters the region near Factoryville in Wyoming County and travels through Tunkhannock, Meshoppen, and Laceyville. Continuing west through Bradford County, Route Y links Wyalusing, Towanda, Burlington, Troy and Sylvania. Entering Tioga County, Route Y continues on U.S Route 6 through Mansfield and Wellsboro, where PA 287 and Bicycle PA Route J join U.S. Route 6 and BicyclePA Route Y.

PennDOT has completed a PA Route 6 Bicycle Master Plan Design Guide to address bicycle safety, accessibility, and connectivity along the western portion of PA Route 6 from the Ohio/Pennsylvania border to the McKean/Potter county line. The master plan can be found at: http://www.penndot.gov/TravelInPA/RideaBike/Documents/PA%20Route%206_Section%201%20BicycleDesignGuide_FINAL.PDF

A detailed, interactive map of Bicycle PA routes is provided on PennDOT's website:

http://www.penndot.gov/TravelInPA/RideaBike/Pages/Pennsylvania-Bicycle-Routes.aspx

OTHER STATE HIGHWAYS KNOWN FOR BICYCLE USE

Roadways that safely accommodate bicyclists are a local asset. They support bicycle use, which in turn supports bicycle sales and service businesses. They also support special events such as the Tour de Shunk, which benefits local charities, and bicycle tourism, which has been growing in the region especially since the designation of U.S. Route 6 as a U.S Bicycle Route in 2018. The PA Route 6 Alliance is interested in promoting bicycle touring routes and encouraging businesses to be bicycle-friendly.

A Northern Tier Greenways Plan was completed in 2010 and included an analysis of all the region's roadways identified as potential bicycle facilities.[1] Roadways that had been designated as Northern Tier Scenic Corridors or Corridors of Regional Significance, or recommended as designated bike routes, were identified and characterized by their traffic volume, speed limit, and typical existing shoulder widths. Based on these parameters, a recommended shoulder width that would improve the safety of bicyclists traveling on these facilities was determined. The results are summarized in Table 1.

Table 1 includes programmed roadway and bridge improvement projects by route, as identified in the 2019-2022 Northern Tier Transportation Improvement Program. Project that are planned but not yet fully designed represent an opportunity to incrementally improve these roadways for bicyclists by integrating improvements such as shoulder widening and edgeline rumble strips.

Table 1: Potential On-Road Bicycle Routes and Shoulder Improvements

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
Sullivan County				
PA 42	Major collector	1-3 ft	4 ft	• #99447 Resurfacing from Eagles Mere to Laporte Borough; 4.99 miles; 2020-2022
PA 87	Minor arterial	2-4 ft west of Hillsgrove; 4-6 ft from Hillsgrove to SR 4017; 2-6 ft east of SR 4017	4 ft	• #99108 from Splash Dam Rd to Scar Run; 2.08 miles; 2021 • 99110 from Loyalsock Creek to Splash Dam Road; 1.86 miles; 2021 • #78938 Bridge rehabilitation; 2020-2022 • #7006 Bridge rehabilitation; 2020-2022

[1] The Northern Tier Greenways Plan specifically assessed and planned for greenways in Sullivan, Susquehanna, Tioga and Wyoming counties. The effort integrated existing information from the Bradford County Greenways, Open Space and Outdoor Recreation Plan, completed in 2006.

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
				• #7007 Bridge rehabilitation; 2020-2022 • #110166 Bridge rehabilitation; 2022
PA 154	Major collector	0-1 ft	4 ft	• #99382 Resurfacing from Shanerburg Road to SR 3009 (Double Run Road); 3.81 miles; 2022 • #101276 Resurfacing from State Route 154 from US 220 to Shanerburg Road; 3.11 miles; 2019-2020 • #6963 Bridge replacement; 2019-2020
US 220	Minor arterial	8-10 ft south of Laporte; 4-6 ft north of Laporte	6 ft	• #99423 Resurfacing from Old Route 220 to 0.25 miles South of PA 42; 2.51 miles; 2019-2022 • #7030 Resurfacing from Lycoming County Line to Sonestown; 4.2 miles; 2019, 2022 • #93017 Reconstruction from Dushore to Bradford County; 2.52 miles; 2019, 2020-2022
PA 487	Major collector	0-2 ft	4 ft	• #90005 Bridge replacement; 2019, 2021-2022
SR 3009	Major collector	0 ft	14 ft lane	• No programmed projects
Susquehanna County				• No programmed projects
US 11	Major collector	0 ft south of Kingsley; 4 ft north of Kingsley	4 ft south of New Milford; 6 ft north of New Milford	• #94737 Shoulder Widening and Edgeline Rumble Strips; 3.1 miles; 2019-2020 • #94740 Shoulder Widening and Edgeline Rumble Strips; 2.59 miles; 2019-2022 • #94741 Shoulder Widening and Edgeline Rumble Strips; 3.11 miles; 2019 • #9699 Bridge replacement; 2020 • #96728 Bridge replacement; 2022 • #67550 Bridge replacement; 2021

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
PA 29	Minor arterial/ Major collector	0-2 ft	6 ft	• #9698 Bridge replacement; 2021 • #9698 Bridge rehabilitation/replacement; 2020
PA 92	Major collector/ Minor collector	0 ft	4 ft	• #85729 Bridge replacement; 2021 • #9704 Bridge replacement; 2022
PA 167	Minor collector/ Major collector	0 ft	4 ft	• No programmed projects
PA 171 / portions of Bicycle PA Route L	Minor arterial	0-2 ft	4 ft	• #101932 Resurfacing select segments; 16.52 miles; 2022
PA 492	Major collector	0 ft	4 ft	• #9723 Bridge replacement; 2020
PA 706	Minor arterial	0-1 ft	4 ft west of Montrose; 6 ft east of Montrose	• #9745 Intersection improvement, bridge replacements; 0.77 miles; 2019-2020 • #9720 Bridge replacement; 2020 • #109880 Bridge replacement; 2020 • #67525 Bridge replacement; 2021
PA 858	Minor collector	0 ft	4 ft	• #96731 Bridge replacement; 2021
SR 1009 / portions of Bicycle PA Route L	Major collector	0 ft	14 ft lane	• #85730 Bridge replacement; 2021
Tioga County				• No programmed projects
US 6 / Bicycle PA Route Y	Principal arterial	8-10 ft west of Wellsboro; 4-6 ft east of Wellsboro	8 ft	• #97673 Bridge replacement; 2019, 2019-2022 • #97674 Bridge replacement; 2019, 2021-2022

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
				• #97669 Bridge rehabilitation; 2019-2020 • #99387 Resurfacing from Dantz Run to PA 287; 5.07 miles; 2019, 2021-2022 • #7248 Bridge replacement; 2019-2021 • #102014 Bridge rehabilitation; 2019-2020 • #101292 Intersection realignment; 2019-2021 • #99107 Bridge replacement; 2019-2022 • #97669 Bridge rehabilitation; 2019-2020 • #99424 Resurfacing from Sassafras Street to Swan Street; 0.31 miles; 2019-2020, 2022 • #99426 Resurfacing from Swan Street to Strange Road; 5.14 miles; 2020-2022
PA 14	Minor arterial	2-4 ft	6 ft	• No programmed projects
US 15	Principal arterial	8-10 ft	8 ft	• #110158 2 bridge improvements; 2019-2021 • #101335 Highway restoration; 14.06 miles; 2021-2022
PA 49	Minor arterial	8-10 ft between Lawrenceville and Elkland; 2-4 ft west of Osceola	6 ft	• #99168 Resurfacing from Taft Avenue to 0.5 miles West of Barney Hill Road; 2.46 miles; 2021-2022
PA 287, portions of Bicycle PA Route G	Minor arterial	6-8 ft south of Tioga; 4-6 ft north of Wellsboro; 3-6 ft south of Wellsboro	6 ft	• #99170 Resurfacing from US 15 to Mitchell Creek Road; 0.43 miles; 2021-2022
PA 328	Minor arterial	1-2 ft.	4 ft	• No programmed projects
PA 349	Major collector	0 ft north of Sabinsville; 6-8 ft south of Sabinsville	4 ft	• #99171 Reconstruction from Ladd Road to PA 49; 1.17 miles; 2019, 2021-2022

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
PA 414, west of Morris	Major collector	No shoulder	4 ft	• No programmed projects
PA 414, Morris to Liberty	Minor arterial	4-6 ft	4 ft	• #99173 Reconstruction from US 15 to State Route 2005 (Water Street); 0.74 miles; 2020-2022 • #106235 Bridge replacement; 2021
PA 414, east of Liberty	Major collector	1-2 ft	4 ft	• No programmed projects
PA 660	Major collector	No shoulder	4 ft	• No programmed projects
Wyoming County				• No programmed projects
US 6 / Bicycle PA Route Y	Principal arterial	1-3 ft	8 ft	• #10222 Bridge replacement; 2022 • #10138 Bridge rehabilitation; 2019
US 11	Major collector	2-4 ft west of Hillsgrove; 4-6 ft from Hillsgrove to SR 4017; 2-6 ft east of SR 4017	6 ft	• #101154 Bridge replacement; 2022
PA 29	Minor arterial	4-6 ft south of Tunkhannock; 1-4 ft north of Tunkhannock	6 ft	• #94688 Intersection improvement; 2020-2021 • #10224 Bridge replacement; 2019, 2022
PA 87	Minor arterial	1-2 ft	4 ft west of Mehoopany; 6 ft east of Mehoopany	• #85773 Bridge rehabilitation; 2019
PA 92	Minor arterial	0 ft south of Osterhout; 0-6 ft from Osterhout to Dixon; 1-3 ft north of Dixon	6 ft	• #10228 Bridge replacement; 2019 • #10229 Bridge rehabilitation; 2019, 2021 • #10174 Bridge replacement; 2021-2022 • #10181 Bridge replacement; 2022
SR 3003	Major collector	0 ft	14 ft lane	• #10162 Bridge replacement; 2022

Source: Northern Tier Greenways Plan, 2010

SIDEWALK SYSTEMS AND CENTERS OF HIGH PEDESTRIAN ACTIVITY

For those who cannot or choose not to drive, the presence and condition of sidewalks, marked crosswalks, and other pedestrian facilities within these communities is essential. Sidewalk maintenance, including winter snow and ice removal and periodic replacement, and extension to new destinations as communities grow, are other aspects that should be addressed by local pedestrian policies.

More than just travel routes for pedestrians, sidewalks are public spaces where communities host civic activities and events that connect locals and visitors to the unique aspects of each community. For example, the Historic Tunkhannock Walking Tour introduces tour-goers to the town's historic development and its architecture through 40 tour sites, connected by sidewalks.

Although the Northern Tier region is rural, there are several towns and villages with sidewalk systems or the potential for daily pedestrian activity based on population and land use patterns, as shown on Table 2.

Table 2: Downtown Areas with Current or Potential Pedestrian Activity, by County

Bradford	Sullivan	Susquehanna	Tioga	Wyoming
Alba	Dushore	Friendsville	Blossburg	Factoryville
Athens–Sayre–South Waverly	Eagles Mere	Forest City	Covington	Forkston
Burlington	Forksville	Great Bend	Elkland	Laceyville
Canton	Laporte	Hallstead	Knoxville	Mehoopany
Le Raysville		Little Meadows	Lawrenceville	Meshoppen
Monroeton		Montrose	Liberty	Nicholson
New Albany		New Milford	Mansfield	Tunkhannock
Rome		Hop Bottom	Roseville	
Sylvania		Oakland	Tioga	
Towanda		Susquehanna	Wellsboro	
Troy		Thompson	Westfield	
Wyalusing		Union Dale		

Source: NTRPDC

OFF-ROAD TRAILS

The Northern Tier region has seven major off-road trails and rail-trails plus a water "trail" and community walking and/or biking paths. The major named trails are well-established with only a few gaps in planned routes. From west to east, these trails include:

The **West Rim Trail** in Tioga County follows the Western Rim of Pennsylvania's Grand Canyon approximately 30 miles, generally north/south.

The **Pine Creek Rail Trail** in Tioga County runs generally north/south approximately 62 miles between Jersey Shore and Ansonia through the Pine Creek Gorge area (the PA Grand Canyon). The Pine Creek Rail-Trail is also part of the **Triple Divide Trail System** (or Triple Divide Greenway), the named derived from a triple continental divide separating the headwaters of three national watersheds: the Allegheny River, the Genesee River, and the Susquehanna River. The trail system spans 230 miles from Lake Ontario north of Rochester, NY, to Williamsport, PA. Of the 110 miles in PA, about 41 miles are on-road detours through Tioga and Potter counties where no off-road facility exists along Pine Creek.

The **Mid State Trail** is a long-distance hiking trail stretching about 310 miles from the Maryland border to the New York State border. The trail traverses Tioga County in a north/south direction, crossing the Pine Creek Rail Trail at Ramsey in Lycoming County—about 16 miles south of Blackwell. The Mid State Trail is the Pennsylvania segment of the Great Eastern Trail, a 2,000-mile hiking trail linking Alabama and New York.

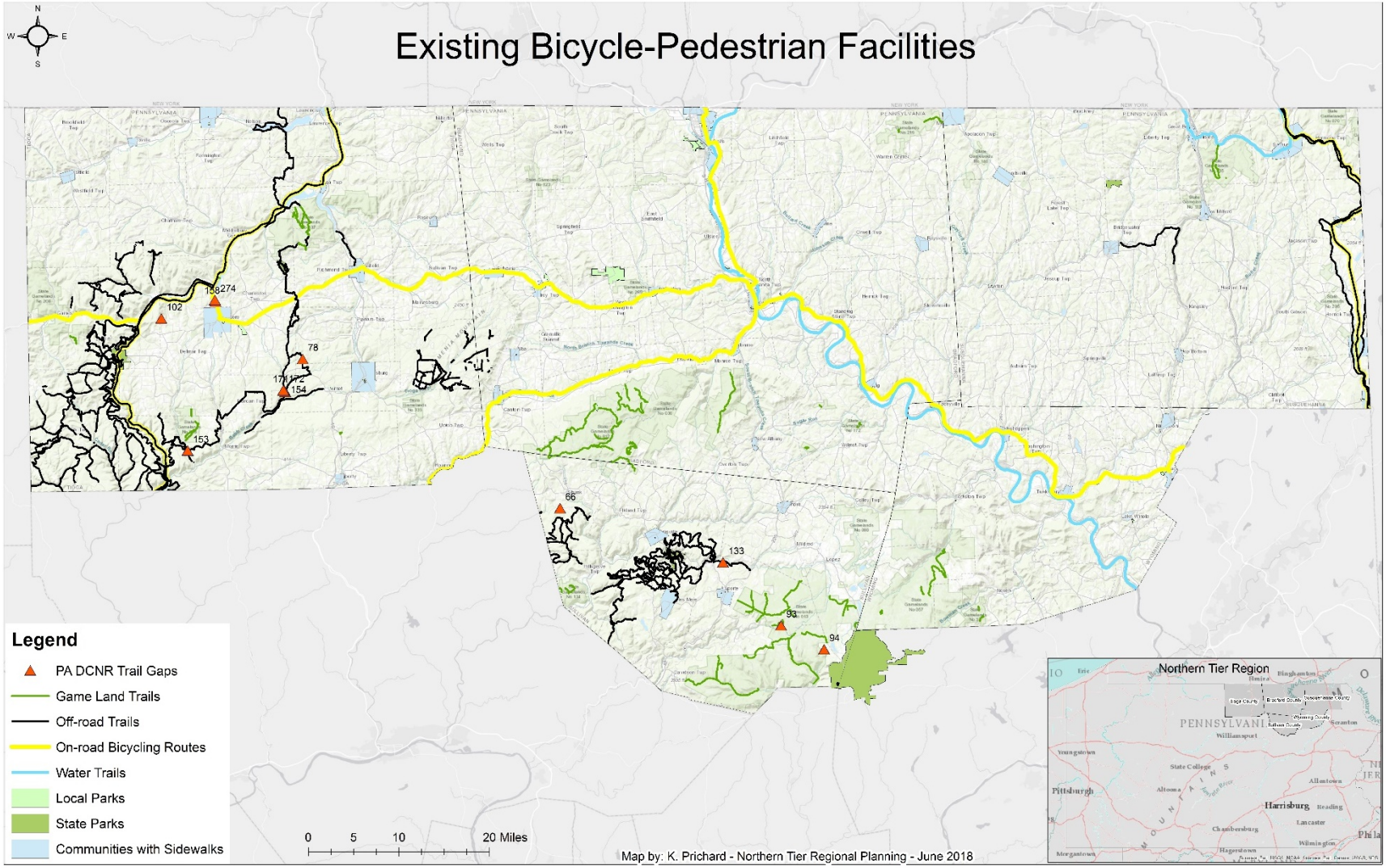
The **Loyalsock Trail,** a 60-mile trail within the Loyalsock State Forest in Lycoming and Sullivan counties, is mainly used for hiking and cross-country skiing.

The **Endless Mountain Trail** was one of the first trails in the nation. Its 9.2-mile route begins just east of Montrose in Susquehanna County and extends to the Lackawanna & Western Railroad corridor. The Rail-Trail Council is currently attempting to negotiate easements along the corridor to extend the trail for public use.

The Delaware and Hudson Rail Trail or **D&H Rail-Trail** is approximately 38 miles long and runs from the New York State border to Simpson in Lackawanna County, where it connects to the Lackawanna River Heritage Trail. The D&H Rail-Trail generally follows the eastern border of Susquehanna County through Forest City, Union Dale, Burnwood, Ararat, Thompson, Starrucca, Stevens Point, and Lanesboro. Ten miles of the trail have been improved with a stone dust surface suitable for hybrid and mountain bikes. The improved section runs along the Upper Lackawanna River from Vandling to Herrick Center. It is also used by equestrians, runners, and hikers. Other sections of the D&H are graded original railbed surface usable by mountain bikers and hikers. About 87 percent of the total trail miles are in the Northern Tier region.

The Ontario & Western Rail Trail or **O&W Rail Trail** also links Simpson in Lackawanna County to the New York State border. Just north of Forest City in Susquehanna County the O&W runs parallel to the D&H Rail-Trail for 8 miles on the opposite side of the Lackawanna River from the D&H. The trails then diverge with the O&W running northeasterly to Hancock, New York. The O&W passes through the municipalities of Forest City, Union Dale, and Herrick Center before continuing northeast through Wayne County. The O&W is original railbed surface—graded, but rough in areas, more suitable for mountain bikes. Using the D&H and O&W, various loop trips are possible. About 25 percent of the trail's 32 miles are in the Northern Tier region.

Figure 2: Existing Off-Road Trails and On-Road Bicycling Routes



Generally, these trails are not interconnected and are many miles apart. Due to these vast distances, public lands represent some of the best opportunities for developing regional connections. Regarding safety and improvement, these trails do cross state roadways or follow them for short distances. Therefore, trail organizations should be contacted as project stakeholders when roadway maintenance and improvement projects are being developed.

Water Trails

Although water "trails" are not bicycle or pedestrian facilities, they are part of the region's non-motorized transportation network and are important resources for tourism and recreation.

The **Pine Creek Water Trail** begins at the Big Meadows Access Area near Ansonia, Tioga County. Most paddlers end their journey 17 miles downstream at Blackwell, but the full 54-mile route ends at the Torbert Canoe Access about 5 miles north of Jersey Shore.

The **Susquehanna River Water Trail – North Branch** is a 185-mile route from the New York State border to Sunbury, where it joins the West Branch and forms the river's main stem. The water trail dips into Susquehanna County and then turns back into New York before heading south through Bradford and Wyoming counties. About half the length of the Susquehanna River Water Trail – North Branch in the Northern Tier region.

Community Trails

The one-mile **Towanda Riverwalk** begins at the Bradford County Veterans Memorial Park and runs southward along Merrill Parkway, then transitions to residential sidewalks. The trail is paved and relatively flat, making it easy for a wide range of users to enjoy.

The two-mile crushed stone pathway of the **Iroquois Trail** follows the wooded route of the Lehigh Valley Railroad's Montrose Branch through Tunkhannock. The trail is wooded and has a few well-marked crossings of a country road that sees little traffic.

The six-mile **Seneca Trail** in Eaton Township, Wyoming County, was designed for walking and biking along Bowmans Creek and Route 29 from the Monroe Township line to the Tunkhannock River Bridge.

The **Trolley Trail** is a project of the nonprofit Countryside Conservancy. At present, the trail comprises two disconnected sections that total 4.7 miles. The La Plume to Factoryville section passes through the Keystone College campus, interconnecting with the campus' forest stewardship trails into the Borough of Factoryville.

The **Conservancy Narrow Gauge Rail Trail** in Eagles Mere repurposes a 2.1-mile segment of the rail corridor that once connected to Sonestown and the mainline Williamsport & North Branch Railroad. It runs through a scenic woodland around the east side of Eagles Mere Lake.

PLANNED TRAILS

There are seven planned off-road trails in the Northern Tier region.

Tioga County is actively planning for the development of the **Marsh Creek Greenway** in Wellsboro. This ADA-accessible greenway will connect the Pine Creek Rail Trail, one of Pennsylvania's premier destination rail-trails, to the community of Wellsboro, closing a state-identified trail gap. This 3.2-mile connection will provide a bicycle and pedestrian facility from the historic train station in Wellsboro almost due north to the existing Pine Creek Rail Trail trailhead just north of Stokesdale. It will provide local residents with a safe place to walk and bike for health and leisure and will link rail trail users to stores, restaurants, lodging, and other services in Wellsboro. The greenway lies roughly parallel to Marsh Creek, US Route 6/PA 287, and the Wellsboro & Corning Railroad, crossing all but US Route 6 along its route. The estimated project cost is $10-11 million. Construction is expected to begin by Summer 2020 or 2021. Tioga County Partnership for Community Health and PA DCNR are partners for the greenway's development.

A group of Canton area residents is interested in developing a **Northern Central Rail Trail** along the former Williamsport-Elmira line. According to http://www.abandonedrails.com, this branch of the Pennsylvania Railroad was operated by Penn Central and likely abandoned around 1972 after Hurricane Agnes. The group is currently raising funds and seeking the support of elected officials to pursue a trail feasibility study.

The central **Bradford County Trail** would connect the Towanda Riverwalk with a loop through Towanda Borough, and spur trails into Wysox and Monroeton. A feasibility study focused on the physical potential of trail development was recently completed.

The **Diahoga Trail** is an emerging multi-municipal trail along the Susquehanna River in Sayre and Athens, Bradford County. Overall, the trail is intended to connect the two downtowns, three river access points, and various recreation sites, including the Carantouan Greenway, and to create more opportunities to view the river. Futurescapes, a local nonprofit, has spearheaded trail development and brought together Sayre Borough, Athens Borough, and the Valley Joint Sewer Authority to plan and construct the trail.

Phase 1 connected Satterlee Street in Athens to Riverfront Park in Sayre in 2018. In 2019, Phase 2 will connect Riverfront Park to the intersection of East Hayden Street and South Higgins Avenue Valley at the Borough's levee system and will include connections to Riverfront Park Road on the south and north ends of the baseball fields. Sayre Borough was recently awarded a state multimodal transportation grant from the Commonwealth Financing Authority. Additional phases are envisioned to extend the trail south to the Front Street bridge and north to North Thompson Street at Cayuta Creek.

A second **Endless Mountains Trail** (EMT) is a trail proposal that would connect the east end of the Loyalsock Trail (and Worlds End State Park) to Ricketts Glen State Park, primarily through

State Game Lands 13. A feasibility study is underway, according to Jeff Mitchell, the blogger at https://endlessmountains.wordpress.com/endless-mountains-trail/.

Other trail concepts in the Northern Tier region include the following; no detailed or official status was available at the time of this report:

- Wyalusing River Trail in Bradford County
- Susquehanna Depot Trail in Susquehanna County
- Tunkhannock to Falls in Wyoming County
- Wyalusing Creek Water Trail in Bradford and Susquehanna Counties
- Bowman's Creek Water Trail in Wyoming County

IDENTIFIED TRAIL GAPS

After a more than decade of greenway planning and investment by the state, DCNR compiled known trail gaps. This compilation resulted in a list and map of 248 trail gaps ranging from discrete barriers, such as bridges without shoulders, to multi-mile gaps. This list includes 11 trail gaps in the NT region, listed in Table 3.

Table 3: Trail Gaps in the Northern Tier Region

Gap ID #	Trail System	Name/Location Description	Managed by	County
133	Loyalsock Trail	North of Laporte section	PA DCNR Bureau of Forestry	Lycoming, Sullivan
78	Mid-State Trail	Charlestown Township	Mid-State Trail Association	Tioga
153	Mid-State Trail	Stony Fork Bridge	Mid-State Trail Association	Tioga
154	Mid-State Trail	Sand Run Falls Bridge 1	Mid-State Trail Association	Tioga
171	Mid-State Trail	Sand Run Falls Bridge 2	Mid-State Trail Association	Tioga
172	Mid-State Trail	Sand Run Falls Bridge 4	Mid-State Trail Association	Tioga
158	Pine Creek Rail Trail (Triple Trail Divide)	Marsh Creek Greenway	Tioga County Trail Authority	Tioga
66	Loyalsock State Forest Trail	Connect Loyalsock forestry trails in the Cabbage Hollow area to SGL 12 trails near Sunfish Pond	Highland Lake Snowmobile and Outdoor Recreation Club	Lycoming, Sullivan
94		West of Lake Jean Along SR 487	Pennsylvania Cross Country Skiers Association	
93	Ricketts Glen State Park Trail		Pennsylvania Cross Country Skiers Association	
274	Pine Creek Rail Trail (Triple Trail Divide)	Marsh Creek Greenway, Pine Creek Rail Trail to Wellsboro	Tioga County	Tioga

Source: PA DNCR

Bicycle and Pedestrian Safety Performance

NATIONAL PERSPECTIVE

In 2017, more than 6,000 pedestrians and 800 bicyclists were killed in crashes with motor vehicles in the U.S.[2] Together, these two modes accounted for about 17 percent of the approximately 40,000 total U.S. vehicle fatalities that year.

Between 2007 and 2017, there was a 27 percent increase in the number of pedestrian fatalities nationwide, including an increase of 11 percent between 2016 and 2017. Over the same 10-year period, there was a 6 percent increase in bicycle fatalities. Other types of traffic fatalities decreased by 14 percent over same period. About 75 percent of pedestrian fatalities occurred after dark and more than 70 percent occurred in travel lanes away from intersections.

PENNSYLVANIA PERSPECTIVE

Pedestrian-related crashes over the past 10 years (2007–2016) averaged about 3.5 percent of the total reported vehicle crashes in Pennsylvania; however, they account for approximately 14.5 percent of all vehicle crash fatalities.

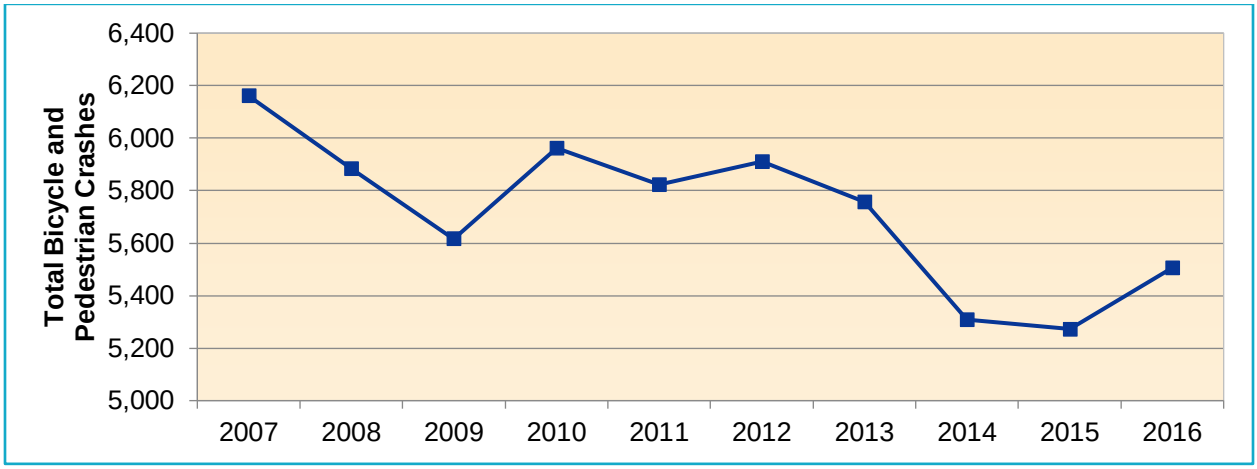
Bicycle-related crashes over the past 10 years have averaged about 1.1 percent of the total reported crashes in Pennsylvania and 1.2 percent of all vehicle crash fatalities.

Although these percentages are low, they still reflect 16 bicyclist fatalities and 172 pedestrian fatalities in 2016 alone. Bicycle and pedestrian injuries in Pennsylvania in 2016 were 1,298 and 4,218, respectively.

The number of both pedestrian and bicycle crashes in Pennsylvania has fluctuated but generally been in a downward (improving) trend over the past decade. However, crashes have increased slightly since 2015, as shown in Figure 3.

[2] 2016 Fatal Motor Vehicle Crashes: Overview. National Highway Traffic Safety Administration. October 2017.

Figure 3: Pennsylvania Bicycle and Pedestrian Crashes



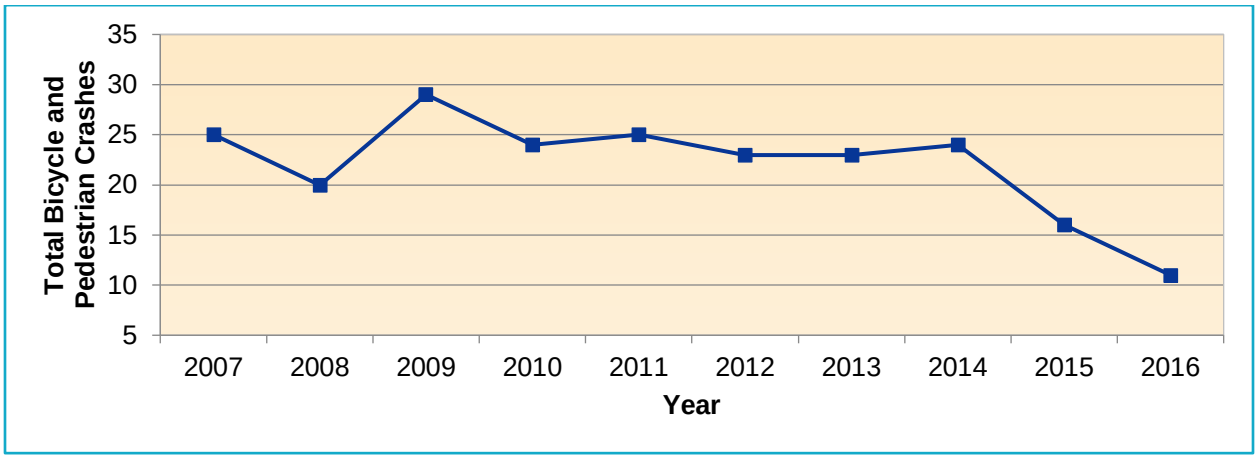
NORTHERN TIER REGION

Figure 4 graphs the total number of pedestrian and bicycle crashes over the past decade, which shows a declining (improving) trend similar to the statewide numbers. Table 4 provides more detailed data on trends in bicycle, pedestrian, and vehicle crashes—both injuries and fatalities—within each of the Northern Tier counties.

In the Northern Tier region in 2016, bicycle- and pedestrian-related crashes represented about 0.6 percent of the total reported traffic crashes.

The region averaged 1.6 pedestrian/bicycle fatalities per year over the past decade, for a total of 12 pedestrian fatalities and 4 bicyclist fatalities. Bradford County led the region in the number of pedestrian and bicycle-related crashes for the five-year period ending in 2016.

Figure 4: Northern Tier Bicycle and Pedestrian Crashes



Source: PennDOT

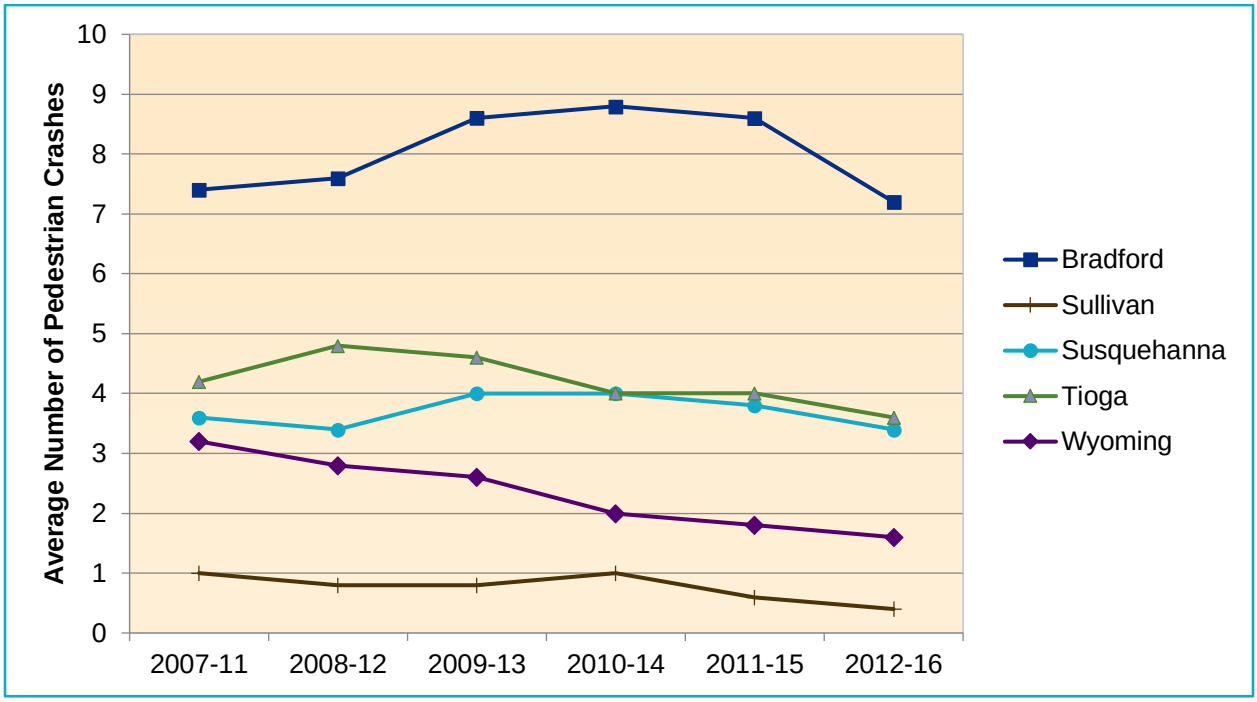
Table 4: Pedestrian, Bicycle, and Vehicle Crashes, Injuries, and Fatalities by County, 2007–2016

County	Pedestrian			Bicycle			Vehicle		
	Crashes	Injuries	Fatalities	Crashes	Injuries	Fatalities	Crashes	Injuries	Fatalities
Bradford	73	68	6	23	23	1	6,699	3,152	109
Sullivan	7	6	1	1	1	0	824	370	16
Susquehanna	35	33	4	5	5	0	5,046	2,311	99
Tioga	39	39	0	8	6	2	4,737	2,174	95
Wyoming	24	23	1	5	4	1	3,365	1,627	50
Total	**178**	**169**	**12**	**42**	**39**	**4**	**20,671**	**9,634**	**369**

Source: PennDOT

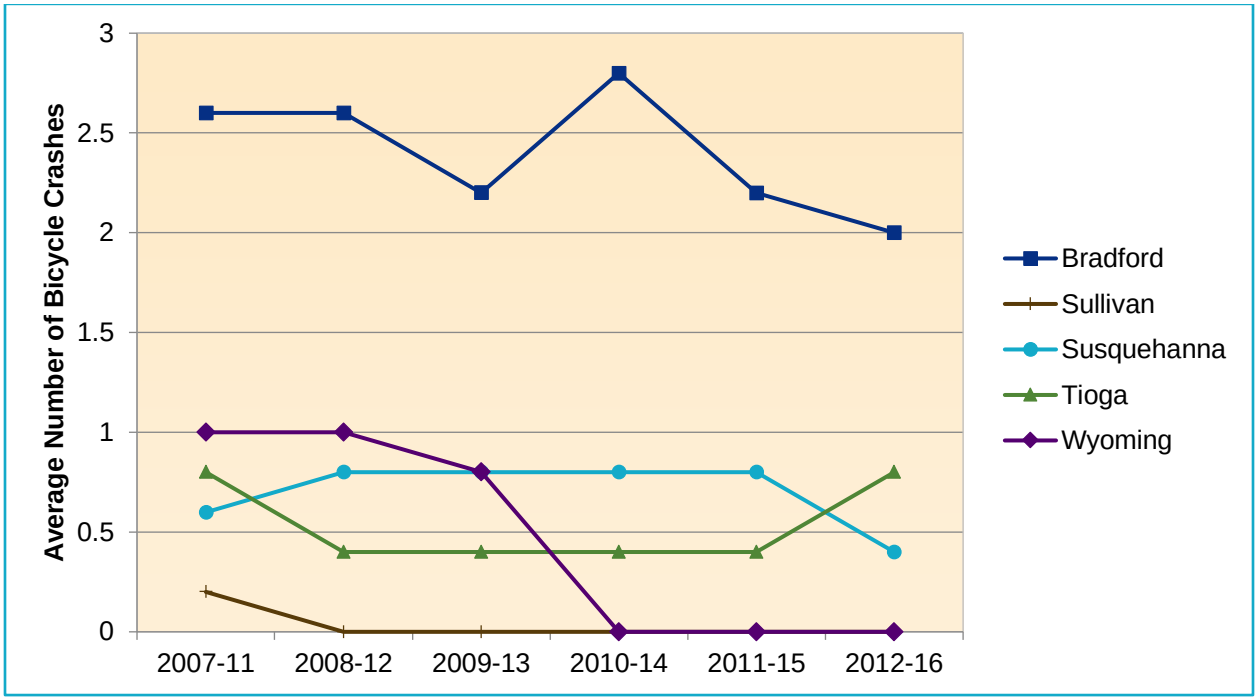
Figure 5 and Figure 6 compare the number of crashes by county between 2007 and 2016.

Figure 5: Average Annual Pedestrian Crashes by County, 2007–2016 (Five-Year Average)



Source: PennDOT

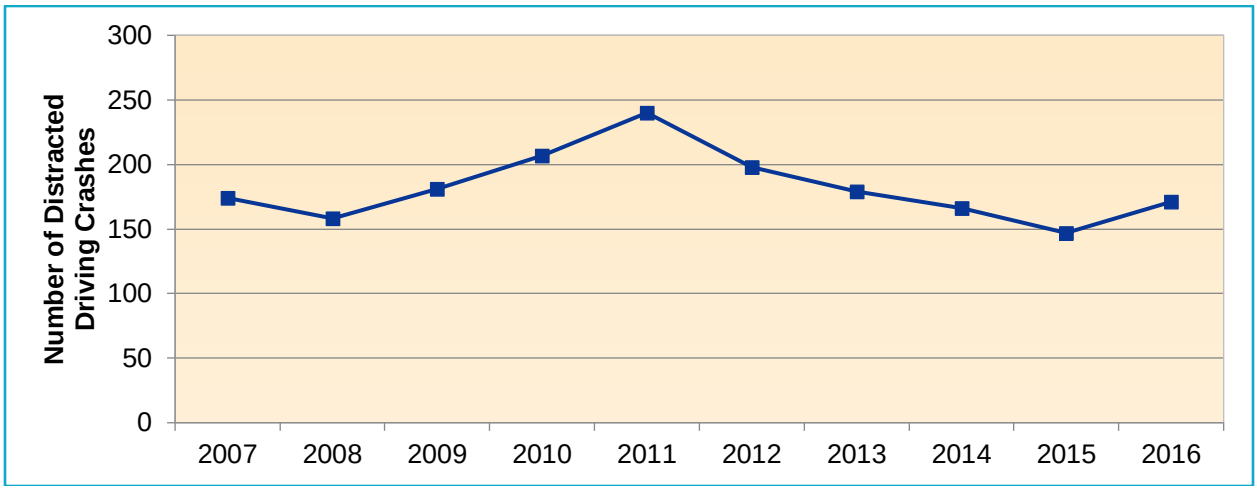
Figure 6: Average Annual Bicycle Crashes by County, 2007-2016 (Five-Year Average)



Source: PennDOT

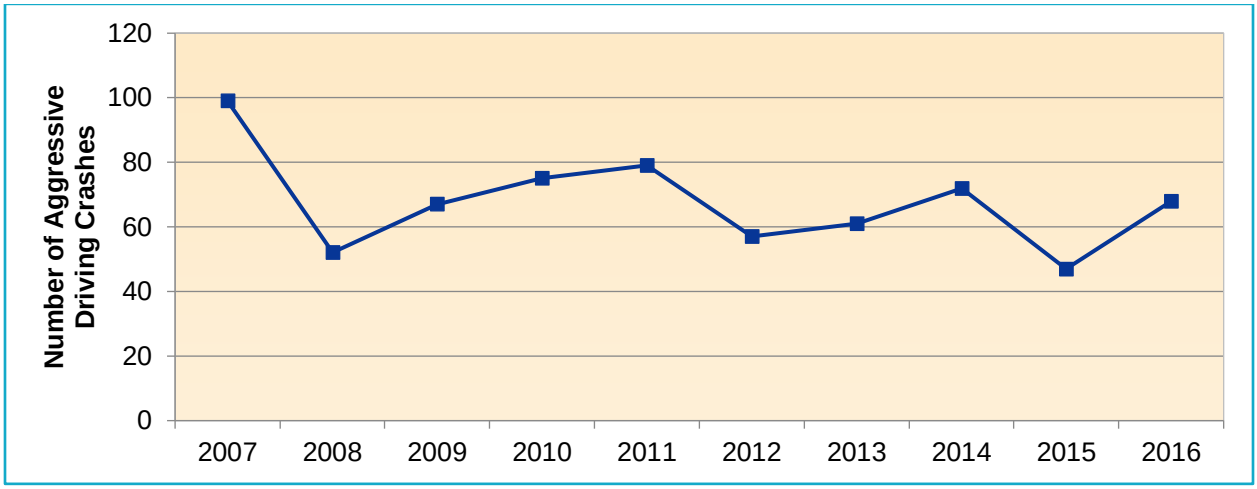
There is an ongoing safety concern with the growing national problem of distracted driving due to the use of cell phones and other electronics by drivers, along with the increase in aggressive driving. Figure 7 and Figure 8 indicate the number of crashes within the Northern Tier region attributed to distracted and aggressive driving behaviors, respectively. Crashes involving distracted driving peaked in 2011, then declined until 2016. Crashes involving aggressive driving have fluctuated over the past decade but showed an overall slight downward trend.

Figure 7: Northern Tier Distracted Driving Crashes



Source: PennDOT

Figure 8: Northern Tier Aggressive Driving Crashes, 2007–2016



Source: PennDOT

Distracted driving citations across Pennsylvania increased by 52 percent in 2017 alone—and have increased 172 percent since 2013—as shown in Figure 9. There has also been a growing concern for pedestrian safety due to rising numbers of people walking while using electronic devices. This can result in the pedestrian's inattentiveness to surroundings such as pedestrians, objects, or vehicles, especially when crossing streets. State and regional crash data does not presently distinguish which crashes were due to pedestrian inattention.

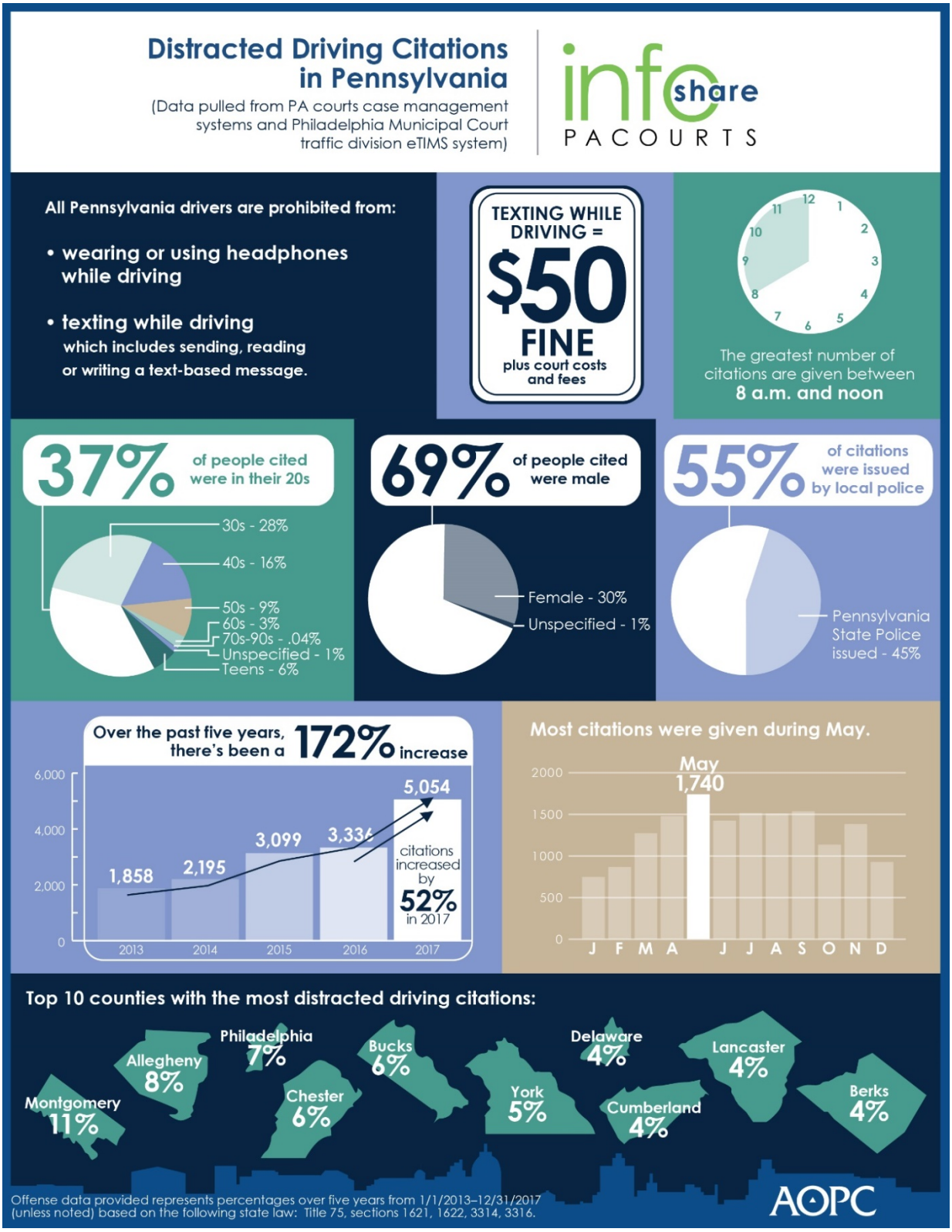
Increases in distracted driving citations in the Northern Tier region have been even higher than for the state as a whole—a 67 percent increase from 2016 to 2017 and 213 percent since 2013, as indicated in Table 5.

Table 5: Northern Tier Distracted Driving Citations by County, 2013–2017

	2013	2014	2015	2016	2017	Total
Bradford County	5	11	10	12	11	49
Sullivan County	0	1	2	4	3	10
Susquehanna County	9	7	10	15	37	78
Tioga County	5	7	7	6	11	36
Wyoming County	4	1	5	6	10	26
Total	**23**	**27**	**34**	**43**	**72**	**199**

Source: Administrative Office of Pennsylvania Courts

Figure 9: Distracted Driving Citations in Pennsylvania



Source: Administrative Office of Pennsylvania Courts

COUNTERMEASURES

Countermeasures to enhance pedestrian and bicyclist safety awareness are aimed at improving behaviors of pedestrians, bicyclists, and drivers through education and enforcement measures. Educational initiatives typically include teaching children and youth basic “road rules,” while refreshers for adults point out changes in evolving traffic laws. Training engineers and land use planners to incorporate bicycle and pedestrian facilities into land development regulations and transportation facility design would also be considered an educational initiative. Targeted enforcement campaigns raise public awareness of traffic laws through short-term, intensive safety patrols and media coverage.

Countermeasures are tailored to urban and rural locations based on many factors specific to each location. State programs such as the Safe Routes to School Program, PA Child Passenger Safety Program, and community traffic safety programs provide educational awareness information and opportunities for funding improvements to the region’s pedestrian and bicycle transportation network. Developing a strong relationship with the PennDOT Bicycle and Pedestrian Program Coordinator will be a top priority for Northern Tier transportation planning staff moving forward, in order to collaborate, identify, and implement new program and project improvement opportunities.

U.S. pedestrian fatalities increased 27% from 2007 to 2016, while all other traffic deaths decreased by 14%.

Demographics

This section provides demographic highlights of the Northern Tier's five counties, as relevant to bicycle and pedestrian travel needs. All data is sourced from the U.S. Census Bureau. Data from 2000 and 2010 are actual data from the U.S. Census. Data from 2006–2010 are American Community Survey (ACS) five-year estimates, data from 2012 are estimates, and data from 2017 are projections. Throughout this section, the term "United States" refers only to the continental United States, unless otherwise noted, due to data restrictions.

POPULATION CHARACTERISTICS

Nominal Population Growth

As of 2010, the population of the Northern Tier region was 182,663, an increase of approximately 1,655 residents since 2000—less than one percent growth. During the same period, Pennsylvania and the continental United States grew by 3.4 percent and 9.7 percent, respectively. Most of the Northern Tier's population growth was in Susquehanna and Tioga counties. Bradford and Sullivan counties decreased in population between 2000 and 2010.

Estimates of population change indicate that the Northern Tier region experienced population decline from 2016 to 2017—approximately -2.2 percent or almost 4,000 residents. Each county had a small population decline, with Sullivan and Tioga counties experiencing the greater losses.

> While the region's population total has been steady, demographic and socio-economic factors may have changed mobility needs.

Table 6: Total Population, 2000–2017

	2000	2010	2016	(Projection) 2017	Change 2000 to 2010	Change 2016 to 2017
Bradford County	62,761	62,622	61,808	60,853	-0.2%	-1.5%
Sullivan County	6,556	6,428	6,302	6,089	-2.0%	-3.4%
Susquehanna County	42,238	43,356	41,832	40,985	2.6%	-2.0%
Tioga County	41,373	41,981	42,031	40,793	1.5%	-2.9%
Wyoming County	28,080	28,276	27,975	27,322	0.7%	-2.3%
Northern Tier Region	181,008	182,663	179,948	176,042	0.9%	-2.2%
Pennsylvania	12,281,054	12,702,379	12,783,977	12,805,537	3.4%	0.2%
Continental U.S.	279,583,437	306,675,006	318,558,162	325,719,178	9.7%	2.2%
Source: U.S. Census Bureau						

Age Distribution

As shown in Table 7, in 2010 the largest age group in the Northern Tier was 50 to 54 years old (8.0 percent). By 2016, the largest age group was 55 to 59 years old (8.6 percent), suggesting residents are "aging in place." In fact, there were increases in all age brackets 50 and older.

Pennsylvania's largest age group was 10 years younger and showed the same tendency to age in place. Bradford's largest age group was slightly younger (45 to 49 in 2010, and 50 to 54 in 2016) than all other counties in the region.

Table 7: Percentage of Population by Age Bracket, 2010-2016

	Bradford		Sullivan		Susquehanna		Tioga		Wyoming		Northern Tier		PA	
	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016	2010	2016
Under 5 years	6.0	5.9	4.2	3.2	5.1	4.6	5.2	5.4	5.4	5.0	5.2	4.8	5.8	5.6
5 to 9 years	5.8	6.1	3.5	3.0	5.6	5.3	5.6	5.7	6.0	5.8	5.3	5.2	6.0	5.8
10 to 14 years	7.0	6.3	6.0	3.1	6.8	5.9	6.1	5.5	6.6	5.8	6.5	5.3	6.4	6.0
15 to 19 years	6.7	5.9	7.7	6.6	7.0	5.9	8.0	6.8	7.3	6.7	7.3	6.4	7.3	6.6
20 to 24 years	5.0	5.3	5.6	5.9	4.8	5.3	7.1	6.9	6.0	6.3	5.7	5.9	6.7	6.8
25 to 29 years	4.9	5.4	3.8	4.4	4.5	5.0	5.1	5.8	5.0	5.6	4.7	5.2	6.1	6.6
30 to 34 years	5.0	5.2	3.4	4.3	4.8	5.1	4.7	5.4	5.5	5.3	4.7	5.1	5.7	6.2
35 to 39 years	6.1	5.0	4.8	4.7	5.8	5.2	5.8	5.1	6.7	5.5	5.8	5.1	6.4	5.7
40 to 44 years	7.1	5.9	5.5	4.7	7.0	5.5	6.5	5.6	6.5	5.9	6.5	5.5	7.0	6.1
45 to 49 years	8.0	6.8	7.9	6.1	8.6	6.9	7.5	6.3	7.7	6.6	7.9	6.5	7.7	6.7
50 to 54 years	7.8	8.1	8.2	8.5	8.5	8.5	7.7	7.4	8.0	7.8	8.0	8.1	7.6	7.4
55 to 59 years	7.3	7.6	8.5	9.9	7.3	9.3	7.1	7.7	7.3	8.3	7.5	8.6	6.7	7.3
60 to 64 years	6.3	7.2	7.0	8.5	6.8	7.3	6.1	7.0	6.8	7.0	6.6	7.4	5.4	6.4
65 to 69 years	5.0	6.3	7.5	8.2	5.8	6.4	5.3	5.7	5.2	6.5	5.8	6.6	4.2	5.2
70 to 74 years	4.1	4.6	5.4	6.9	3.9	5.3	4.3	5.3	3.5	4.7	4.2	5.4	3.3	3.8
75 to 79 years	3.1	3.2	4.4	4.9	3.3	3.7	3.3	3.7	2.8	2.8	3.4	3.7	3.0	2.9
80 to 84 years	2.5	2.6	2.9	2.9	2.2	2.5	2.4	2.6	2.2	2.1	2.4	2.5	2.5	2.3
85+ years	2.3	2.5	3.7	4.0	2.2	2.2	2.2	2.2	1.7	2.2	2.4	2.6	2.3	2.5

Source: U.S. Census Bureau

Age reflects a person's eligibility for a driver's license or their dependence on others for travel. Yet all benefit from physical activities, such as walking and bicycling.

Additionally, the relative size of all age groups under 20 declined from 2010 to 2016. The same is true for residents ages 35 to 49, which together with declines in residents under age 20 may reflect the choices of parents and their children. This trend is true for Pennsylvania and for all Northern Tier counties, except Bradford where children ages 5 to 14 comprised a larger portion of the population in 2016.

Between these generational declines, rates climbed for those ages 20 to 24.

Population Under 25 Years

On average, the population under age 25 decreased by 9.9 percent across Northern Tier counties from 2000 to 2010—more than double the decreases of 2.5 percent and 4 percent in Pennsylvania and the U.S., respectively. As shown in Table 8, the largest percentage decrease in this young population segment was in Sullivan County, with a 12.8 percent decline. The smallest percentage decrease was in Tioga County, with a decline of 7.3 percent. According to the 2010 to 2016 estimates, all Northern Tier counties saw further decline in the numbers of residents under the age of 25, with Sullivan County again experiencing the largest percentage decrease (-12.7 percent). This general trend was also experienced in the state and nation.

Table 8: Population under 25, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	20,303	1,884	13,606	14,214	9,402	4,016,670	99,437,266
	32.4%	28.8%	32.3%	34.3%	33.5%	32.6%	35.3%
2010	18,718	1,611	12,286	13,371	8,586	4,053,536	104,853,555
	29.9%	25.1%	28.3%	31.8%	30.4%	31.8%	33.9%
2016	18,171	1,380	11,294	12,693	8,280	3,937,465	104,805,635
	29.4%	21.9%	27.0%	30.2%	29.6%	30.8%	32.9%
% Change 2000 to 2010	-7.7%	-12.8%	-12.4%	-7.3%	-9.3%	-2.5%	-4.0%
% Change 2010 to 2016	-1.7%	-12.7%	-4.6%	-5.0%	-2.6%	-3.1%	-2.9%

For children and youth, walking and biking in familiar neighborhoods help build independence.

Population 65 Years and Older

In all five Northern Tier counties, the percentage of the population age 65 and older has increased. On average across the region, the increase was 15 percent from 2000 to 2010, and 4.6 percent from 2010 to 2016. As shown on Table 9, the largest increase in this population from 2000 to 2010 was in Wyoming County, and the smallest was in Sullivan County. From 2010 to 2016, Tioga County is estimated to have experienced the largest growth in residents 65 and older, with Bradford County experiencing the least increase in this age group. The region, state, and nation also experienced an increase in population age 65 and older through 2016. The Northern Tier's rate of increase in the older population is estimated to be consistent with that of the U.S. Statewide, this older population decreased by 1.3 percent between 2000 and 2010 but increased 6.0 percent between 2016 and 2017. Nationally, the older population increased 4.8 percent in both timeframes.

Table 9: Population 65 and Older, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	9,865	1,434	6,546	6,608	3,717	1,919,165	34,991,753
	15.7%	21.9%	15.5%	16.0%	13.2%	15.6%	12.4%
2010	11,152	1,557	7,845	7,562	4,528	1,959,307	40,267,984
	17.8%	24.2%	18.1%	18.0%	16.1%	15.4%	13.0%
2016	11,929	1,695	8,408	8,238	5,147	2,134,924	46,190,933
	19.3%	26.9%	20.1%	19.6%	18.4%	16.7%	14.5%
Change 2000 to 2010	13.4%	10.5%	16.8%	12.5%	22.0%	-1.3%	4.8%
Change 2010 to 2016	8.4%	11.2%	11.0%	8.9%	14.3%	8.4%	11.5%

For older adults, age can reflect the potential for declining health factors that limit driving abilities.

Seniors (age 65 and older) comprise from 15.4 percent to 27.1 percent of the population in the five-county region. By county, the municipalities with the highest concentrations of seniors are:

- Bradford County – Townships of Wysox and Asylum (23.5 percent)
- Sullivan County - Townships of Fox, Elkland, Forks, Hillsgrove, Shrewsbury, and Davidson (27.1 percent)

- Susquehanna County – Clifford Township (25.4 percent)
- Tioga County – Wellsboro Borough (25.7 percent)
- Wyoming County – Eaton Township (24.2 percent)

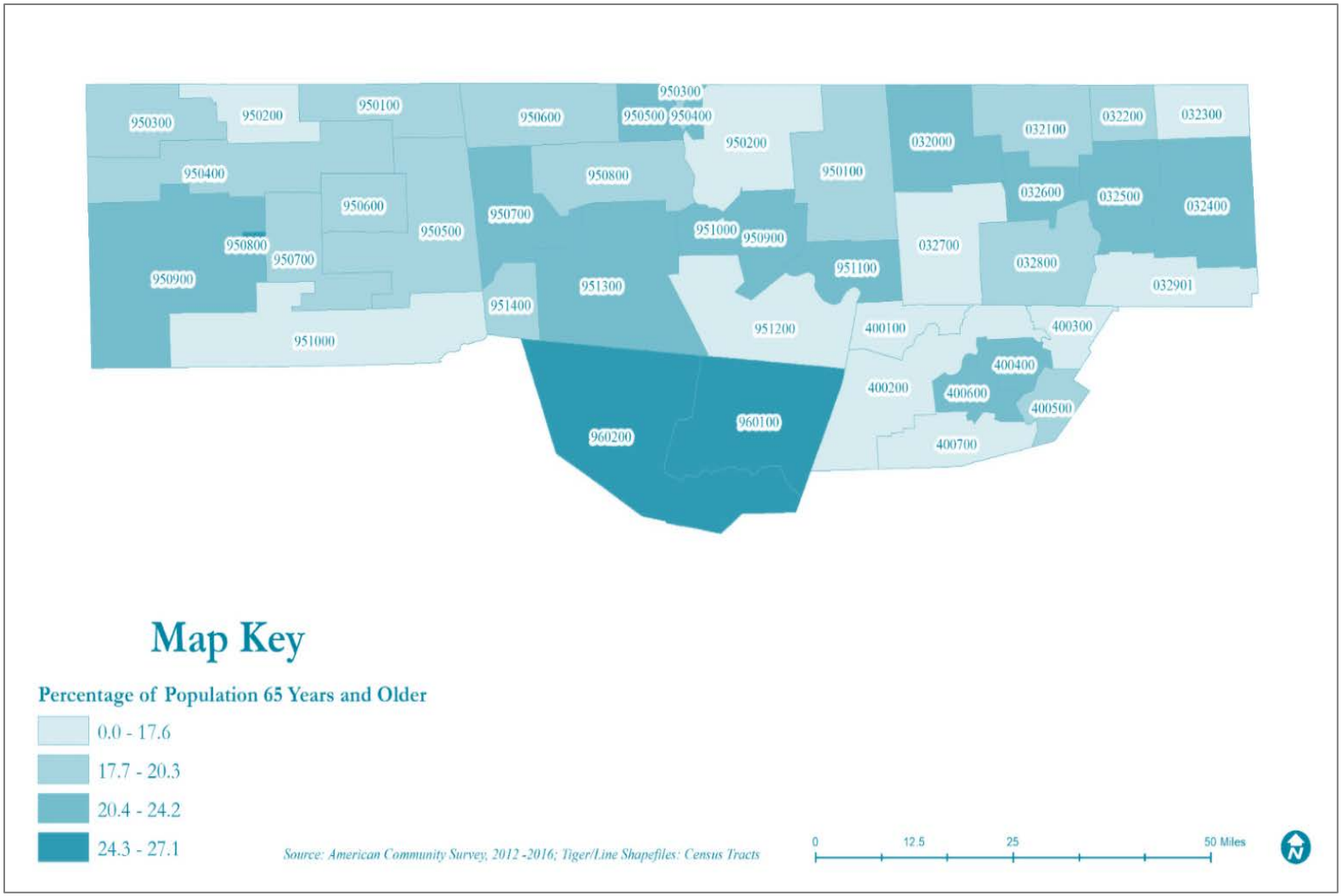
Figure 10 shows rates of senior populations by census tract across the region. Table 10 summarizes the lowest and highest rates of senior populations by census tract in each county.

Table 10: Census Tract Percentage Range of Seniors by County

	Low	High
Bradford	15.8%	23.5%
Sullivan	26.8%	27.1%
Susquehanna	17.2%	25.4%
Tioga	17.1%	25.7%
Wyoming	15.4%	24.2%

Source: American Community Survey, 2012 - 2016

Figure 10: Percentage of Population 65 Years and Older by Census Tract, 2016



POVERTY LEVELS

Statewide in 2016, the percentage of residents living in poverty was 13 percent. Across the Northern Tier, poverty rates ranged from 10.3 percent in Wyoming County to 13.4 percent in Tioga County, as shown on Table 11.

Table 11: Poverty Rates, 2000–2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
2000	11.8%	14.5%	12.3%	13.5%	10.2%	11%	12.4%
2010	13.5%	15.5%	11.3%	15.7%	10.9%	12.4%	13.8%
2016	12.4%	11.9%	12.8%	13.4%	10.3%	13.3%	15.1%
Change 2000 to 2010	+1.7%	+1%	-1%	2.2%	+0.7%	+1.4%	+1.4%
Change 2010 to 2016	-1.1%	-3.6%	+1.5%	-2.3%	-0.6%	-0.9%	+1.3%

Poverty can limit a person, family, or household to free or low-cost non-motorized travel.

More locally, poverty rates ranged from 7.1 percent to 23.0 percent, with census tracts in Bradford County having the both the highest and lowest percentages in the region. Table 12 illustrates the poverty ranges by census tract by county.

Table 12: Census Tract Percentage Range of 2016 Poverty Levels by County

	Low	High
Bradford	7.1%	23.0%
Sullivan	10.2%	13.2%
Susquehanna	9.1%	19.8%
Tioga	9.1%	18.4%
Wyoming	7.4%	13.9%

Source: American Community Survey, 2012 - 2016

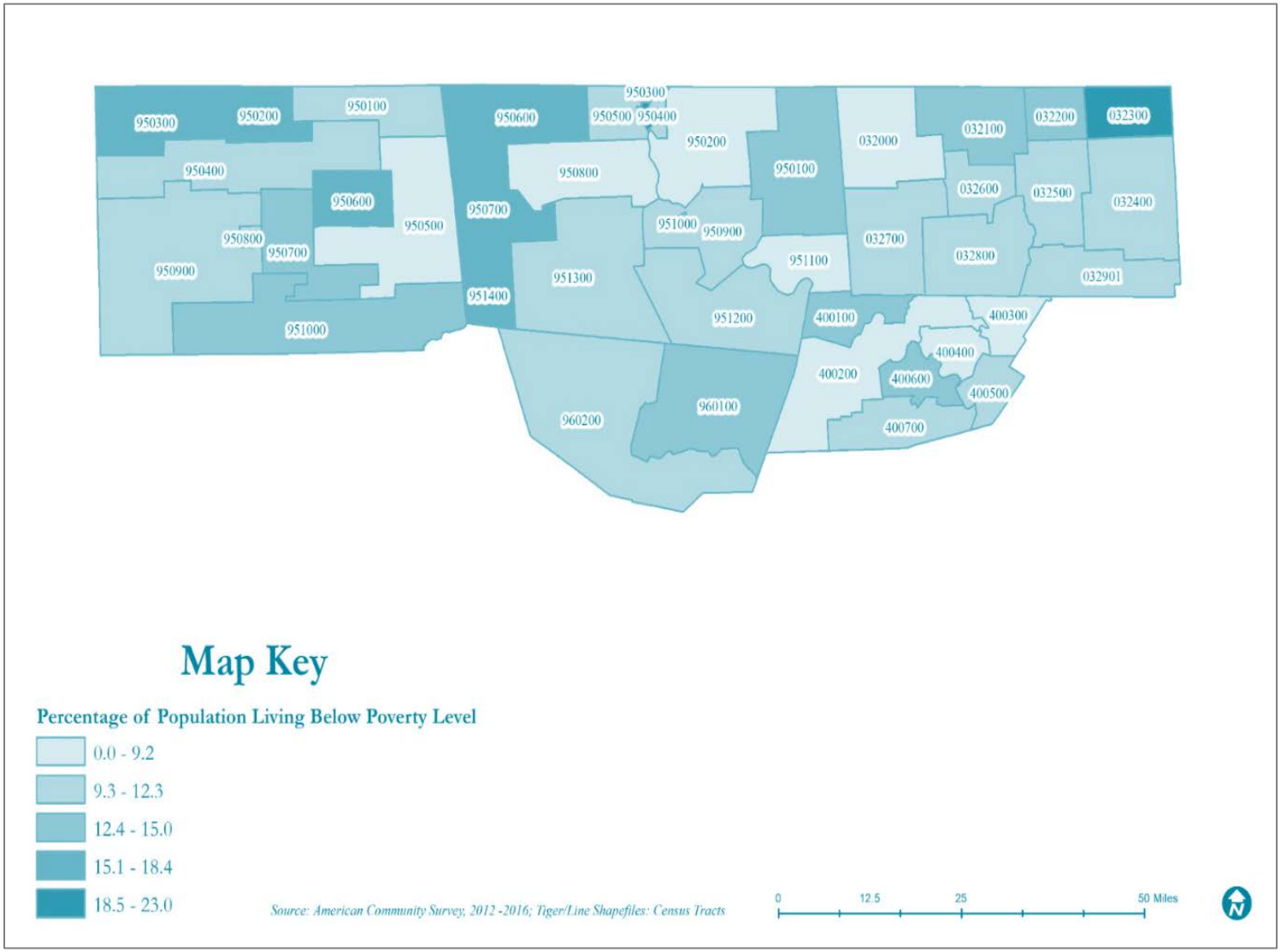
The census tracts with the highest poverty levels lie along the western border of Bradford County, the northeast corner of Susquehanna County, and the northwest corner of Tioga County, as well as the Mansfield area.

By county, the municipalities with the highest poverty levels are:

- Bradford County – Borough of Athens (23.0 percent).
- Sullivan County – Townships of Cherry, Laporte, and Colley (13.2 percent)
- Susquehanna County – Townships of Oakland and Harmony (19.6 percent)
- Tioga County – Richmond Township (18.4 percent)
- Wyoming County – Townships of Windham, Braintrim, and Meshoppen (13.9 percent)

Figure 11 shows rates of poverty in 2016 by census tract across the region.

Figure 11: Percentage of Population Living Below Poverty Level, by Census Tract, 2016



HOUSEHOLDS WITH NO VEHICLE AVAILABLE

Households in the Northern Tier are more likely to have at least one vehicle available than are households across the state and the nation. Households without a vehicle by county totaled 3,992 across the region and ranged from 4.6 percent in Wyoming County to 6.5 percent in Bradford County, as shown in Table 13.

Table 13: Households with No Vehicle Available, 2016

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA	US
No Vehicle Available	1,596	131	899	864	502	554,548	10,562,847
No Vehicle Available (%)	6.5%	4.9%	5.2%	5.3%	4.6%	11.1%	8.9%

At the census tract level, the percentage of households with no vehicle available ranges from 0.2 percent to 9.1 percent, as shown in Table 14 and mapped in Figure 12. Overall, the percentages are low. The Borough of Towanda in Bradford County has the highest percentage (9.1) of households with no vehicle available in the five-county region. The second-highest percentage (5.0) is located in Richmond Township in Tioga County.

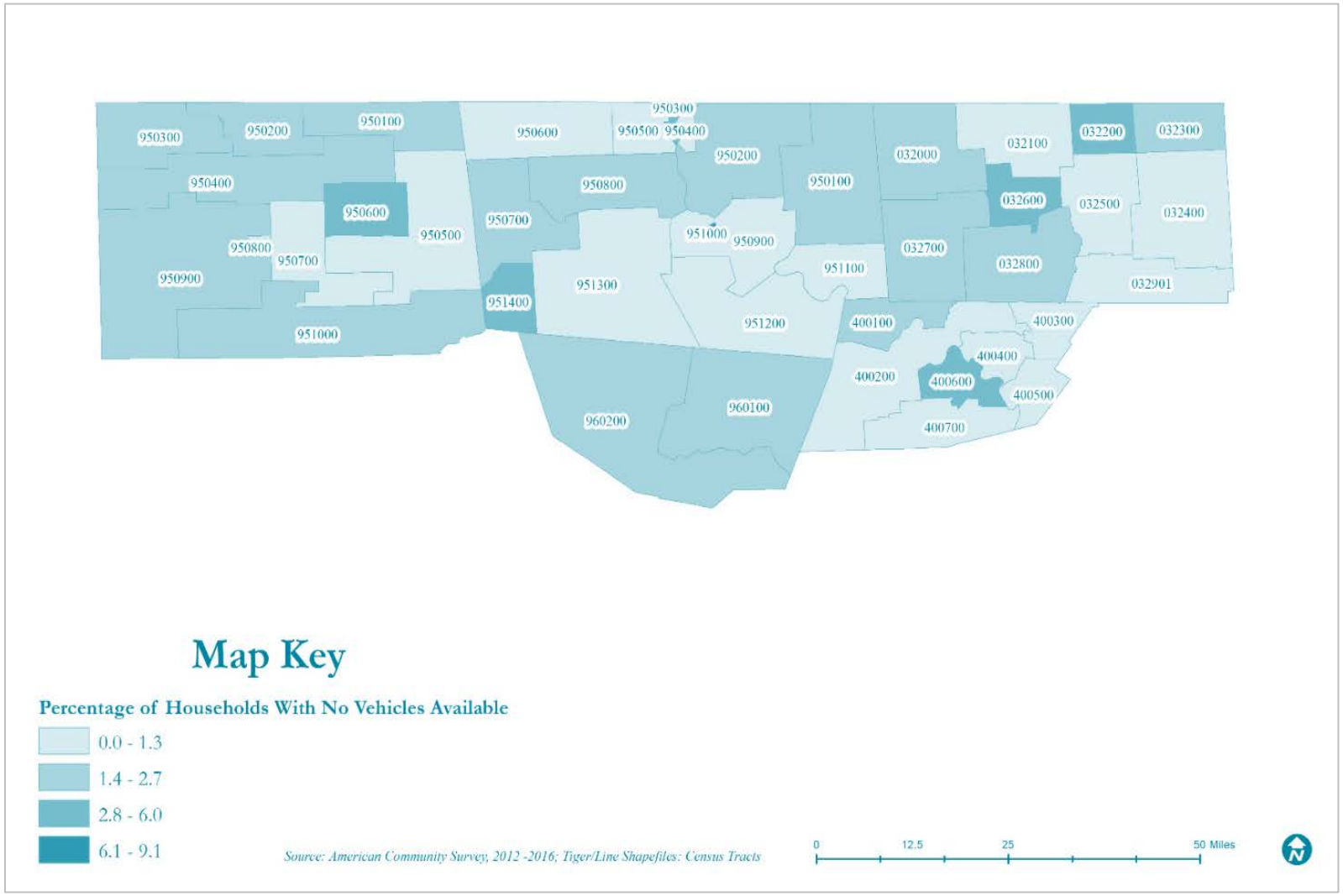
Table 14: Census Tract Percentage Range of Households with No Vehicle Available by County

	Low	High
Bradford	0.2%	9.1%
Sullivan	1.5%	2.0%
Susquehanna	0.4%	3.6%
Tioga	0.8%	5.0%
Wyoming	0.4%	3.4%

Source: American Community Survey, 2012–2016

Households without a vehicle or with fewer vehicles than workers are dependent on walking, bicycling, transit/transportation services, or on others for their travel.

Figure 12: Percentage of Households with No Vehicle Available by Census Tract, 2016



COMMUTING PATTERNS

In the five-county region, the majority of the workers 16 years of age and older drove to work by car, truck, or van—either alone or with others. Workers who walked ranked a distant second for Bradford and Tioga counties and third for Sullivan, Susquehanna, and Wyoming counties, where workers were more likely to work at home.

Table 15 shows the percentage of workers by primary travel mode to work by county. Table 16 shows estimated numbers of these workers.

Table 15: Primary Transportation to Place of Work (Percentage of Commuters)

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	PA
Car, truck, or van	89.3%	88.3%	91.7%	89.0%	91.0%	85.0%
Public transportation (excluding taxicab)	0.2%	0.3%	0.2%	0.7%	0.6%	5.6%
Walked	5.2%	3.9%	2.2%	4.9%	1.8%	3.8%
Bicycle	0.2%	0.0%	0.0%	0.3%	0.0%	0.5%
Taxicab, motorcycle, or other means	1.0%	0.7%	0.5%	0.8%	0.6%	0.9%
Worked at home	4.10%	6.8%	5.4%	4.4%	6.0%	4.2%

Source: American Community Survey, 2012 - 2016

Table 16: Primary Transportation to Place of Work (Estimated Number of Workers)

	Bradford County	Sullivan County	Susquehanna County	Tioga County	Wyoming County	Northern Tier
Public transportation (excluding taxicab)	55	9	30	128	73	295
Walked	1,361	102	401	883	235	295
Taxicab, motorcycle, bike, or other means	325	18	95	193	81	590
Worked at home	1,065	178	996	790	769	1180
Total	2,806	307	1,522	1,994	1,158	2,360

Bicycle and pedestrian facilities support safe travel for more 2,360 workers across the Northern Tier—that's roughly 2,000 commuter vehicles not on the roads.

Stakeholder and Community Involvement

Multiple methods of stakeholder and community engagement were used to inform this plan. Input was sought through a steering committee, e-mail correspondence and telephone interviews with stakeholders, a stakeholder summit, a public survey, and county-level public meetings. Participants helped identify bicycle and pedestrian assets and projects, define the value of bicycle and pedestrian facilities to communities and the regional economy, and ultimately develop, refine, and prioritize transportation goals, strategies, and actions.

STEERING COMMITTEE

Steering committee members provided guidance throughout the project. The members of the committee were:

- Justin Batiuk, PennDOT District 3-0
- Chris Brown, Progress Authority Economic Development
- Steve Fisher, PennDOT District 4-0
- Kerry Nelson, Tioga County Planning
- Bill Roosa, Tioga County Development Corporation
- Jean Ruhf, Endless Mountains Visitors Bureau
- Gina Suydam, Wyoming County Chamber of Commerce
- Lynelle Welch, Wyoming County Planning
- Matt Williams, Bradford County Planning
- Brian Baker, Northern Tier
- Ethan Sexton, Northern Tier
- Katie Prichard, Northern Tier

TELEPHONE INTERVIEWS

Telephone interviews and e-mail correspondence were used to obtain additional information on existing bicycle and pedestrian facilities as well as those under development. Telephone interviews were conducted with the following individuals and/or agencies:

- Linda Politi, Futurescapes, nonprofit for the development of the Diahoga Trail, May 24, 2018
- John Kulick, Wysox Township, a partner in the study of the Central Bradford County Trail, Thursday, June 7, 2018
- Kerry Nelson, Tioga County Planning, sponsor of the Marsh Creek Greenway, various e-mail correspondence

PUBLIC SURVEY

An online public survey was conducted in Summer 2018 for both the bicycle and pedestrian plan and the local coordinated transit plan. The survey link was posted on the NTRPDC website and e-mails and flyers were provided to stakeholders and partners. The survey notice is shown below and the survey instrument is provided as Appendix A.

There were 265 responses to the survey. Responses were submitted from every county and represented both in-town and rural residents. Key findings from respondents across the region included:

1. Seventy-five percent of respondents walk at least 10 minutes daily or weekly and 28 percent bike daily or weekly.
2. Most respondents choose to walk or bike because it's healthy—73 percent walk for health reasons, 45 percent bike for health reasons.
3. Less than three percent of respondents walk or bike primarily for cost or environmental reasons. Almost 6 percent of respondents walk for lack of a vehicle or license, while only two percent bike for that reason.
4. Most respondents choose to walk or bike as an exercise activity—71 percent walk for exercise, 50 percent bike for exercise. Twelve percent walk to services, shopping, or dining, but less than one percent bike for this reason.
5. Rail-trails and rural or low-volume roads were identified as preferred types of walking/biking locations. The most common characteristics of preferred walking and biking locations included: scenery/beautiful, safe, no cars/trucks, smooth, flat and well-maintained walking/biking surfaces.
6. When asked about unsafe places, most respondents listed state and local roads. The most common safety issues identified were: minimal road shoulder or berm, poor quality

or non-existent sidewalks, potholes, busy streets/intersections that are difficult to cross, and poor driver behavior or traffic law compliance (e.g., speeding).

7. When asked what issues make it difficult or impossible to walk or bike, respondents identified same or similar facility and safety concerns indicated for the previous questions.
8. The most commonly suggested safety improvements were designated/marked bike lanes, wider shoulders, signage, new trails, interconnected trails, additional and repaired sidewalks, and traffic enforcement of speed limits, the bicycle passing law, and no-texting law.
9. Forty-four respondents offered additional comments and suggestions that were pertinent to bicycle and pedestrian planning in the Northern Tier region. These comments expressed suggestions for: promotion of existing places to walk and bike, infrastructure/amenities to support use, evaluation of safety issues, education and programs to support bicycle and pedestrian use, and enforcement of traffic laws.

SYNERGY SUMMIT

A half-day summit was held on June 26, 2018, in Wysox, PA to solicit feedback on the preliminary inventory and assessment and input to goals and strategies for each of NTRPDC's three concurrent plans: Bicycle and Pedestrian Plan, Comprehensive Economic Development Strategy, and Coordinated Plan. More than 40 people attended the summit.

More than half of the attendees (about 25) provided input specific to the Bicycle and Pedestrian Plan through two 45-minute discussion sessions. The first session asked attendees for feedback on a chart summarizing the assessment of bicycle and pedestrian facilities and statements of need across the five-county region. The chart also presented potential actions to address the needs for attendee feedback. The discussion generated the following prioritized bicycle and pedestrian needs and preliminary goals:

- Bicycle PA routes are state-designated with no standard for bicycling conditions or maintenance. Routes have design hazards (edge rumble strips), operational hazards (high-speed traffic), and maintenance hazards (shoulder debris) that deter bicycling or make it unsafe.
    - **Preliminary Goal:** Make Bicycle PA Routes safe bicycling spines for intercommunity and intercounty travel.
- Other select roadways are used regularly by cyclists. Many of these roadways are selected for their scenic views and have a mix of good, fair, and poor bicycling conditions, with issues such as inadequate shoulder widths, poor shoulder condition, high-speed traffic, etc.

- **Preliminary Goal:** Make streets in towns and roadways within approximately three miles of towns bike-friendly.

- There are several existing off-road trails and rail-trails, intercommunity and local, including trail spurs and trail systems on public lands (>10 miles). About a dozen new trail concepts/proposals are currently active.
    - **Preliminary Goal:** Connect towns to rural assets (places and scenic views) with off-road trails that are suitable for walking and bicycling for all ages and abilities.
- Trail organizations, citizens' groups, municipalities, and counties face numerous challenges in developing new trails.
    - **Preliminary Goal:** Encourage people to work together: share knowledge and best practices; coordinate efforts; and partner to leverage resources for trail development. Note: There was minimal discussion of sidewalk systems and pedestrian safety.

Following the first session, all summit attendees reconvened to share the results of discussions among bicycle and pedestrian stakeholders, transit and transportation service stakeholders, and economic development stakeholders. This led to a discussion of mutually supporting goals and strategies. For example, economic development's priority for broadband service would ultimately enable or enhance technology solutions for bicycle and pedestrian safety/security, such as improvements to navigation, detection in traffic, and emergency response. Likewise, a regional bicycle and pedestrian network would strengthen quality of life, retain youth, and attract businesses.

The large-group discussion concluded that overarching themes should inform all three plans: public safety, health and wellness, knowledge of what exists today and what's possible in the future, partnerships, and leveraging resources.

Attendees returned to their focus groups to discuss strategies in support of plan goals. The bicycle and pedestrian stakeholders framed the following strategies for the bicycle and pedestrian plan:

<u>Bicycle PA routes and on-road bicycling</u>

1. Promote Bicycle PA Routes:
    a. Access, update, and maintain the previous Hiking and Biking trail map (Wiki map)
    b. Manage expectations for current and future bicycling conditions

2. Develop and implement detailed improvement and promotion of Bicycle PA Routes; use the western Bicycle PA Route Y Master Plan Design Guide as a model.

3. Coordinate with the State Bicycle and Pedestrian Master Plan.

4. Ideally, separate bike lanes from motorized vehicles.

5. Recognize the biggest challenge to new facilities is right-of-way acquisition; prioritize efforts to improve or add facilities to existing available right-of-way.

6. Improve signage to guide, raise awareness, and improve safe shared-road travel; use portable message signs as well as public service announcements, pavement markings, etc.

Off-road trail development

1. Promote existing trails:

    a. Access, update, and maintain the previous Hiking and Biking trail map (Wiki map)

    b. Manage expectations for current and future trail conditions

2. Network local trail development groups to share knowledge and experience, strengthen funding applications, etc.

    • NEPA Trail Council quarterly meetings

    • Local workshops

3. Form a region-wide organization to coordinate, provide expertise, and fund/champion bicycle and pedestrian improvements:

    • Tioga County Trail Authority; do other counties have a similar organization?

    • Bradford and Wyoming counties are members of the Susquehanna Greenway Partnership, which provides support to river towns

See Appendix B for the summit's Bicycle and Pedestrian Plan handout and summary report.

PUBLIC OPEN HOUSES

In mid-September 2018, NTRPDC hosted open houses in each of the five counties to invite public comments on draft goals, strategies, and actions for its updated Bicycle and Pedestrian Plan, Comprehensive Economic Development Plan, and Coordinated Plan (transit). The public notice was posted on the NTRPDC website (NorthernTier.org) and e-mailed to stakeholders with a request to share the notice with their clients and customers. A copy of the public notice and sample display boards are provided in Appendix C and D. This section summarizes attendance and the public comments related to bicycle and pedestrian needs, by county.

Bradford County

- Need a how-to model/template for the process of trail development. Most find difficulty achieving buy-in from landowners and securing funding. Include:
    - Education for opposed landowners, including testimonials by previously opposed landowners form other rural trail corridors
    - Incentives, e.g., property tax relief

- All travelers need to understand laws of sharing the road, e.g., four-foot passing distance from bicyclists
- Support trail development…for trail opportunities along abandoned rail lines, abandoned canal routes, and other former transportation corridors.
- Add bicycle lanes to Merrill Parkway in Towanda; bikes are not permitted on the Towanda Riverwalk.

Sullivan County

- There is an increased use of dirt roads for individual biking and larger cycling events.

Susquehanna County

- There is need for PennDOT to suggest possible bike/ped improvement options e.g., shoulder widening, advisory signing, pavement markings, etc., when meeting with municipalities during the project development process.
- Regarding pedestrians, sidewalks are an opportunity to interpret local history with walking routes and historic information about sites along the route.
- Bicyclists come from New York or Clark Summit to Northern Tier region to ride the hills, train on the mountain terrain. They are not locals, but they could be considered tourists.
    - For locals, focus on walking and nature trails.

Tioga County

- General discussion and support; no comments.

Wyoming County

- Safe Routes to School? Improved walks and accessibility
- Sidewalks throughout town (Tunkhannock) need maintenance. Sidewalks along a few blocks (Main St) in downtown were done recently. Need to address next blocks.
- Library has relocated to the western edge of town (Tunkhannock). Sidewalks don't extend beyond the fire company.
- Park in Laceyville allows overnight camping for paddlers on the water trail. (Some private landowners do the same.) Is there a sidewalk across the bridge to enable paddlers (now pedestrians) to reach stores and services in Laceyville?
- Improved water trails? Additional ramps/launches for boats; additional signage.

Implementation

After extensive outreach with stakeholders and the public, final goals, strategies, and actions were developed. The following implementation matrix summarizes the goals and strategies, provides actions steps to implement the strategies, and identifies lead and supporting entities as well as needed resources and estimated costs where available.

Goal A – Improve and expand safe places for bicycling.					
Action Steps	**Counties**	**Lead Partners**	**Key Stakeholders**	**Needed Resources**	**Estimated Cost**
Strategy 1: Raise awareness of on-road bicycling.					
a) Ensure signs for designated bicycle routes are in good condition.	• Bradford • Susquehanna • Tioga • Wyoming	• PennDOT County Maintenance • Municipalities		• Signage	
b) Promote (via Internet) facilities that accommodate on-road bicycling. c) Share the vision and plan for improving facilities and conditions in existing locations. d) Use temporary signage (e.g. variable message signs) to alert travelers to new road segments that accommodate bicyclists.	• Bradford • Susquehanna • Tioga • Wyoming	• Visitors Bureaus	• County Planning offices • Municipalities • Chambers of Commerce • Local and regional media	• Data and marketing staff time • Temporary use of PennDOT variable message sign (VMS) equipment • Online, media promotion	In-kind or nominal

Strategy 2: Assess and improve roadways that bicyclists already use.					
a) Develop and implement detailed plans to improve the Bicycle PA routes. b) Assess scenic corridors as complementary touring routes. Improve these routes, as feasible, working with the PennDOT Engineering District via PennDOT Connects or the local municipality. c) Assess state and local roads in towns and within ~3 miles for bicycle use and barriers to use and safety; improve as feasible or re-direct bicyclists to a safer, alternative location. d) Use temporary signage (e.g., variable message signs) to alert travelers to new road segments that have been improved to accommodate bicyclists.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• PennDOT • NTRPO	• Local officials • Road masters • Bicyclists – known individuals or formal clubs	• Professional planning consultant(s) • Temporary use of PennDOT VMS equipment	Variable based on plan or study area and level of detail

Goal B - Extend accessible pedestrian networks throughout towns, including to destinations at the edge of town.					
Action Steps	**Counties**	**Lead Partners**	**Key Stakeholders**	**Needed Resources**	**Estimated Cost**
Strategy 1: Evaluate sidewalk and crosswalk conditions and pedestrian use in towns and along roadways to the edge of town.					
a) Conduct community bicycle and pedestrian audits in core communities. b) Document residents' pedestrian activity, (e.g., through outreach in conjunction with community planning efforts) and define needs such as problem locations and missing connections.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• Municipalities • County Planning offices	• NTRPO • Chambers of Commerce • Bicycle and pedestrian generators, e.g., schools, libraries, etc.	• Online audit tools or professional assistance	• In-kind or nominal if online tools are used

Strategy 2: Extend sidewalks and infill gaps in existing sidewalk systems; ensure winter and long-term maintenance.					
a) Include sidewalk requirements and standards in land development ordinances applicable to existing towns and adjacent development corridors. b) Allocate CDBG funding to install and/or repair sidewalks that help low- and moderate-income residents reach daily destinations on foot. c) Share pedestrian needs with PennDOT Engineering Districts via PennDOT Connects for coordination.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• Municipalities • County officials • County Planning offices	• Low- and moderate-income neighborhoods	• Model ordinance provisions appropriate to towns and villages • Education • Amendment review and adoption (staff time)	• In-kind or nominal for policy and coordination effort • Varied capital improvement project costs based on sidewalk gap or replacement dimensions; state and federal funding opportunities are listed on page 55.

Goal C - Extend, interconnect, and establish new trails.					
Action Steps	**Counties**	**Lead Partners**	**Key Stakeholders**	**Needed Resources**	**Estimated Cost**
Strategy 1: Promote use of existing multi-use and pedestrian trails.					
a) Centralize (or cross-reference) online information about trails in the region. b) Publicize online trail information in conjunction with community and regional news outlets. c) Measure or estimate trail usage, (e.g., biennially) to inform promotional methods and targets.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• Visitors Bureaus • Local and regional media • Trail organizations	• Municipalities • Health systems/health advocates	• Data and marketing staff time • Pedestrian counters, or one shared counter that is rotated among facilities	
Strategy 2: Support development of additional trails.					
a) Facilitate networking among localized trail development groups to share knowledge and experience. b) Promote technical assistance programs that help communities and organizations develop trail projects.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• NTRPO • County Planning offices	• Trail organizations • PA DCNR regional advisor	• Venue and promotional efforts	• In-kind or nominal

Goal D - Alert all travelers to traffic laws and safe practices for shared-road travel.					
Action Steps	**Counties**	**Lead Partners**	**Key Stakeholders**	**Needed Resources**	**Estimated Cost**
Strategy 1: Inform travelers through signage and education.					
a) Install signage and pavement markings to indicate shared-road use. b) Work with local media to promote public understanding of shared-road travel practices, signage and pavement markings, and traffic laws pertaining to bicycle and pedestrian safety—particularly during National Bike to Work Week.	• Bradford • Sullivan • Susquehanna • Tioga • Wyoming	• PennDOT Districts • Municipalities	• Local and regional media	• Road maintenance staff	

Technical Assistance and Funding Sources

In addition to partnerships there are several key federal and state sources of technical and financial assistance to help NTRPO, the counties, and municipalities to implement the various actions in this plan. Table 17 summarizes the sources.

Table 17: Federal and State Technical Assistance and Funding Sources

Source	Description
	Federal
FHWA Bicycle and Pedestrian Program and Guidance	FHWA's Bicycle and Pedestrian Program supports transportation agencies and communities in improving bicycle and pedestrian conditions through policy, funding, and resources. https://www.fhwa.dot.gov/environment/bicycle_pedestrian/ Two FHWA publications of particular relevance to the Northern Tier are: **Incorporating On-Road Bicycle Networks into Resurfacing Projects** https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/resurfacing/resurfacing_workbook.pdf and **Small Town and Rural Multimodal Networks** https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/
U.S. Department of Transportation Transit, Highway and Safety Funds	A summary of federal funding sources applicable to bicycle and pedestrian projects and activities is available from the Federal Highway Administration. Its table of "Bicycle and Pedestrian Funding Opportunities: U.S. Department of Transportation Transit, Highway and Safety Funds," (August 2018) is available online at https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf. The table identifies 15 federal funding sources (listed below), indicates potential eligibility for bicycle and pedestrian projects and activities, notes basic program requirements, and provides links to specific program guidance. BUILD: Better Utilizing Investments to Leverage Development Transportation Discretionary Grants INFRA: Infrastructure for Rebuilding America Discretionary Grant Program TIFIA: Transportation Infrastructure Finance and Innovation Act (loans) FTA: Federal Transit Administration Capital Funds ATI: Associated Transit Improvement (1% set-aside of FTA) CMAQ: Congestion Mitigation and Air Quality Improvement Program HSIP: Highway Safety Improvement Program NHPP: National Highway Performance Program STBG: Surface Transportation Block Grant Program TA: Transportation Alternatives Set-Aside (formerly Transportation Alternatives Program)

Source	Description
	RTP: Recreational Trails Program SRTS: Safe Routes to School Program / Activities PLAN: Statewide Planning and Research (SPR) or Metropolitan Planning funds NHTSA 402: State and Community Highway Safety Grant Program NHTSA 405: National Priority Safety Programs (Nonmotorized safety) FLTTP: Federal Lands and Tribal Transportation Programs (Federal Lands Access Program, Federal Lands Transportation Program, Tribal Transportation Program, Nationally Significant Federal Lands and Tribal Projects)
FHWA Bicycle and Pedestrian Coordinator	**Michael Castellano** Federal Highway Administration, Pennsylvania Division 228 Walnut Street Room 508 Harrisburg, PA 17101-1720 717-221-4517 mike.castellano@dot.gov **Assessments** Karyn Vandervoort, 717-221-2276 karyn.vandervoort@dot.gov Jon Crum, 717-221-3735 jonathan.crum@dot.gov Jennifer Crobak, 717-221-3440 jennifer.crobak@dot.gov
Commonwealth of Pennsylvania	
Transportation Alternatives Set-Aside Program	Funds programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, environmental mitigation, trails that serve a transportation purpose, and Safe Routes to School projects. http://www.penndot.gov/ProjectAndPrograms/Planning/Pages/Transportation-Alternatives-Program.aspx#.VzHrPDbmq3A
PennDOT Multimodal Transportation Fund	Provides dedicated funding for multimodal transportation systems, including bicycle and pedestrian improvements. http://www.penndot.gov/ProjectAndPrograms/MultimodalProgram/Pages/default.aspx#.VzHstDbmq3A
DCED Multimodal Transportation Fund	Provides grants to encourage economic development and ensure that a safe and reliable system of transportation is available to Pennsylvania residents. Funds may be used for development, rehabilitation, and enhancement of transportation assets to existing communities, including streetscape, lighting, sidewalk enhancement, pedestrian safety, connectivity of transportation assets, and transit-oriented development. https://dced.pa.gov/programs/multimodal-transportation-fund/
Act 13/Marcellus Legacy Fund	Provides for the distribution of unconventional gas well impact fees to counties and municipalities for 13 approved uses, including public infrastructure construction and planning, and to Commonwealth agencies for statewide projects and programs, including the planning, acquisition, development, rehabilitation, and repair of greenways, trails, and recreation projects. https://dced.pa.gov/programs-funding/commonwealth-financing-authority-cfa/act-13-programs/

Source	Description
PennDOT Connects	Provides an opportunity for local governments to share community and economic development goals and specific local needs with PennDOT's project team in advance of scoping a transportation project, and to collaborate on joint a solution. This opportunity is offered for each project during the preparation of Transportation Improvement Program (TIP). In some cases, a local need, such as a facility for bicycles and/or pedestrians, may be integrated into PennDOT's project scope where eligible state or federal funds are available. In some cases, a local government funds the local need (with local or grant funds) and design and construction proceed cooperatively. In other cases, the local need may be declined or deferred. It is important to note that if bicycle and/or pedestrian accommodations are included in a PennDOT project as a result of the PennDOT Connects process, local governments will be expected to assume responsibility for long-term maintenance of the bicycle and/or pedestrian facilities. https://www.penndot.gov/ProjectAndPrograms/Planning/Pages/PennDOT-Connects.aspx
PennDOT Connects Support Hub	Provides information and technical assistance to local governments regarding participation in transportation planning and specifically in the PennDOT Connects process. The Support Hub compiles resources, posts news related to statewide transportation planning and in-person training events, and hosts online training for municipal officials and staff. Registered users can also request free technical assistance from PennDOT's experts. Assistance is available is by phone, by e-mail, or in-person to address land use and transportation planning questions. https://paconnects.org/
PennDOT Bicycle and Pedestrian Coordinator	Roy Gothie PennDOT, Multimodal Deputate 400 North Street, 8th Floor Harrisburg, PA 17105-2047 717-783-3991 rgothie@pa.gov
WalkWorks	Supports the development of a statewide network of walking routes and walking groups. This program of the Pennsylvania Department of Health and the University of Pittsburgh Graduate School of Public Health Center for Public Health Practice supports local development of walking routes with informational webinars and presentations for municipal officials and staff and walking advocates. https://www.health.pa.gov/topics/programs/WalkWorks/Pages/WalkWorks.aspx The PA Walkable Communities Collaborative webpage hosts tools and guidance to assist communities in their planning, development and advocacy efforts. https://www.health.pa.gov/topics/programs/WalkWorks/Pages/PA-Walkable-Communities.aspx
DCNR Community Conservation Partnerships Program (C2P2)	**Keystone Recreation, Park, and Conservation Fund (Keystone Fund)** Provides grants for recreation, park, and conservation planning, acquisition, development, education, and technical assistance; planning for and acquisition of open space and critical habitat by land trusts; and grants to nonprofit organizations and municipalities for rivers conservation and rails-to-trails planning, acquisition, and development activities.

Source	Description
	http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_001998.pdf **PA Recreational Trails Program** Provides funding for the construction, renovation, and maintenance of trails and trail-related facilities for both motorized and non-motorized recreational trails, the purchase or lease of equipment for trail maintenance and construction, and the development of educational materials and programs. These are federal funds provided by FHWA and administered by the Pennsylvania Department of Conservation & Natural Resources (DCNR), Bureau of Recreation & Conservation (BRC) in consultation with the Pennsylvania Trails Advisory Committee. https://www.fhwa.dot.gov/environment/recreational_trails/legislation/#recreational

Appendix A: Public Survey

DO YOU WALK, BIKE, OR TAKE THE BUS?
USE SHARED-RIDE OR OTHER SERVICES?

What would make it easier to get where you need to go?

Go to https://www.surveymonkey.com/r/Travel-in-NT-PA and complete a short survey to help us improve travel options in the Northern Tier—then pass this card to a friend.
Survey open until August 17, 2018.

For other help in sharing your ideas, call
Brian Baker: 570-265-1540 or
Katie Prichard: 570-265-1532.

northern tier regional planning & development commission

This page design was printed as “business cards” and distributed to stakeholders to encourage a strong survey response. It was also provided to local libraries as a full-page flyer for posting on bulletin boards or the circulation desk.

Northern Tier Travel Needs Survey

IN BRADFORD – SULLIVAN – SUSQUEHANNA – TIOGA – WYOMING COUNTIES

Northern Tier's regional planners are updating three plans: a bicycle and pedestrian plan, a transportation services (transit) coordination plan, and an economic development plan.

Please help us understand your needs for walking and biking and transportation services to regular destinations through this survey. Your response will help to prioritize projects to meet these needs.

The survey has two sections about your travel, and one section about you. In total, the survey takes 7-12 minutes to complete.

Your response is anonymous. The survey will close August 17, 2018. Thank you for sharing your thoughts about how to improve transportation!

If you have more to share or questions for us, contact Michelle Brummer, project manager, at mbrummer@gfnet.com, or call 1-717-763-7212 ext 2177.

In what type of community do you live?

- ◯ Town or borough community
- ◯ Village or rural community

Do you want to answer a few questions about walking and bicycling? If yes, we'll start you here. If no, we'll jump to the transportation services section.

- ◯ Yes
- ◯ No

Public Survey for Northern Tier Transportation Plans

About Walking and Biking

How often do you walk or bike at least 10 minutes at a time?

	Every day	About once a week	A few times a month	A few times a year	Never
Walk	◯	◯	◯	◯	◯
Bike	◯	◯	◯	◯	◯

What is your most frequent destination/purpose for walking and biking?

	To work, training, or school	To services, shopping or dining	To parks, ballfields, trails, etc.	To reach transit	As activity or exercise	I don't walk/bike often
I often walk						
I often bike						

What's your primary reason for walking and biking over other forms of travel?

	It's low-cost	It's healthy	It's fun/social	It's clean, low tech (low pollution)	I have no car/no license	I don't walk/bike often
I walk because						
I bike because						

Where is your favorite place or route to walk or bike and why?

SAFETY IN PLACING BUILT FOR WALKING OR BIKING Are there places where you regularly walk or bike that are unsafe or make you feel unsafe? If so, where are those places and what are the safety issues? Please be as descriptive as possible - e.g., identify road name(s), municipalities, landmarks, approximate distance from a known intersection, etc. List any improvements that would allow you to walk or bike more safely at these locations.

CONDITIONS IN PLACES NOT BUILT FOR WALKING OR BIKING List issues in on-road and off-road routes that make it difficult or impossible to walk or bike. Tell us what you think is required to fill gaps or fix issues.

List two or more destinations that you would like to see connected with bike-friendly and walk-friendly routes.

Select up to 3 types of improvements that you feel would be most helpful in making our region more bike- or walk-friendly.

- [ ] No additional programs/activities are needed
- [ ] No additional facilities or improvements are needed
- [ ] Wider road shoulders
- [ ] Bike lanes on roadways
- [ ] Providing crosswalks or improving existing crosswalks
- [ ] ADA-compliant sidewalks and crosswalks
- [ ] Pedestrian signals at intersections
- [ ] Group bike rides
- [ ] Education for drivers and bicyclists on traffic laws and safety
- [ ] More/Better enforcement of traffic laws, including speed limits
- [ ] Other

Is there anything else you would like us to know or to think about as we prepare the regional bicycle and pedestrian plan?

Do you want to answer a few questions about transportation services (need for bus routes, shared-ride services, etc.)? If yes, we'll go there next. If no, we'll jump to questions about you.

- ( ) Yes
- ( ) No

Public Survey for Northern Tier Transportation Plans

About Transportation Services

In the last six months, have any household members missed any of the following activities due to a lack of transportation? Please check all that apply.

- [ ] Work
- [ ] Medical Appointments
- [ ] Shopping
- [ ] Family/Friends Visits
- [ ] Entertainment
- [ ] Social Services
- [ ] Education
- [ ] Religious
- [ ] Other, please specify
- [ ] Not applicable

Are you aware of transportation services available in your county?

- ( ) Yes
- ( ) No
- ( ) Not sure

Do you have difficulty getting transportation services?

- ( ) Yes; please explain below.
- ( ) No
- ( ) Not sure

Explain here.

What is good about the transportation services in your county and the region?

Where you would like to travel but can't get to because there aren't transportation services?

What can be done to improve transportation services in your county or the region?

About You

What is your age?

- ◯ 17 or younger
- ◯ 18-20
- ◯ 21-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60 or older

What is your gender

- ◯ Male
- ◯ Female
- ◯ Prefer not to say

What city or town do you live in, according to your mailing address?

What county do you live in?

- ◯ Bradford
- ◯ Sullivan
- ◯ Susquehanna
- ◯ Tioga
- ◯ Wyoming

Thank you for sharing your needs for travel and suggestions for improvements.

Appendix B: Bicycle and Pedestrian Plan Handout

Summary Assessment Findings for Bicycle/Pedestrian

	The Northern Tier region has this		We could have this	If we do (or continue doing) this
A	Four Bicycle PA Routes that are designated and signed through the region.	• 3 north-south routes (G, J, and L) • 1 intersecting, east-west route (Y) • On-road bicycle accommodations vary	**Designated and signed Bicycle PA routes that fully accommodate bicyclists in current or alternative locations.**	• Evaluate accommodations and assess needed improvements on existing routes vs. route re-locations e.g., to a lower traffic volume location. • Work with PennDOT District Bike/Ped Coordinators to consider integration of bike and pedestrian infrastructure/ safety improvements into district maintenance program projects and TIP projects (PennDOT Connects).
B	Other roadways used by cyclists—many of which have shoulders comprised of gravel, in poor condition or missing.	• Strava shows bicyclist athletes most heavily using: » State and local roads in the Towanda-Wysox area » SR 3008 (parallel to PA 414) » State and local roads in the Valley area » PA 154, PA 42, Hoppestown Rd, SR 3009/World's End Rd » State and local roads in the Wellsboro-Mansfield area » State and local roads south and east of Tunkhannock • Past plans also note use/need for improvement of: » Sullivan: SR 3002/Allegheny Ave » Susquehanna: PA 706, PA 29, PA 92, and 167 » Tioga: SR 4002/Charleston Rd	**Bicycle facilities in towns and bike-friendly roadways within ~3 miles of towns (for up to 10-mile rides/loops from towns).**	• Evaluate secondary roadways and streets for designated bike routes. • Consider rumble strips on roadways for audible lane departure warning.
C	Relatively few reportable crashes involving bicyclists and no crash clusters over the past 10 years.	• 42 such crashes, 39 injuries, and 4 fatalities • 93% of crashes involved injury; 10% involved a fatality • Non-reportable crashes are unknown	**Fewer crashes involving bicyclists, fewer injuries and fatalities, and greater observable use.**	• Support bicycling education for health, safety, and comfort. • Promote new routes with events and maps.
D	Community-wide sidewalk systems, including walking paths, in approximately 40 boroughs.	• Connectivity with development in adjacent townships? • Crosswalks? Pedestrian signals at select locations? ADA? • Maintenance?	**Complete, accessible sidewalks (pedestrian) systems that reach daily destinations in or near towns.**	• Evaluate sidewalk and crosswalk conditions—in downtowns, along roadways to the edge of town, and in adjacent neighborhoods. • Work with PennDOT District Bike/Ped Coordinators to consider integration of bike and pedestrian infrastructure/ safety improvements into district maintenance program projects and TIP projects (PennDOT Connects).

Continued next page

	The Northern Tier region has this		We could have this	If we do (or continue doing) this
E	Four major off-road trails and rail-trails, including trail spurs and trail systems on public lands (>10 miles), that periodically parallel and/or cross streets and highways, plus four community trails <10 miles.	1. Mid State Trail 2. Pine Creek Rail-Trail, Triple Divide Trail 3. Loyalsock Trail (partial R-T) 4. 4D&H Rail-Trail; O&W Rail-Trail 5. Railroad Grade Trail/Ives Run, Mansfield 6. Lambs Creek Bike and Hike Trail, Mansfield 7. Endless Mountain Trail (R-T), Montrose 8. Conservancy Narrow Gauge Rail Trail (R-T), Eagles Mere	**Off-road land trails that connect towns to rural assets (places and scenic views) that are suitable for walking and bicycling for all ages and abilities.**	• Extend and add spurs to existing trails.
F	Relatively few reportable crashes involving pedestrians and no crash clusters over the past 10 years.	• 178 such crashes, 169 injuries, and 12 fatalities • 95% of crashes involved injury; 7% involved a fatality • Non-reportable crashes are unknown	**Fewer crashes involving pedestrians, fewer injuries and fatalities, and greater observable use.**	• Identify new trail connections to rural assets.
G	Multiple locally active trail concepts/proposals (plus 11 DCNR-identified trail gaps) with little communication or networking to share intent, status/progress, best practices, and lessons learned.	1. Central Bradford County Trail, Towanda-Wysox 2. Diahoga Trail, Athens 3. Loyalsock (SF?) to Ricketts Glen (SP?) Trail 4. Susquehanna Depot Trail 5. Tunkhannock to Falls (land or water trail?) 6. Wyalusing River Trail (land or water trail?) 7. Wyalusing Creek Water Trail (same as above?) 8. Bowman's Creek Water Trail, Wy Co 9. Marsh Creek Greenway, Wellsboro (DCNR #158 and #274)	**Formal and informal partnerships that leverage knowledge/data, funding/in-kind resources for bike-ped development.**	• Communicate with governmental partners » Multi-Municipal » Municipal-County-Northern Tier • Communicate with private partners to build interest in project benefits and sponsorship » Health » Economy (workforce & tourism) » Heritage (character and open space conservation & tourism) » Equity (mobility for low-income residents)
H	Rural characteristics that make vehicles the most practical means of travel for most trips—and therefore a population generally not geared toward bike/ped issues.	• Little to no safety education • Limited law enforcement capacity • Limited encouragement/promotion » One event: Tour de Shunk » Few local roads designated/signed » Little to no signage/route maps/wayfinding • No regular process for evaluation	**Safety awareness/mutual respect among all travelers, including bicyclists, pedestrians and motorists.**	• Share-the-road education campaigns (e.g., what the 4-foot passing distance looks like from the driver's seat).

Appendix C: September 2018 Open House Public Notice

Public Notice

Open House Series to Feature Transportation and Economic Development

The Northern Tier Regional Planning and Development Commission will host an open house in each of its member counties—Bradford, Sullivan, Susquehanna, Tioga and Wyoming—to take public comments on its updated priorities for bicycle and pedestrian mobility, transportation services (bus, shared ride, and other transportation assistance), and economic development.

Stop in to learn what the Commission has prepared as priorities for the next five years, then give your perspective on their value to your community and to our region. Your input strengthens our understanding and decision-making!

Open House Schedule

- **Mansfield, Tioga County** on Monday, September 17, 2018 from 2-4pm at the Mansfield Borough building, 14 South Main Street, Mansfield, PA 16933.
- **Dushore, Sullivan County** on Tuesday, September 18, 2018 from 9-11am at the DCNR District Office, 6735 US Highway 220, Dushore, PA 18614.
- **Towanda, Bradford County** on Tuesday, September 18, 2018 from 2-4pm at the Stoll Natural Resource Center, 200 Lake Rd #E, Towanda, PA 18848.
- **Tunkhannock, Wyoming County** on Wednesday, September 19, 2018 from 9-11am at the Wyoming County EMA Building, 3880 Sr 6 Tunkhannock, PA 18657.
- **Montrose, Susquehanna County** on Wednesday, September 19, 2018 from 2-4pm at the Susquehanna County Office Building conference room, 81 Public Avenue, Montrose, PA 18801.

Each facility is accessible and has convenient parking. If you need special accommodations, please contact **Brian Baker** at **570-265-1540** or **Katie Prichard** at **570-265-1532**.

Summary priorities and recommendations will also be available on the Northern Tier website, https://www.northerntier.org/, under New Updates beginning September 14, 2018. Public comments received by October 15 will be considered prior to the Commission's approval, which is scheduled for Friday, October 19.

Appendix D: Open House Display Boards

northern tier regional planning & development commission

Northern Tier's Regional Plan Updates

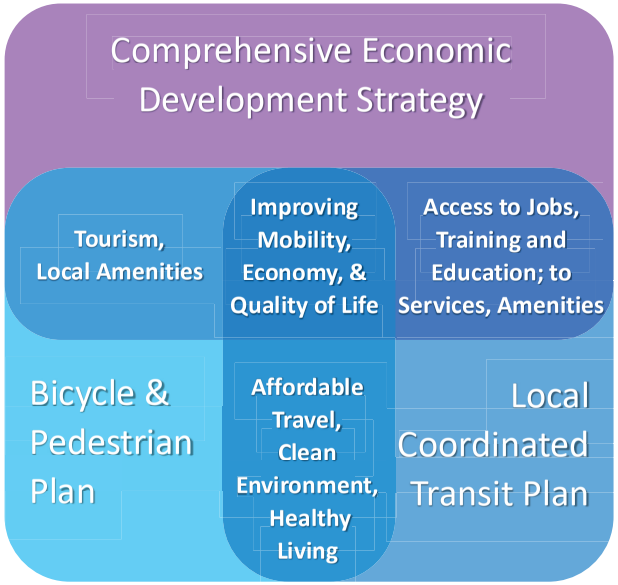
Bicycle and Pedestrian Plan

Coordinated Transit-Transportation Service Plan

Comprehensive Economic Development Strategy

September 17, 18, and 19, 2018
Mansfield Borough Hall, Tioga County
DCNR District Office, Dushore, Sullivan County
Stoll Natural Resource Center, Wysox, Bradford County
EMA Building, Tunkhannock, Wyoming County
County Office Building, Montrose, Susquehanna County

About Our 3 Plan Updates



Our regional plans for transportation and economic development…

- **Prioritize** our current needs
- **Envision** attainable future outcomes
- **Describe** local and regional action steps
- **Position** us for state and federal funding

Our regional plans work together to align improvements in access, infrastructure, and amenities for our communities and economy.

Your Opinion Matters

- Have we identified the topics that need attention?
- Will these action result in a better quality of life in your community?
- Have we missed a big idea or a small detail that matters to you?

Share your opinion:

- Stick a note on the boards,
- Speak with our planning team, and/or
- Complete our Exit Survey

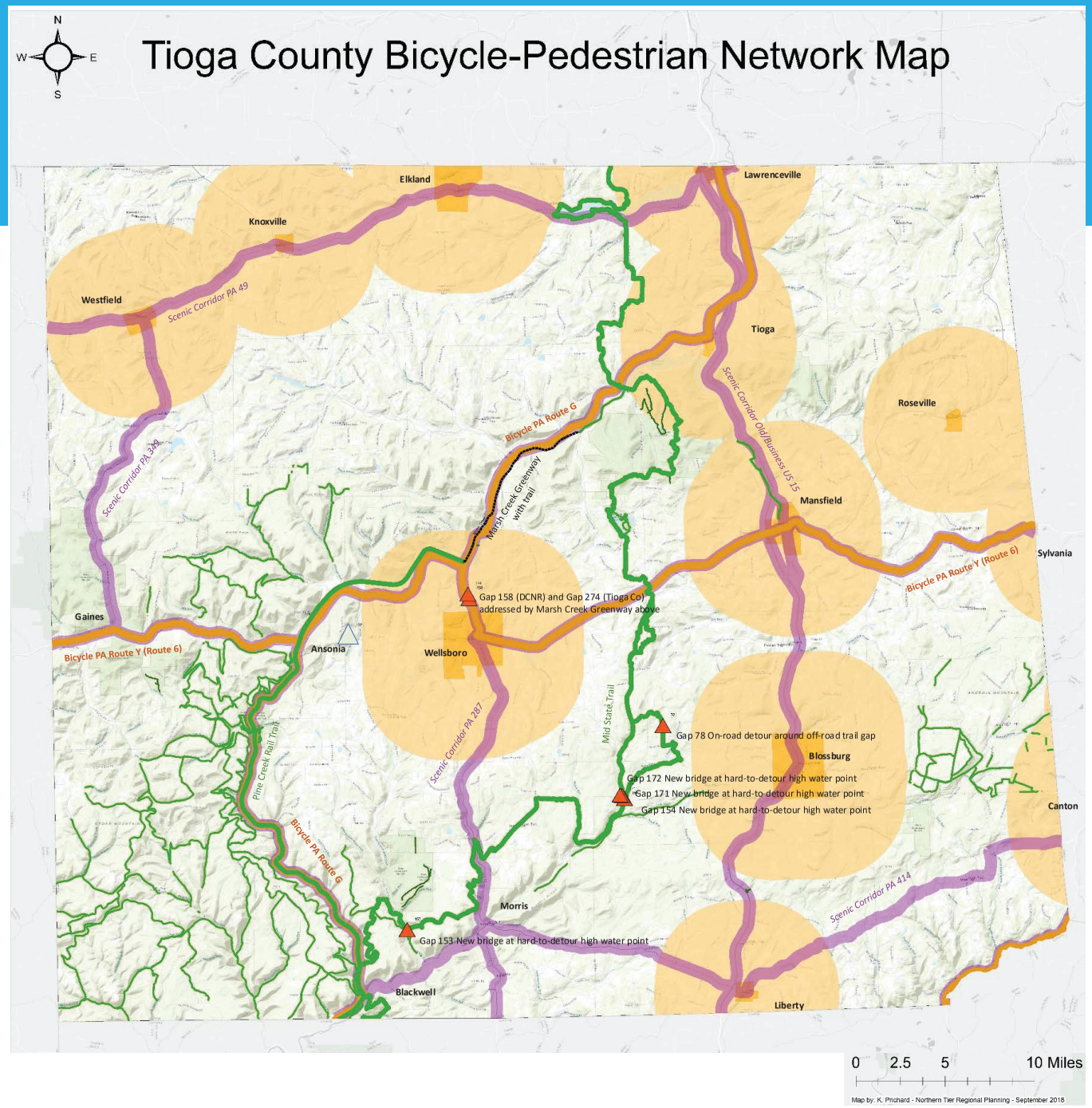
Bicycle & Pedestrian Travel

We Aspire to Have…

in Tioga County

Legend

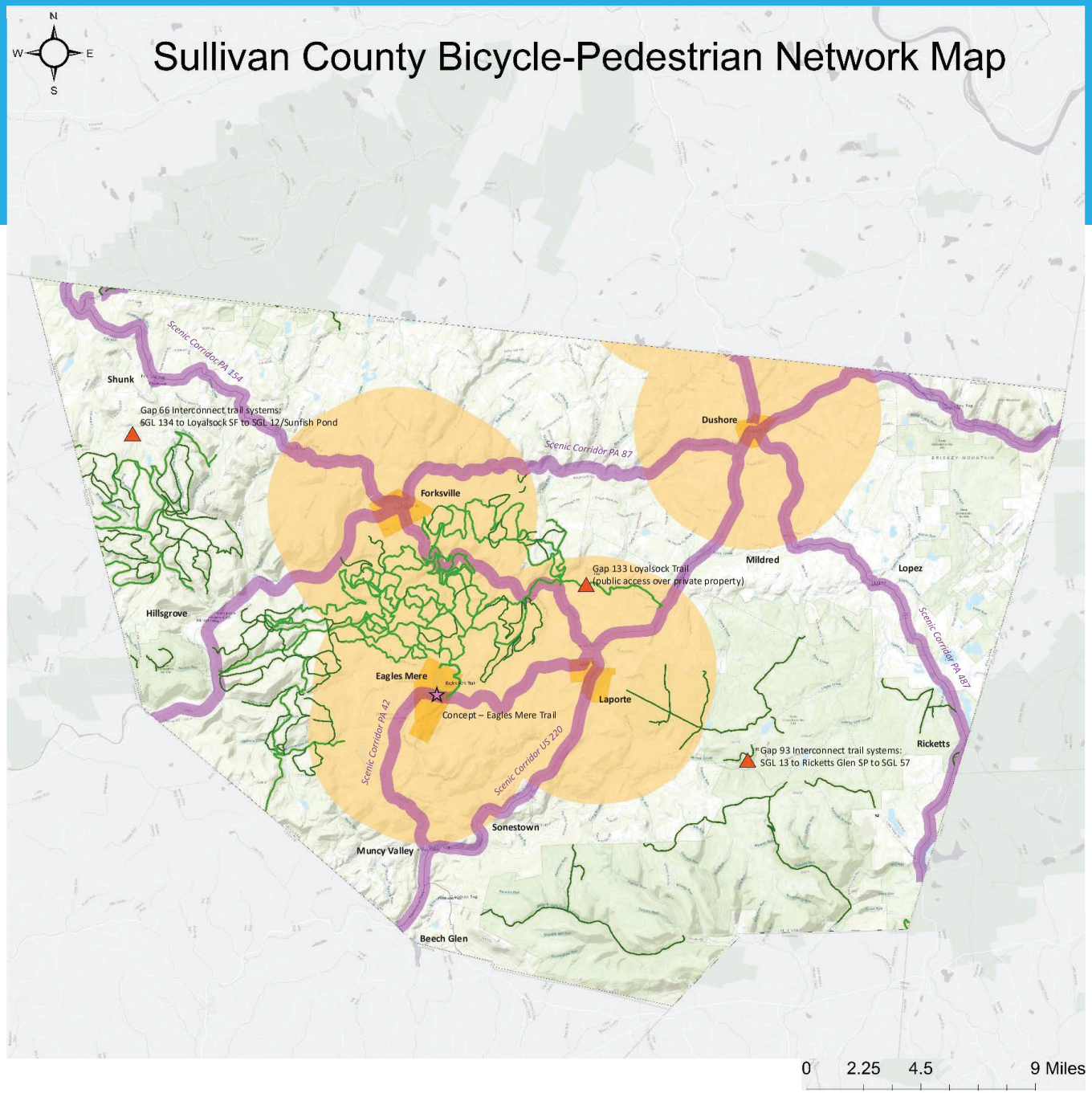
- Known Trail Gaps (DCNR)
- Proposed / Planned Trails (at various stages of development)
- Public Lands Trails
- Local and Regional Off-road Trails
- Major Off-road Trails
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems



Bicycle & Pedestrian Travel

We Aspire to Have…

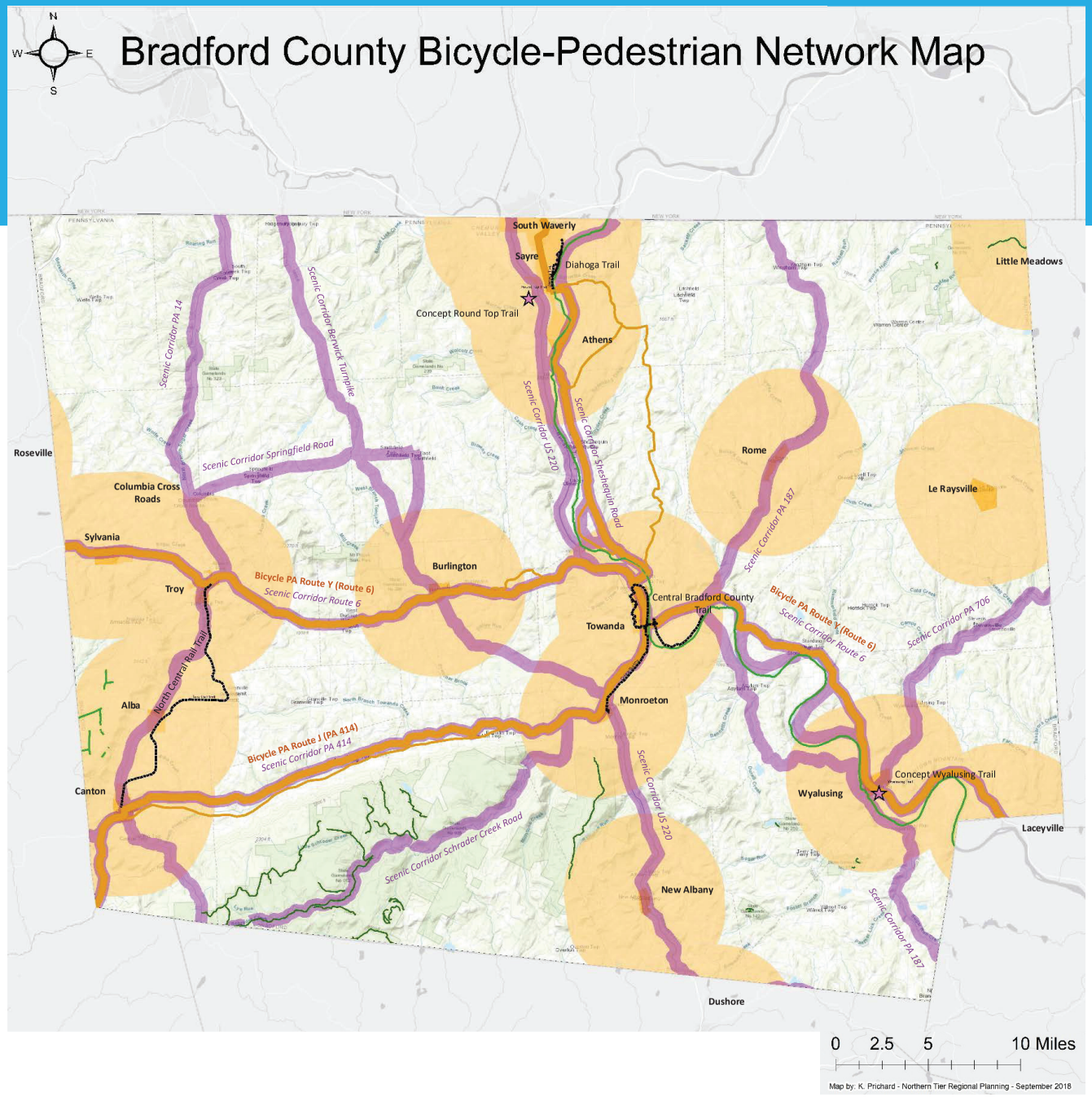
in Sullivan County



Bicycle & Pedestrian Travel

We Aspire to Have…

in Bradford County



Legend

- Trail Concepts
- Proposed / Planned Trails (at various stages of development)
- Major Off-road Trails
- Local and Regional Off-road Trails
- Public Lands Trails
- Local and Regional Bicycling Routes
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems

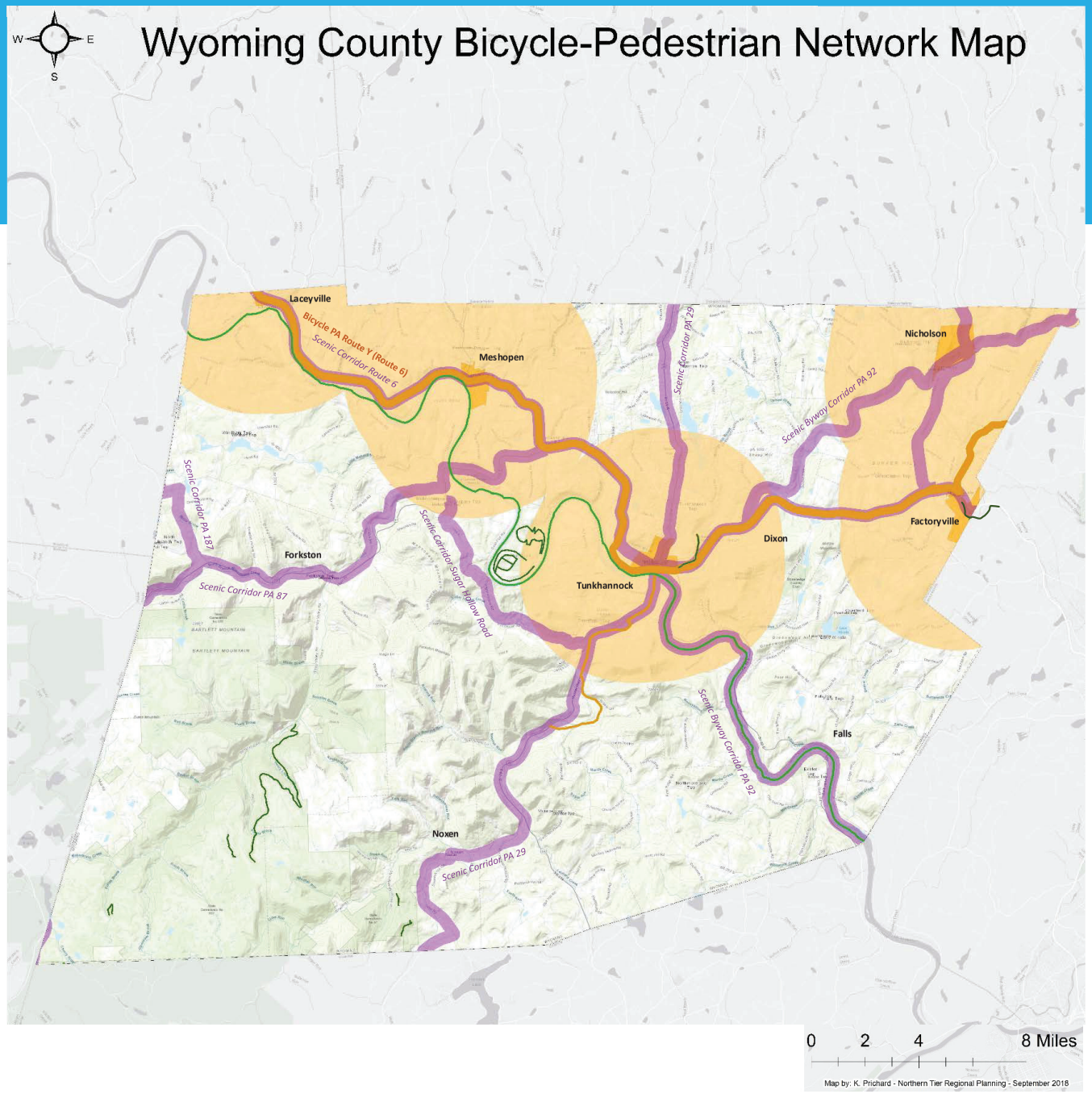
Bicycle & Pedestrian Travel

We Aspire to Have…

in Wyoming County

Legend

- Local and Regional Off-road Trails
- Public Lands Trails
- Local and Regional Bicycling Routes
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems



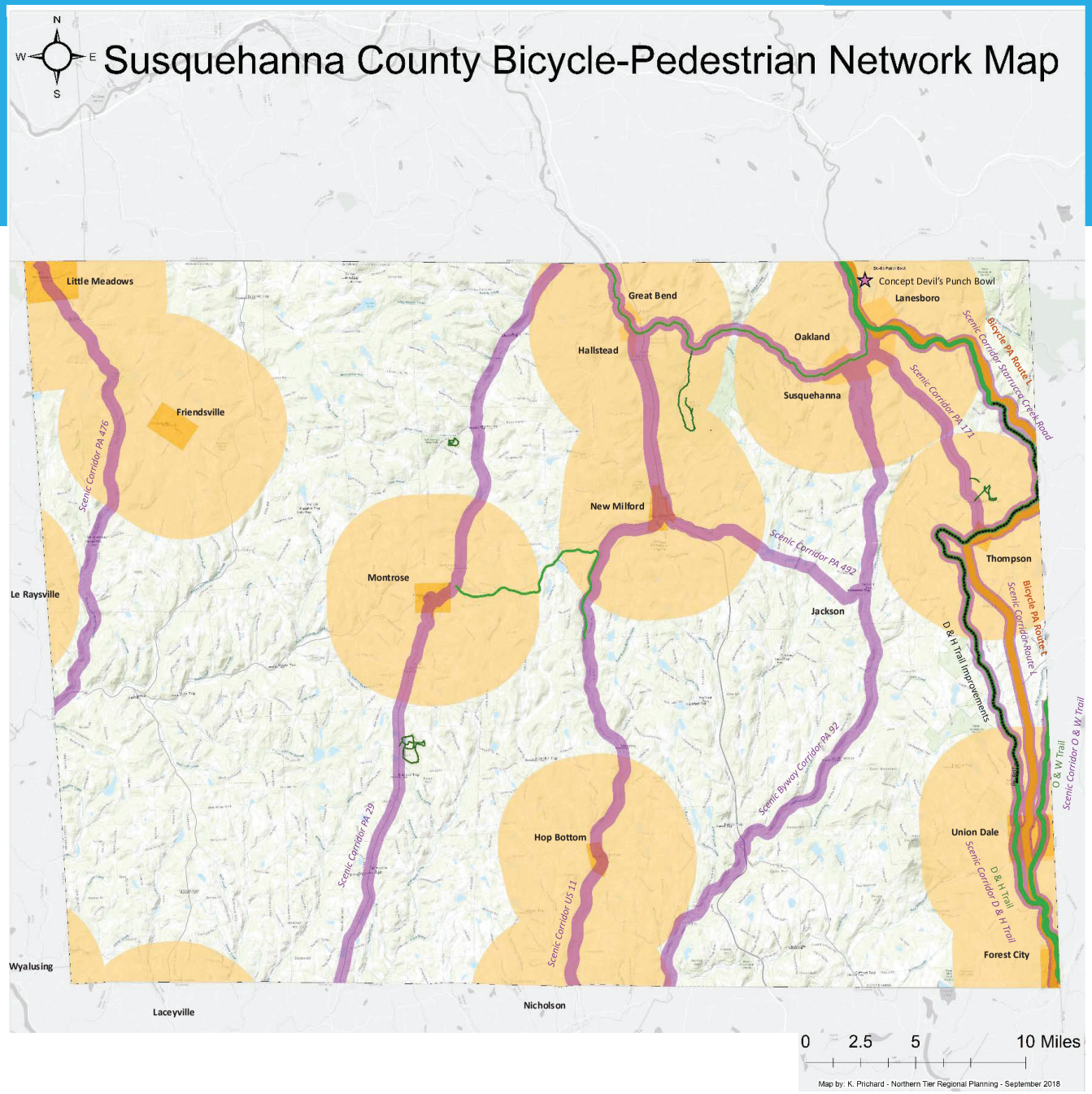
Bicycle & Pedestrian Travel

We Aspire to Have…

in Susquehanna County

Legend

- Trail Concepts
- Proposed / Planned Trails (at various stages of development)
- Local and Regional Off-road Trails
- Public Lands Trails
- Major Off-road Trails
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems



Bicycle & Pedestrian Travel

We Aspire to Have…

Connections enabling people to walk or bicycle to reach local, daily destinations and where they can walk or bicycle in the scenic Northern Tier landscape.

Priorities for Improvement	Recommendations
Bicycling	
• Raise awareness of safe places to bicycle. • Assess and improve roadways that bicyclists already use.	1. Promote on-road bicycling as a means of healthy, low cost-travel; share vision and plan for improving facilities and conditions. 2. Develop and implement detailed plans to improve the four Bicycle PA routes; assess scenic corridors as touring routes; improve as feasible. 3. Assess roads in towns and within ~3 miles for bicycle use and barriers to use and safety; improve as feasible or re-direct use to alternative location.
Sidewalks	
• Extend accessible (ADA) pedestrian networks throughout and to the edge of towns.	4. Evaluate sidewalk and crosswalk conditions and pedestrian use in towns and along roadways to the edge of town. 5. Develop sidewalk extension and infill projects; consider long-term maintenance.
Trails	
• Promote use of existing multi-use and pedestrian trails. • Support development of additional trails. • Increase capacity for trail development.	6. Centralize (or cross-reference) online trail promotion; count trail users. 7. Educate interested municipalities on the trail development process and on relevant PennDOT and other state programs. 8. Facilitate networking among localized trail development groups to share knowledge and experience.
Safety for all Travelers	
• Educate and alert all travelers to safe practices for shared-road travel.	9. Use/install signage, pavement markings, etc.; make public service announcements; work with local media to promote safe travel. 10. Promote new bicycling routes and multi-use trails with events.

Transit & Transportation Services

We Aspire to Have…

Affordable, efficient, reliable public transportation services throughout the region, including a fixed-route transit system (scheduled bus service for all types of passengers) that is visible and well-connected to bicycle and pedestrian systems in the core communities it serves.

Priorities for Improvement	Recommendations
Service Awareness & Traveler Information	
• A clear understanding—among riders, potential riders, and trip generators (e.g., employers, stores)—that public transportation services exist, and how to use services. • Centralized rider information to aid in selecting and scheduling transportation services.	1. Develop user-friendly transit materials. 2. Educate businesses, organizations, agencies, and other trip generators. 3. Develop and maintain a transportation services database; make it available as a one-stop online information source; hire a mobility manager to assist users.
Infrastructure & Amenities in Core Communities	
• Improved coordination on roadway maintenance schedules. • Accessible, marked transit stops and signed connections to bicycle and pedestrian networks. • Planning for transportation service access for new developments.	4. Work with PennDOT to optimize general and winter roadway maintenance for critical transportation services. 5. Install bus stop signage and shelters; evaluate sidewalks, curb cuts; connect transit to trails and bike paths; install wayfinding signage to/from transit. 6. Develop model policies/ordinances to ensure new development accommodates public transportation service access.
Service Analysis, Expansion & Coordination	
• Optimized cost efficiency; expanded service; connected with major destinations and transit systems within the Northern Tier and in adjacent regions.	7. Conduct studies and pilot service routes to improve efficiencies and expand services. 8. Partner to promote services, coordinate services, eliminate duplication of services and expand services for consumers. 9. Explore rider interest in non-traditional transportation services, e.g. vanpooling, carpooling, and transportation network companies.

JOBS & ECONOMY

We Aspire to Have…

A sustainable, diversified economy that weathers the ebbs and flows of the energy and resource extraction industries, and the downturn in the agricultural industry.

Priorities for Improvement	Recommendations
Broadband	
• Reliable and modern telecommunications and data infrastructure that helps to attract and retain businesses and new residents.	1. Develop a regional broadband inventory. 2. Develop feasibility studies. 3. Analyze white space radio wireless connection. 4. Expand broadband access.
Workforce	
• A skilled and qualified workforce that chooses to enter the region's labor market.	5. Understand local workforce needs. 6. Refresh and market technical training for local jobs. 7. Develop apprenticeships, internships, and job shadowing programs.
Tourism	
• A region that is widely recognized for its natural beauty with abundant and convenient opportunities for recreation.	8. Develop the regional trail network. 9. Identify and recruit businesses to serve tourists and active residents.
Community Revitalization	
• Desirable communities with recognized small town and rural quality of life that helps to retain existing residents and attract new ones.	10. Determine what young people desire in communities. 11. Improve walkability. 12. Recruit or expand businesses in redeveloped/rehabilitated buildings.

northern tier regional planning & development commission

Your Opinion Matters

- Have we identified the topics that need attention?
- Will these action result in a better quality of life in your community?
- Have we missed a big idea or a small detail that matters to you?

Send Comments by October 15

Public comments received by October 15 will be considered prior to the Commission's approval, which is scheduled for Friday, October 19.

Send comments to

Michelle Brummer, Project Manager

Gannett Fleming, Inc.

mbrummer@gfnet.com or 717-649-3165

Appendix E: Bradford County Summary

INVENTORY OF BICYCLE AND PEDESTRIAN FACILITIES

BicyclePA Routes

Two PennDOT-designated BicyclePA routes pass through Bradford County:

- **Bicycle Route J** is designated on PA Route 14 from the Lycoming County border to Canton, then on PA 414 to US 220 in Monroeton to Towanda, then on SR 1043 north to Athens and onto PA 199 to the New York border, approximately 49 miles.
- **Bicycle Route Y** travels in an east/west direction along U.S. Route 6 through the municipalities of Wyalusing, Towanda, Burlington, Troy and Sylvania, approximately 48 miles.

State Highways Known or Planned for Bicycle Use

The Bradford County Open Space, Greenways, and Recreation Plan (2006) presented on-road bike routes using the BicyclePA Routes as spines for local loops and routes. These planned routes were informed by public participation and used both state and local roadways. By designating them as on-road bike routes, the county intended to work with NTRPO and PennDOT to assess and improve these corridors for safe bicycle touring. Only state roads are listed in the table below.

Route	Classification	Source
US 6	Principal arterial	PennDOT BicyclePA Route Y
PA 14	Minor arterial	PennDOT BicyclePA Route J
US 220, Monroeton to Towanda	Minor arterial	
PA 414	Major collector	
SR 1034, SR 1060	Major collector	
PA 199	Minor arterial	
PA 187	Minor arterial	County Open Space, Greenways and Recreation Plan, 2006
PA 706	Minor arterial	
SR 1038	Major collector	
SR 1049	Major collector	
SR 3009 to Franklindale Road	Major collector	
SR 4013	Major collector	

Off-Road Trails

There are no major off-road land trails and one community trail in Bradford County.

The one-mile paved **Towanda Riverwalk** begins at the Bradford County Veterans Memorial Park and runs southward along Merrill Parkway then transitions to residential sidewalks. Its low-

grade alignment welcomes everyone from infants in strollers to young children to older visitors and even those with disabilities. Bicycles are not allowed on the riverwalk.

The **Susquehanna River Water Trail – North Branch** runs from the New York State border to the Wyoming County border, approximately 50 miles. Though not a major mode of transportation, the water trail is promoted heavily as a nature-based tourism asset.

Public Lands Trails

State park and state forest trails are destination trails for park visitors and can function as segments of larger trail systems.

- Mount Pisgah State Park – 11 miles of trails
- Loyalsock State Forest – nearly 200 miles of marked and unmarked trails

Known Trail Gaps

The PA DCNR statewide dataset of known trail gaps[3] lists no land trail gaps in Bradford County.

Planned Off-Road Trails

A group of Canton-area residents is interested in developing a **Northern Central Rail Trail** along the former Williamsport-Elmira line. According to http://www.abandonedrails.com, this branch of the Pennsylvania Railroad was operated by Penn Central and likely abandoned around 1972 after Hurricane Agnes. The group is currently raising funds and seeking the support of elected officials to pursue a trail feasibility study.

The central **Bradford County Trail** would connect the Towanda Riverwalk with a loop through Towanda Borough, and spur trails into Wysox and Monroeton. A feasibility study focused on the physical potential of trail development was recently completed.

The **Diahoga Trail** is an emerging multi-municipal trail along the Susquehanna River in Sayre and Athens, Bradford County. Overall, the trail is intended to connect the two downtowns, three river access points, and various recreation sites, including the Carantouan Greenway, and to create more opportunities to view the river. Futurescapes, a local nonprofit, has spearheaded this effort and brought together Sayre Borough, Athens Borough, and the Valley Joint Sewer Authority to plan and construct the trail.

Phase 1 connected Satterlee Street in Athens to Riverfront Park in Sayre in 2018. In 2019, Phase 2 will connect Riverfront Park to the intersection of East Hayden Street and South Higgins Avenue Valley at the Borough's levee system and will include connections to Riverfront Park Road on the south and north ends of the baseball fields. Sayre Borough was recently awarded a state multimodal transportation grant from the Commonwealth Financing Authority.

[3] These gaps include snowmobile trail gaps which are not part of the Bicycle and Pedestrian Plan.

Additional phases are envisioned to extend the trail south to the Front Street bridge and north to North Thompson Street at Cayuta Creek.

Other trail concepts in the Northern Tier region include the following; no detailed or official status was available at the time of this report:

- Wyalusing River Trail in Bradford County
- Wyalusing Creek Water Trail in Bradford and Susquehanna counties

BICYCLE AND PEDESTRIAN USERS

An online public survey to gather information about bicycle and pedestrian use in the Northern Tier planning region generated 46 responses from Bradford County residents.

The most frequently mentioned "favorite places or routes to walk or bike" included:

- Rural / local roads for their convenience, low traffic, scenery, and perceived safety.
- Park trails, including the Towanda Riverwalk, and rail-trails for scenery, convenience, and perceived safety.
- In-town on sidewalks where available for their safety, scenery, convenience, and social environment.

When asked about unsafe places where people regularly walk or bike, respondents again listed town and rural locations. The most common safety issues identified were poor-quality or non-existent sidewalks, minimal road shoulder or berm, and poor driver behavior or traffic law compliance (e.g., speeding).

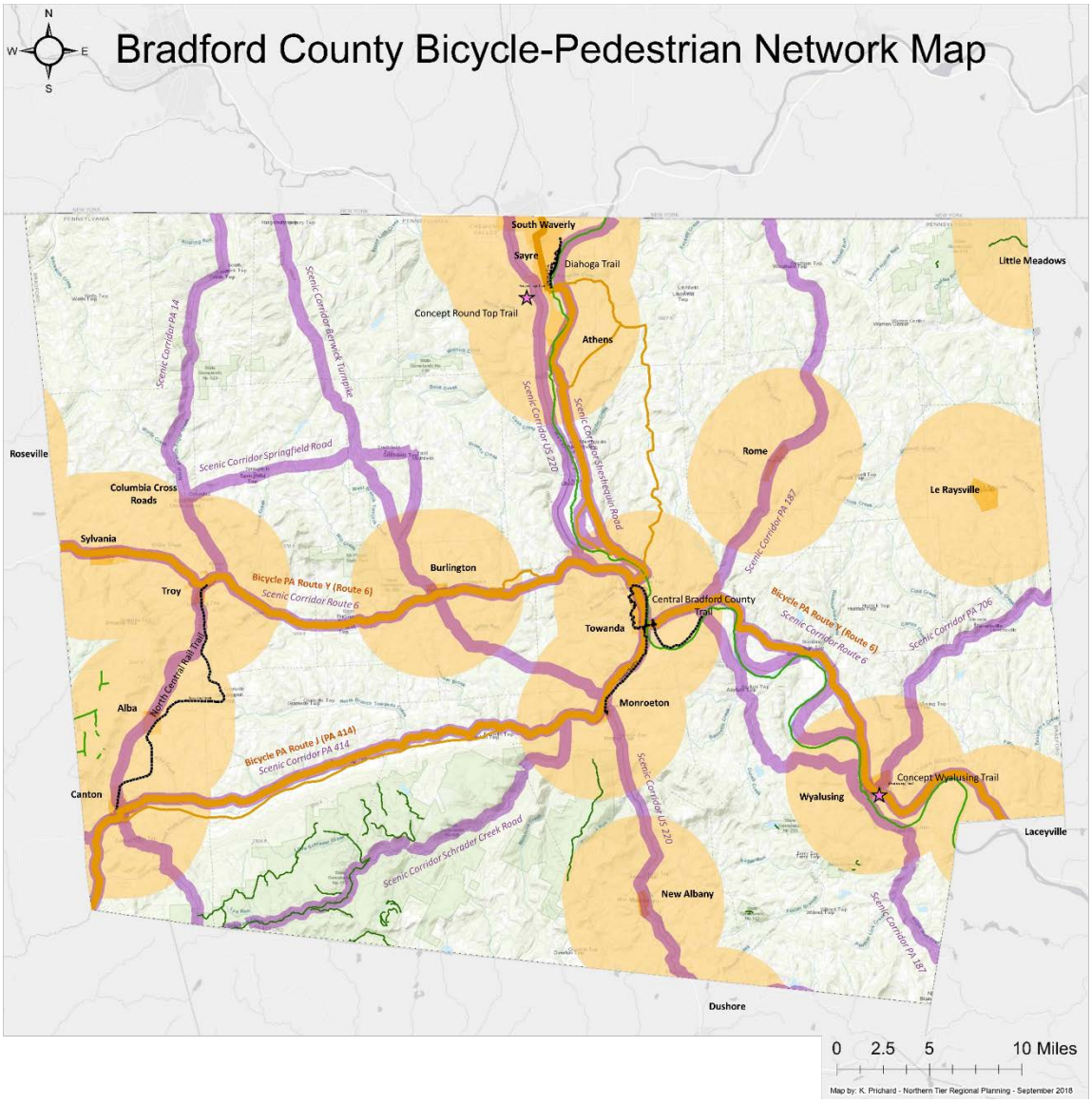
Respondents suggested the following paired destinations that they would like to see connected with bike-friendly and walk-friendly routes.

- Golden Mile, Wysox
- Towanda to Monroeton to Canton
- Canton to Troy to Columbia Cross Roads
- Sayre Riverfront Park to Satterlee Creek Environmental Center
- Elmira Street, Lockhart Street, Pennsylvania Avenue
- Lehigh Avenue in Sayre to River Street in Athens
- Milan to Athens; Milan to Ulster

SAFETY PERFORMANCE

According to the Pennsylvania Crash Information Tool, Bradford County had 73 pedestrian crashes and 23 bicycle crashes over the past decade (2007-2016). Six pedestrian fatalities and one bicycle fatality were reported. There was no significant concentration of crash locations.

MAP OF EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES



Legend

- Trail Concepts
- Proposed / Planned Trails (at various stages of development)
- Major Off-road Trails
- Local and Regional Off-road Trails
- Public Lands Trails
- Local and Regional Bicycling Routes
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems

PLAN PRIORITIES

Improve Conditions along State Highways Known for Bicycle Use

A community or county request for shoulder improvement (width), bridge with shoulder, or other condition could be coordinated with a highway resurfacing project via PennDOT Connects, PennDOT's initiative to strengthen the coordination between state and local planning. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Specifically, PennDOT completed a PA Route 6 Bicycle Master Plan Design Guide for the western section of Route 6 to address bicycle safety, accessibility, and connectivity along PA Route 6. In addition, the design guide discusses opportunities to improve bicycling conditions to benefit tourism and local quality of life. Such planning would benefit the eastern part of the state, including Bradford County.

Review Bicycle Use within Priority Areas for Local On-road Bicycle Facilities

A review of user-generated bicycle routes in Bradford County, from online sources such as www.strava.com and www.gpsmyride.com, showed that most user routes are located within three miles of community centers. These users may be local residents or visitors to the area; both have valuable perspectives on the need, type, and priority for improvement. From this analysis, the planning team recommends that upcoming state highway improvement projects within three miles of a community center include a review of online sources (as available via public access or free account) and outreach to users in the project area.

Extend and Develop Trails to Interconnect Communities

The Bradford County Trail and the Diahoga Trail are Bradford County's priority bicycle and pedestrian projects.

Audit Communities with Sidewalk Systems

NTRPDC has identified 12 communities with sidewalk systems or the potential for high pedestrian activity in Bradford County:

- Alba
- Athens-Sayre-South Waverly
- Burlington
- Canton
- LeRaysville
- Monroeton
- New Albany
- Rome
- Sylvania
- Towanda
- Troy
- Wyalusing

Pedestrian or walkability audits can help these communities identify safety hazards or obstacles to daily walking routes. Documented needs can then be considered when developing state and local improvement projects. Improvements or enhancements to these pedestrian systems (or

the installation of pedestrian systems where they do not currently exist) along state highways may be coordinated with future highway projects. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Appendix F: Sullivan County Summary

INVENTORY OF BICYCLE AND PEDESTRIAN FACILITIES

BicyclePA Routes

There are no PennDOT-designated BicyclePA routes that pass through Sullivan County.

Shoulder Conditions along State Highways Known for Bicycle Use

The Northern Tier Greenways Plan (2010) analyzed select state roadways for traffic volume, speed limit, and shoulder width as indicators of bicycle-friendliness and recommended shoulder widths ranging from 4 feet to 8 feet. These roadways and their plan-recommended shoulder widths in Sullivan County included:

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
PA 42	Major collector	1-3 ft	4 ft	• #99447 Resurfacing from Eagles Mere to Laporte Borough; 4.99 miles; 2020-2022
PA 87	Minor arterial	2-4 ft west of Hillsgrove; 4-6 ft from Hillsgrove to SR 4017; 2-6 ft east of SR 4017	4 ft	• #99108 from Splash Dam Rd to Scar Run; 2.08 miles; 2021 • 99110 from Loyalsock Creek to Splash Dam Road; 1.86 miles; 2021 • #78938 Bridge rehabilitation; 2020-2022 • #7006 Bridge rehabilitation; 2020-2022 • #7007 Bridge rehabilitation; 2020-2022 • #110166 Bridge rehabilitation; 2022
PA 154	Major collector	0-1 ft	4 ft	• #99382 Resurfacing from Shanerburg Road to SR 3009 (Double Run Road); 3.81 miles; 2022 • #101276 Resurfacing from State Route 154 from US 220 to Shanerburg Road; 3.11 miles; 2019-2020 • #6963 Bridge replacement; 2019-2020

US 220	Minor arterial	8-10 ft south of Laporte; 4-6 ft north of Laporte	6 ft	• #99423 Resurfacing from Old Route 220 to 0.25 miles South of PA 42; 2.51 miles; 2019-2022 • #7030 Resurfacing from Lycoming County Line to Sonestown; 4.2 miles; 2019, 2022 • #93017 Reconstruction from Dushore to Bradford County; 2.52 miles; 2019, 2020-2022
PA 487	Major collector	0-2 ft	4 ft	• #90005 Bridge replacement; 2019, 2021-2022
SR 3009	Major collector	0 ft	14 ft lane	• No programmed projects

Off-Road Trails

There are two off-road trails in Sullivan County.

The **Loyalsock Trail,** a 60-mile trail within the Loyalsock State Forest in Lycoming and Sullivan counties used for hiking and cross-country skiing.

The **Conservancy Narrow Gauge Rail Trail** in Eagles Mere, a scenic woodland trail around the east side of Eagles Mere Lake.

Public Lands Trails

State park and state forest trails are destination trails for park visitors and can function as segments of larger trail systems. These public land trails in Sullivan County include:

- Ricketts Glen State Park with 26 miles of trails.
- Worlds End State Park with 20 miles of trails plus a segment of the Loyalsock Trail.
- Loyalsock State Forest with nearly 200 miles of marked and unmarked trails.

Known Trail Gaps

The PA DCNR statewide dataset of known trail gaps[4] lists two gaps in Sullivan County.

- #66, a gap in the Loyalsock State Forest Trail that would connect Loyalsock forestry trails in the Cabbage Hollow area to SGL 12 trails near Sunfish Pond in southern Bradford County. The gap was identified by the Highland Lake Snowmobile and Outdoor Recreation Club, though a trail connection could be designed for multiuse and used by hikers and bikers in the warm seasons.

[4] These gaps include snowmobile trail gaps which are not part of the Bicycle and Pedestrian Plan.

- #133, a gap in the Loyalsock Trail north of Laporte identified by the PA DCNR Bureau of Forestry.

Planned Off-Road Trails

A second **Endless Mountains Trail** (EMT) is proposed to connect the east end of the Loyalsock Trail (and Worlds End State Park) to Ricketts Glen State Park, primarily through State Game Lands 13. A feasibility study is underway, according to Jeff Mitchell, the blogger at https://endlessmountains.wordpress.com/endless-mountains-trail/.

BICYCLE AND PEDESTRIAN USERS

An online public survey to gather information about bicycle and pedestrian use in the Northern Tier planning region generated six responses from Sullivan County residents.

The most frequently mentioned “favorite places or routes to walk or bike” included:

- Around town and around Eagles Mere
- On state and local roads, “even though dangerous”

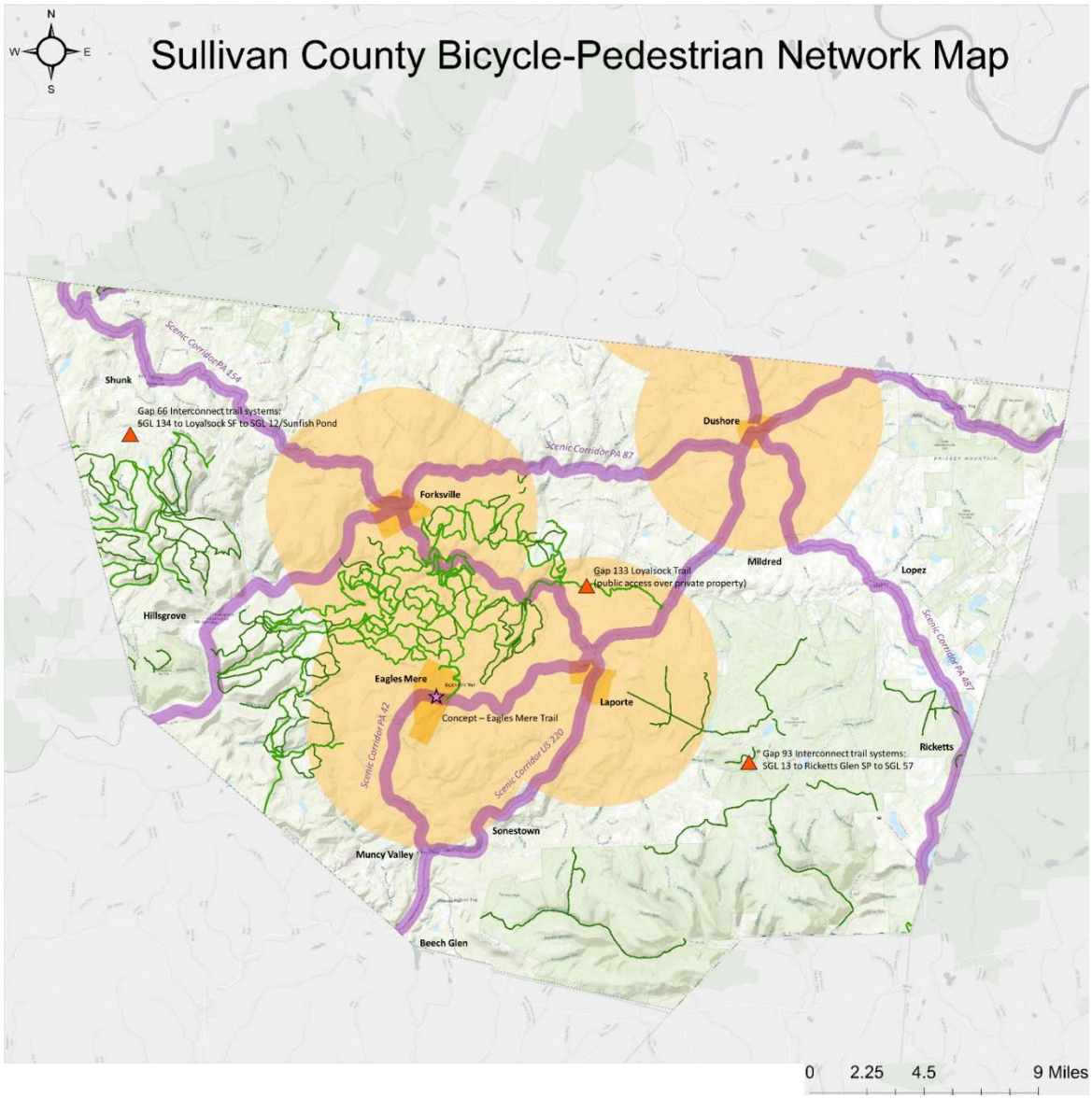
Respondents suggested the followed paired destinations that they would like to see connected with bike-friendly and walk-friendly routes.

- Route 220 south of Laporte to Muncy Street into Laporte

SAFETY PERFORMANCE

Sullivan County had seven pedestrian crashes and one bicycle crash over the past decade (2007-2016). From these, one pedestrian fatality just south of Dunsmore resulted.

MAP OF EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES



Legend

- Known Trail Gaps (DCNR)
- Trail Concepts
- Public Lands Trails
- Local and Regional Off-road Trails
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems

PLAN PRIORITIES

Improve Conditions along State Highways Known for Bicycle Use

A community or county request for shoulder improvement (width), bridge with shoulder, or other condition could be coordinated with a highway resurfacing project via PennDOT Connects, PennDOT's initiative to strengthen the coordination of state and local planning. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Review Bicycle Use within Priority Areas for Local On-Road Bicycle Facilities

A review of user-generated bicycle routes in the region, from online sources such as www.strava.com and www.gpsmyride.com, showed that most user routes are located within three miles of community centers. These users may be local residents or visitors to the area; both have valuable perspectives on the need, type, and priority for improvement. From this analysis, the planning team recommends that upcoming state highway improvement projects within three miles of a community center include a review of online sources (as available via public access or free account) and outreach to users in the project area.

Extend and Develop Trails to Interconnect Communities

Based on the outcome of the feasibility study, the Endless Mountains Trail from Loyalsock Trail (and Worlds End State Park) to Ricketts Glen State Park may become Sullivan County's priority trail project.

Audit Communities with Sidewalk Systems or the Potential for High Pedestrian Activity

Northern Tier has identified four communities with sidewalk systems or the potential for high pedestrian activity in Sullivan County:

- Dushore
- Eagles Mere
- Forksville
- Laporte

Pedestrian or walkability audits can help these communities identify safety hazards or obstacles to daily walking routes. Documented needs can then be considered when developing state and local improvement projects. Improvements or enhancements to these pedestrian systems (or the installation of pedestrian systems where they do not currently exist) along state highways may be coordinated with future highway projects. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Appendix G: Susquehanna County Summary

INVENTORY OF BICYCLE AND PEDESTRIAN FACILITIES

BicyclePA Routes

There is one PennDOT-designated BicyclePA route through Susquehanna County:

- **BicyclePA Route L** runs generally north/south from Binghamton, New York, to Wilmington, Delaware. The stretch in the Northern Tier runs along the eastern edge of Susquehanna County for approximately 32 miles. From the south, Route L begins on PA Route 171 in Forest City and continues through Union Dale and Thompson. Route L then follows SR 4030, crossing into Wayne County briefly. It continues in Susquehanna County on SR 1009 through Lanesboro near the New York State border. Approximately 13 percent of the 225 miles of Route L in Pennsylvania are in the Northern Tier region.

Shoulder Conditions along State Highways Known for Bicycle Use

The Northern Tier Greenways Plan (2010) analyzed select state roadways for traffic volume, speed limit, and shoulder width as indicators of bicycle-friendliness and recommended shoulder widths ranging from 4 feet to 8 feet. These roadways and their plan-recommended shoulder widths in Susquehanna County included:

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
US 11	Major collector	0 ft south of Kingsley; 4 ft north of Kingsley	4 ft south of New Milford; 6 ft north of New Milford	• #94737 Shoulder Widening and Edgeline Rumble Strips; 3.1 miles; 2019-2020 • #94740 Shoulder Widening and Edgeline Rumble Strips; 2.59 miles; 2019-2022 • #94741 Shoulder Widening and Edgeline Rumble Strips; 3.11 miles; 2019 • #9699 Bridge replacement; 2020 • #96728 Bridge replacement; 2022 • #67550 Bridge replacement; 2021
PA 29	Minor arterial/ Major collector	0-2 ft	6 ft	• #9698 Bridge replacement; 2021 • #9698 Bridge rehabilitation/replacement; 2020

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
PA 92	Major collector/ Minor collector	0 ft	4 ft	• #85729 Bridge replacement; 2021 • #9704 Bridge replacement; 2022
PA 167	Minor collector/ Major collector	0 ft	4 ft	• No programmed projects
PA 171 / portions of Bicycle PA Route L	Minor arterial	0-2 ft	4 ft	• #101932 Resurfacing select segments; 16.52 miles; 2022
PA 492	Major collector	0 ft	4 ft	• #9723 Bridge replacement; 2020
PA 706	Minor arterial	0-1 ft	4 ft west of Montrose; 6 ft east of Montrose	• #9745 Intersection improvement, bridge replacements; 0.77 miles; 2019-2020 • #9720 Bridge replacement; 2020 • #109880 Bridge replacement; 2020 • #67525 Bridge replacement; 2021
PA 858	Minor collector	0 ft	4 ft	• #96731 Bridge replacement; 2021
SR 1009 / portions of Bicycle PA Route L	Major collector	0 ft	14 ft lane	• #85730 Bridge replacement; 2021

Off-Road Trails

Off-road trails in Susquehanna County include:

The **Endless Mountain Trail,** one of the first trails in the nation. Located in Susquehanna County, its 9.2-mile route begins just east of Montrose and extends to the Lackawanna & Western Railroad corridor. The Rail-Trail Council is currently attempting to negotiate easements along the corridor to extend the trail.

The Delaware and Hudson Rail Trail or **D&H Rail Trail,** from Forest City to Lanesboro. Ten miles have been improved with a stone dust surface suitable for hybrid and mountain bikes. The improved section runs along the Upper Lackawanna River from Vandling to Herrick Center. It is also used by equestrians, runners, and hikers. Other sections of the D&H are graded original railbed surface usable by mountain bikers and hikers. About 87 percent of the total trail miles (38) travel through the Northern Tier region. The D&H Rail Trail runs from Simpson in Lackawanna County to the New York State border.

The Ontario & Western Rail Trail or **O&W Rail Trail,** from Forest City to Hancock, New York. The O&W passes through Forest City, Union Dale, and Herrick Center before continuing northeast through Wayne County. The O&W is original railbed surface, graded, but rough in areas, more suitable for mountain bikes. Using both rail-trails, various loop trips are possible. About 25 percent of the trail's 32 miles are in the Northern Tier region.

The **Susquehanna River Water Trail – North Branch** is a 185-mile route from the New York State border to Sunbury, where it joins the West Branch and forms the river's main stem. The water trail dips into Susquehanna County and then turns back into New York before heading south through Bradford and Wyoming counties. The portion through Susquehanna County is approximately 15 miles. Though not a major mode of transportation, the water trail is promoted heavily among the region's nature-based tourism assets.

Public Lands Trails

State park trails are destination trails for park visitors and can function as segments of larger trail systems. These state park trails are in Susquehanna County:

- Salt Springs State Park has almost 15 miles of trails.
- Pinchot State Forest across Susquehanna, Wyoming, Lackawanna, Luzerne, and Wayne counties has one named trail—the 26-mile Pinchot Trail—in Lackawanna County.

Known Trail Gaps

The PA DCNR statewide dataset of known trail gaps[5] lists no trail gaps in Susquehanna County.

Planned Off-Road Trails

The only trail concepts in Susquehanna County are the following; however, no documented status for either were available at the time of this report:

- Susquehanna Depot Trail in Susquehanna County
- Wyalusing Creek Water Trail in Bradford and Susquehanna counties

[5] These gaps include snowmobile trail gaps which are not part of the Bicycle and Pedestrian Plan.

BICYCLE AND PEDESTRIAN USERS

An online public survey to gather information about bicycle and pedestrian use in the Northern Tier planning region generated 21 responses from Susquehanna County residents.

The most frequently mentioned “favorite places or routes to walk or bike” included:

- Rural / local roads for their convenience, low traffic, scenery, and perceived safety.
- Rail trails for their scenery, convenience, perceived safety, no cars, easy riding, and quiet environments.
- In-town for their convenience.

When asked about unsafe places where people regularly walk or bike, the most common safety issues identified were poor-quality or non-existent sidewalks, potholes, poor shoulder conditions (e.g., cracked pavement, debris, etc.), and poor driver behavior or traffic law compliance (e.g., speeding).

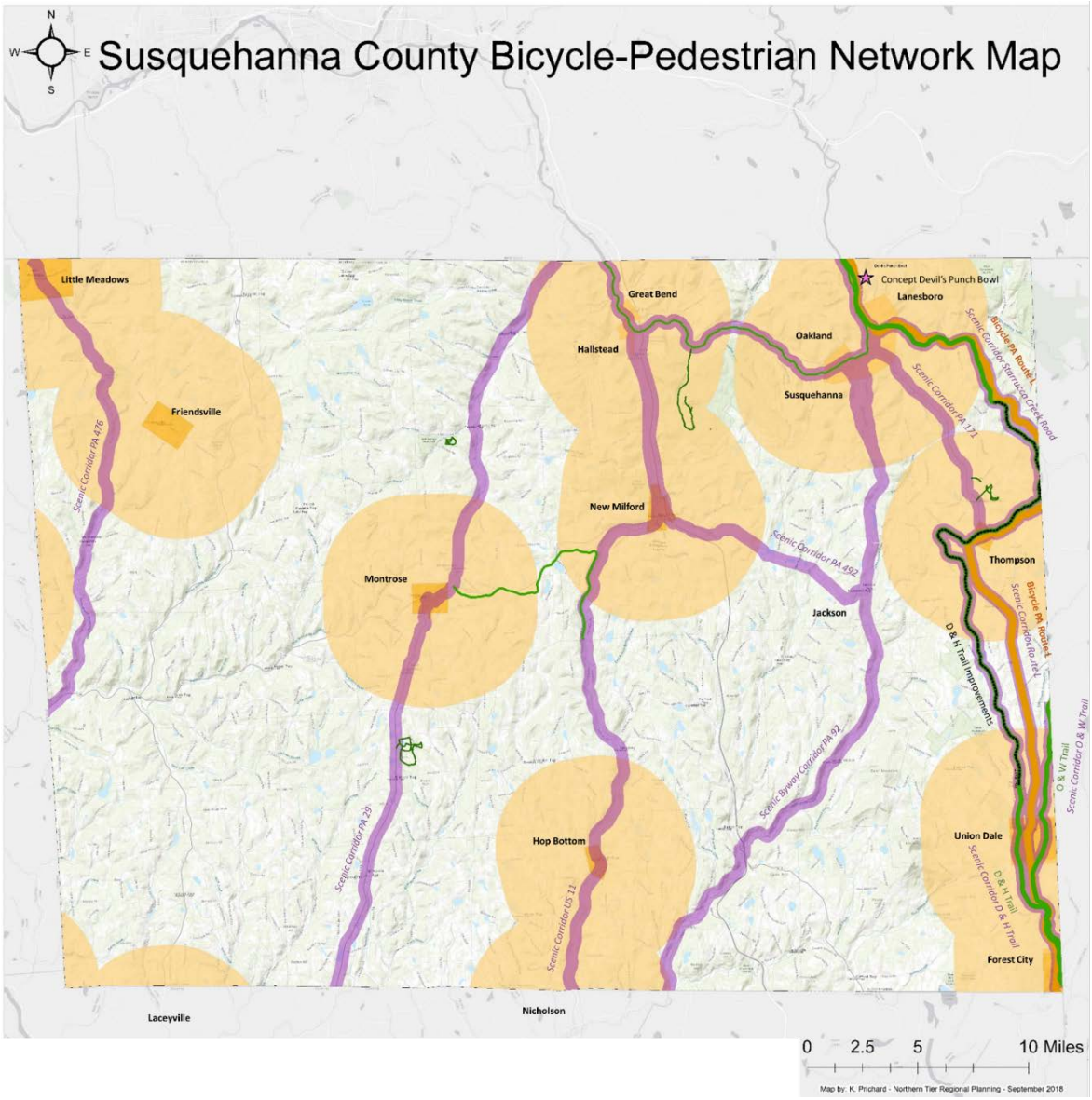
Respondents suggested the followed paired destinations that they would like to see connected with bike-friendly and walk-friendly routes.

- Tunkhannock to Montrose
- Tunkhannock to Nicholson
- Rt 247, along Crystal Lake and Lyons Street to Elk Mountain, as well as the roads around Elk
- Uniondale to the New York State border; Uniondale to Wilkes-Barre
- SR 92 Viaduct Scenic Byway, Lanesboro to Nicholson
- Pittston and Tunkhannock along the river
- Nicholson to Trolley Trail
- Lehigh Gorge rail trail to NEPA Rail Trail
- Carbondale to Simpson
- Elk Mt. Ski Area and the Rail Trail Office in Union Dale

SAFETY PERFORMANCE

Susquehanna County had 35 pedestrian crashes and 5 bicycle crashes over the past decade (2007–2016). During this period, there were four pedestrian fatalities. There was no significant concentration of crash or fatality locations.

MAP OF EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES



Legend

- Trail Concepts
- Proposed / Planned Trails (at various stages of development)
- Local and Regional Off-road Trails
- Public Lands Trails
- Major Off-road Trails
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems

PLAN PRIORITIES

Improve Conditions along State Highways Known for Bicycle Use

A community or county request for shoulder improvement (width), bridge with shoulder, or other condition could be coordinated with a highway resurfacing project via PennDOT Connects, PennDOT's initiative to strengthen the coordination of state and local planning. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 4-0.

Review Bicycle Use within Priority Areas for Local On-Road Bicycle Facilities

A review of user-generated bicycle routes in Susquehanna County, from online sources such as www.strava.com and www.gpsmyride.com, showed that most user routes are located within three miles of community centers. These users may be local residents or visitors to the area; both have valuable perspectives on the need, type, and priority for improvement. From this analysis, the planning team recommends that upcoming state highway improvement projects within three miles of a community center include a review of online sources (as available via public access or free account) and outreach to users in the project area.

Audit Communities with Sidewalk Systems

Northern Tier has identified 12 communities with sidewalk systems or the potential for high pedestrian activity in Susquehanna County:

- Friendsville
- Forest City
- Great Bend
- Hallstead
- Little Meadows
- Montrose
- New Milford
- Hop Bottom
- Oakland
- Susquehanna
- Thompson
- Union Dale

Pedestrian or walkability audits can help these communities identify safety hazards or obstacles to daily walking routes. Documented needs can then be considered when developing state and local improvement projects. Improvements or enhancements to these pedestrian systems (or the installation of pedestrian systems where they do not currently exist) along state highways may be coordinated with future highway projects. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 4-0.

Appendix H: Tioga County Summary

INVENTORY OF BICYCLE AND PEDESTRIAN FACILITIES

BicyclePA Routes

Three PennDOT-designated "BicyclePA" routes pass through Tioga County:

- **Bicycle Route G** traverses Tioga County in a north/south direction on PA Route 414 following the Pine Creek Rail Trail through the southwestern portion of Tioga County before joining Bicycle Route Y on U.S. Route 6, then connecting to PA Route 287 through Tioga and ending in Lawrenceville (approximately 50 miles).
- **Bicycle Route J** runs through southeastern Tioga County for approximately 6 miles on PA Route 14 between Lycoming County and Bradford County.
- **Bicycle Route Y** runs east/west along U.S. Route 6; approximately 35 miles of Route Y are in Tioga County.

Shoulder Conditions along State Highways Known for Bicycle Use

The Northern Tier Greenways Plan (2010) analyzed select state roadways for traffic volume, speed limit, and shoulder width as indicators of bicycle-friendliness and recommended shoulder widths ranging from 4 feet to 8 feet. These roadways and their plan-recommended shoulder widths in Tioga County included:

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
US 6 / Bicycle PA Route Y	Principal arterial	8-10 ft west of Wellsboro; 4-6 ft east of Wellsboro	8 ft	• #97673 Bridge replacement; 2019, 2019-2022 • #97674 Bridge replacement; 2019, 2021-2022 • #97669 Bridge rehabilitation; 2019-2020 • #99387 Resurfacing from Dantz Run to PA 287; 5.07 miles; 2019, 2021-2022 • #7248 Bridge replacement; 2019-2021 • #102014 Bridge rehabilitation; 2019-2020 • #101292 Intersection realignment; 2019-2021

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
				• #99107 Bridge replacement; 2019-2022 • #97669 Bridge rehabilitation; 2019-2020 • #99424 Resurfacing from Sassafras Street to Swan Street; 0.31 miles; 2019-2020, 2022 • #99426 Resurfacing from Swan Street to Strange Road; 5.14 miles; 2020-2022
PA 14	Minor arterial	2-4 ft	6 ft	• No programmed projects
US 15	Principal arterial	8-10 ft	8 ft	• #110158 2 bridge improvements; 2019-2021 • #101335 Highway restoration; 14.06 miles; 2021-2022
PA 49	Minor arterial	8-10 ft between Lawrenceville and Elkland; 2-4 ft west of Osceola	6 ft	• #99168 Resurfacing from Taft Avenue to 0.5 miles West of Barney Hill Road; 2.46 miles; 2021-2022
PA 287, portions of Bicycle PA Route G	Minor arterial	6-8 ft south of Tioga; 4-6 ft north of Wellsboro; 3-6 ft south of Wellsboro	6 ft	• #99170 Resurfacing from US 15 to Mitchell Creek Road; 0.43 miles; 2021-2022
PA 328	Minor arterial	1-2 ft.	4 ft	• No programmed projects
PA 349	Major collector	0 ft north of Sabinsville; 6-8 ft south of Sabinsville	4 ft	• #99171 Reconstruction from Ladd Road to PA 49; 1.17 miles; 2019, 2021-2022
PA 414, west of Morris	Major collector	No shoulder	4 ft	• No programmed projects
PA 414, Morris to Liberty	Minor arterial	4-6 ft	4 ft	• #99173 Reconstruction from US 15 to State Route 2005 (Water Street); 0.74 miles; 2020-2022 • #106235 Bridge replacement; 2021

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
PA 414, east of Liberty	Major collector	1-2 ft	4 ft	• No programmed projects
PA 660	Major collector	No shoulder	4 ft	• No programmed projects

Off-Road Trails

Off-road trails in Tioga County include the following:

Mid State Trail is a 310-mile hiking trail from Maryland to the New York State border, passing through Tioga County.

West Rim Trail is a 30-mile trail along the western rim of Pennsylvania's Grand Canyon.

Pine Creek Rail Trail connects Jersey Shore and Ansonia through the Pine Creek Gorge area (PA Grand Canyon). It is one of several trails that comprise the **Triple Divide Trail System** (Triple Divide Greenway).

Public Lands Trails

State park trails are destination trails for park visitors and can function as segments of larger trail systems. These state park trails are found in Tioga County:

- Hills Creek State Park has 5.5 miles of trail; the Mid State Trail passes through the park.
- Colton Point State Park has 4.0 miles of trail.
- Leonard Harrison State Park has 4.6 miles of trail.

Known Trail Gaps

The PA DCNR statewide dataset of known trail gaps[6] lists seven in Tioga County. Two gaps, #158 and #274, are in fact co-located (a single gap, identified by two sources in Tioga County) between the Pine Creek Rail Trail and Wellsboro. This gap is expected to be closed by the Marsh Creek Greenway.

Five gaps have been identified in the Mid-State Trail:

- #78 is in Charleston Township; the trail follows an on-road detour around the off-road trail gap;
- #153 is a bridge over Stony Fork in Morris Township; and

[6] These gaps include snowmobile trail gaps which are not part of the Bicycle and Pedestrian Plan.

- #154, #171, and #172 are bridges along SR 2016 in Bloss Township.

Planned Off-Road Trails

Tioga County is actively planning for the development of the Marsh Creek Greenway. This ADA-accessible greenway will connect the Pine Creek Rail Trail, one of Pennsylvania's premier destination rail-trails, to Wellsboro, closing a state-identified trail gap. This 3.2-mile connection will provide a bicycle and pedestrian facility from the historic train station in Wellsboro almost due north to the existing Pine Creek Rail Trail trailhead just north of Stokesdale. It will provide local residents with a safe place to walk and bike for health and leisure and will link rail trail users to stores, restaurants, lodging, and other services in Wellsboro. The greenway lies roughly parallel to Marsh Creek, US Route 6/PA 287, and the Wellsboro & Corning Railroad, crossing all but US Route 6 along its route. The estimated project cost is $10-11 million. Construction is expected to begin by Summer 2020 or 2021. Tioga County Partnership for Community Health and PA DCNR are partners for the greenway's development.

BICYCLE AND PEDESTRIAN USERS

An online public survey to gather information about bicycle and pedestrian use in the Northern Tier planning region generated 124 responses from Tioga County residents.

The most frequently mentioned "favorite places or routes to walk or bike" included:

- Rural / local roads for their convenience, low traffic, scenery, and perceived safety.
- Bike trails, including the Mansfield bike trail for its scenery, convenience, perceived safety, no cars, easy riding, and quiet environment.
- Downtown Wellsboro and Mansfield for their safety, scenic, convenience, and social environment.

When asked about unsafe places where people regularly walk or bike, respondents again listed downtown. The most common safety issues identified were minimal road shoulder or berm, poor-quality or non-existent sidewalks, potholes, poor street crossings/intersections, poor lighting, and poor driver behavior or traffic law compliance (e.g., speeding).

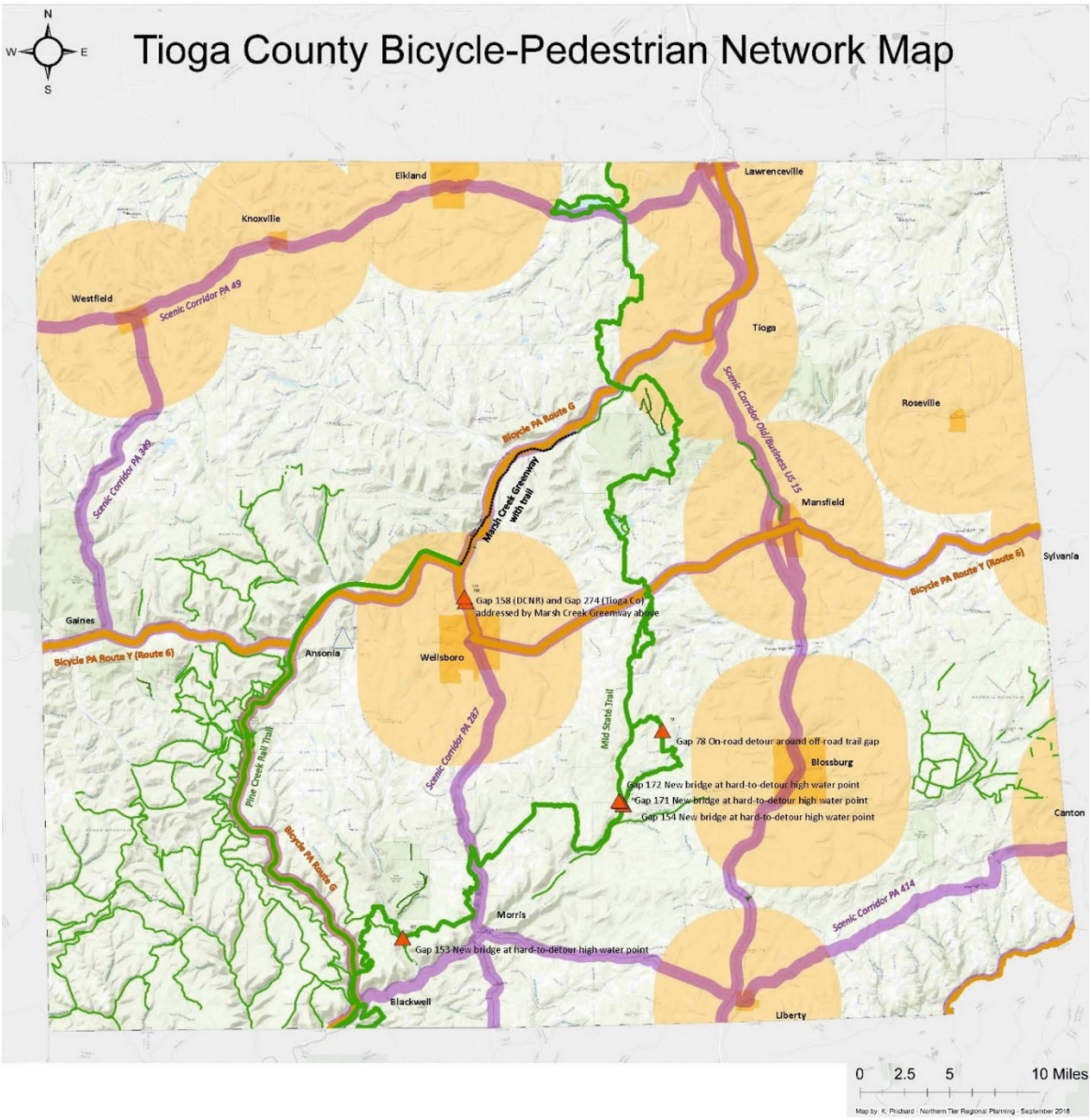
Respondents suggested the followed paired destinations that they would like to see connected with bike-friendly and walk-friendly routes.

- Main Street/Downtown Mansfield to Walmart
- Pine Creek Rail Trail to Wellsboro
- Wellsboro to Mansfield
- Blossburg to Mansfield

SAFETY PERFORMANCE

Tioga County has had 39 pedestrian crashes and 8 bicycle crashes over the past decade (2007-2016). Injury rates were similar to crash incidence rates; two bicyclist fatalities resulted.

MAP OF EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES



Legend

- Known Trail Gaps (DCNR)
- Proposed / Planned Trails (at various stages of development)
- Public Lands Trails
- Local and Regional Off-road Trails
- Major Off-road Trails
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
- Communities with Sidewalk Systems

PLAN PRIORITIES

Improve Conditions along State Highways Known for Bicycle Use

A community or county request for shoulder improvement (width), bridge with shoulder, or other condition could be coordinated with a highway resurfacing project via PennDOT Connects, PennDOT's initiative to strengthen the coordination of state and local planning. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Specifically, PennDOT completed a PA Route 6 Bicycle Master Plan Design Guide for the western section to address bicycle safety, accessibility, and connectivity along PA Route 6. The design guide discusses opportunities to improve bicycling conditions to benefit tourism and local quality of life. Such planning would benefit the eastern part of the state, including Tioga County.

Review Bicycle Use within Priority Areas for Local On-Road Bicycle Facilities

A review of user-generated bicycle routes in Tioga County, from online sources such as www.strava.com and www.gpsmyride.com, showed that most user routes are located within three miles of community centers. These users may be local residents or visitors to the area; both have valuable perspectives on the need, type, and priority for improvement. From this analysis, the planning team recommends that upcoming state highway improvement projects within three miles of a community center include a review of online sources (as available via public access or free account) and outreach to users in the project area.

Extend and Develop Trails to Interconnect Communities

The Marsh Creek Greenway is Tioga County's priority bicycle and pedestrian project. The County is assembling local and state funds from various sources to fund design services, the necessary land and right-of-way acquisition for the trail and trailhead, permitting and environmental clearances, contracting, and construction costs. More than three million dollars of the estimated $10-11 million project cost has been secured. Construction is expected to begin by 2021.

Audit Communities with Sidewalk Systems

Northern Tier has identified 11 communities with sidewalk systems or the potential for high pedestrian activity in Tioga County:

- Blossburg
- Covington
- Elkland
- Knoxville
- Lawrenceville
- Liberty
- Mansfield
- Roseville
- Tioga
- Wellsboro
- Westfield

Pedestrian or walkability audits can help these communities identify safety hazards or obstacles to daily walking routes. Documented needs can then be considered when developing state and local improvement projects. Improvements or enhancements to these pedestrian systems (or the installation of pedestrian systems where they do not currently exist) along state highways may be coordinated with future highway projects. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 3-0.

Appendix I: Wyoming County Summary

INVENTORY OF BICYCLE AND PEDESTRIAN FACILITIES

BicyclePA Routes

Bicycle Route Y passes through Wyoming County. It travels in an east/west direction along U.S. Route 6, approximately 27 miles.

Shoulder Conditions along State Highways Known for Bicycle Use

The Northern Tier Greenways Plan (2010) analyzed select state roadways for traffic volume, speed limit, and shoulder width as indicators of bicycle-friendliness and recommended shoulder widths ranging from 4 feet to 8 feet. These roadways and their plan-recommended shoulder widths in Wyoming County included:

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
US 6 / Bicycle PA Route Y	Principal arterial	1-3 ft	8 ft	• #10222 Bridge replacement; 2022 • #10138 Bridge rehabilitation; 2019
US 11	Major collector	2-4 ft west of Hillsgrove; 4-6 ft from Hillsgrove to SR 4017; 2-6 ft east of SR 4017	6 ft	• #101154 Bridge replacement; 2022
PA 29	Minor arterial	4-6 ft south of Tunkhannock; 1-4 ft north of Tunkhannock	6 ft	• #94688 Intersection improvement; 2020-2021 • #10224 Bridge replacement; 2019, 2022
PA 87	Minor arterial	1-2 ft	4 ft west of Mehoopany; 6 ft east of Mehoopany	• #85773 Bridge rehabilitation; 2019
PA 92	Minor arterial	0 ft south of Osterhout; 0-6 ft from Osterhout to Dixon; 1-3 ft north of Dixon	6 ft	• #10228 Bridge replacement; 2019 • #10229 Bridge rehabilitation; 2019, 2021 • #10174 Bridge replacement; 2021-2022 • #10181 Bridge replacement; 2022

Route	Classification	Existing Paved Shoulder Width	Recommended Paved Shoulder Width for Bike-Ped Accommodation	Programmed Roadway and Bridge Improvements (opportunities for shoulder widening/improvement)
SR 3003	Major collector	0 ft	14 ft lane	• #10162 Bridge replacement; 2022

Major Off-Road Trails

Off-road trails in Wyoming County include:

- The two-mile crushed stone pathway of the **Iroquois Trail** follows the wooded route of the Lehigh Valley Railroad's Montrose Branch through Tunkhannock. The trail has a few well-marked crossings of a country road that sees little traffic.
- The six-mile **Seneca Trail** in Eaton Township, Wyoming County, was designed for walking and biking along Bowmans Creek and Route 29 from the Monroe Township line to the Tunkhannock River Bridge.
- The **Trolley Trail** is a project of the nonprofit Countryside Conservancy. At present, the trail comprises two disconnected sections that total 4.7 miles. The La Plume to Factoryville section passes through the Keystone College campus, interconnecting with the campus' forest stewardship trails into the Borough of Factoryville.

Additionally, the **Susquehanna River Water Trail – North Branch** is a 185-mile route from the New York State border to Sunbury, where it joins the West Branch and forms the river's main stem. The water trail dips into Susquehanna County and then turns back into New York before heading south through Bradford and Wyoming counties. About half the length of the Susquehanna River Water Trail – North Branch is in the Northern Tier region.

Public Lands Trails

State park trails are destination trails for park visitors and can function as segments of larger trail systems. These state park trails are found in Tioga County:

- Hills Creek State Park has 5.5 miles of trail; the Mid State Trail passes through the park.
- Colton Point State Park has 4.0 miles of trail.
- Leonard Harrison State Park 4.6 miles of trail.

Known Trail Gaps

The Pennsylvania Department of Conservation and Natural Resources statewide dataset of known trail gaps[7] lists no gaps in Wyoming County.

[7] These gaps include snowmobile trail gaps which are not part of the Bicycle and Pedestrian Plan.

Planned Off-Road Trails

Other trail concepts in Wyoming County include the following; no detailed or official status was available at the time of this report:

- Tunkhannock to Falls
- Bowman's Creek Water Trail

BICYCLE AND PEDESTRIAN USERS

An online public survey to gather information about bicycle and pedestrian use in the Northern Tier planning region generated 14 responses from Wyoming County residents.

The most frequently mentioned "favorite places or routes to walk or bike" included:

- Rural / local roads for their convenience, low traffic, scenery, and perceived safety.
- Local parks for scenery, convenience, and safety/no cars.
- Downtown for walking safety and convenience.
- State and local roads—by necessity.

When asked about unsafe places where people regularly walk or bike, respondents listed:

- Route 6
- PA 29
- PA 92

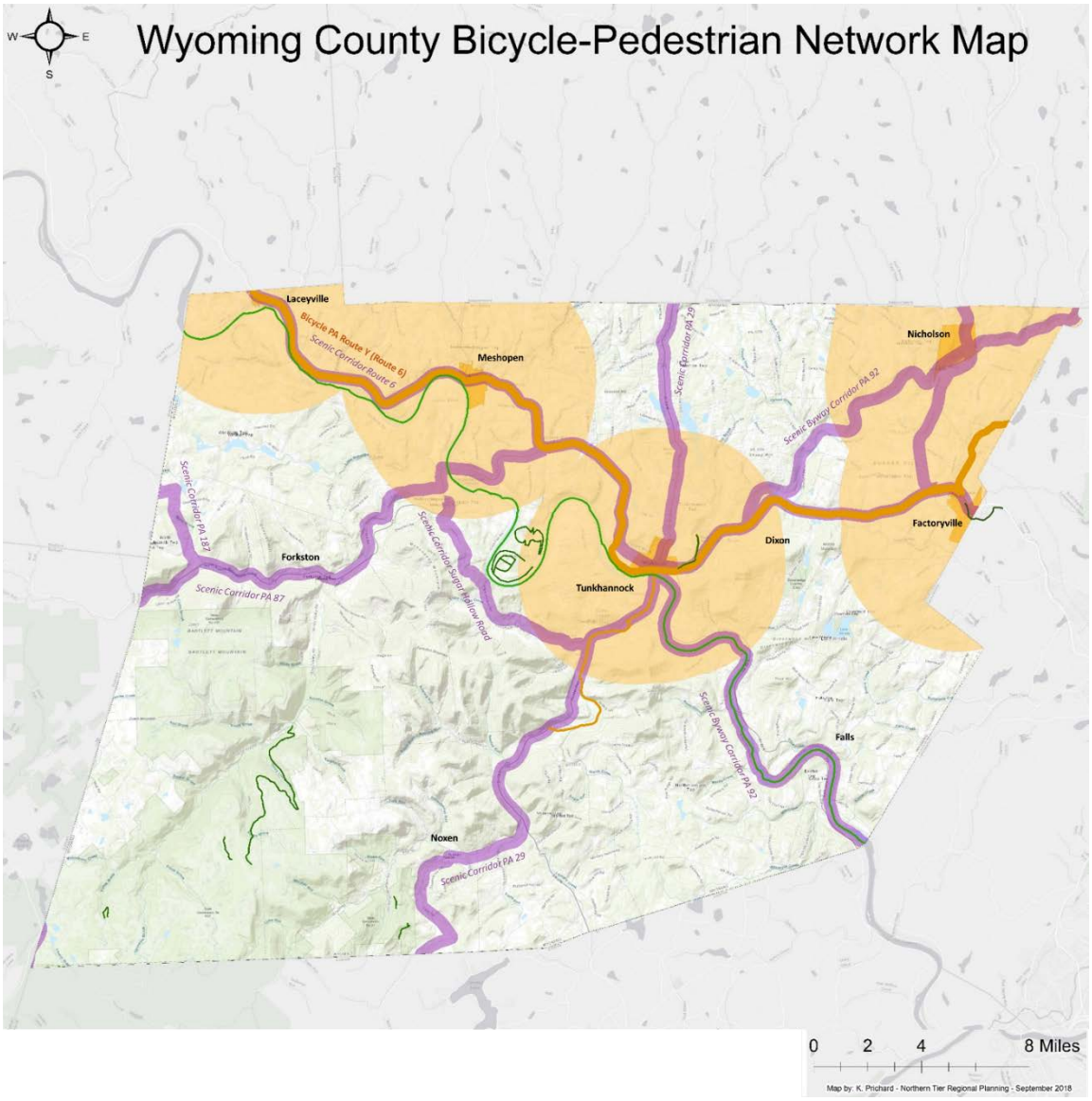
The most common safety issues identified were poor driver behavior or traffic law compliance (e.g., speeding), minimal road shoulder or berm, and lack of shoulders or separate places for walking/biking.

Respondents suggested the extension and interconnection of existing trails for longer bike-friendly and walk-friendly routes. No destination pairs were suggested.

SAFETY PERFORMANCE

Wyoming County has had 24 pedestrian crashes and 5 bicycle crashes over the past decade (2007–2016). One pedestrian fatality and one bicycle fatality were reported. There was no significant concentration of crash locations.

MAP OF EXISTING AND PLANNED BICYCLE AND PEDESTRIAN FACILITIES



Legend

- Local and Regional Off-road Trails
- Public Lands Trails
- Local and Regional Bicycling Routes
- Bicycle PA Routes (bicycle touring routes)
- Scenic Corridors (to be assessed for bicycling touring)
- Priority Area for Local On-road Bicycle Facilities
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Review Bicycle Use within Priority Areas for Local On-Road Bicycle Facilities

A review of user-generated bicycle routes in Wyoming County, from online sources such as www.strava.com and www.gpsmyride.com, showed that most user routes are located within three miles of community centers. These users may be local residents or visitors to the area; both have valuable perspectives on the need, type, and priority for improvement. From this analysis, the planning team recommends that upcoming state highway improvement projects within three miles of a community center include a review of online sources (as available via public access or free account) and outreach to users in the project area.

Extend and Develop Trails to Interconnect Communities

Priorities to expand bicycle and pedestrian facilities in Wyoming County include:

- Interconnection of the Iroquois Trail to pedestrian facilities in Tunkhannock Borough.
- A new trail from Tunkhannock to Falls, possibly as an on-road bicycling trail along PA 92, one of the Northern Tier's scenic corridors.

Audit Communities with Sidewalk Systems

Northern Tier has identified seven communities with sidewalk systems or the potential for high pedestrian activity in Wyoming County:

- Factoryville
- Forkston
- Laceyville
- Mehoopany
- Meshoppen
- Nicholson
- Tunkhannock

Pedestrian or walkability audits can help these communities identify safety hazards or obstacles to daily walking routes. Documented needs can then be considered when developing state and local improvement projects. Improvements or enhancements to these pedestrian systems (or the installation of pedestrian systems where they do not currently exist) along state highways may be coordinated with future highway projects. Discussion of the potential to coordinate or integrate projects should occur during PennDOT Connects conversations with District 4-0.